КАФЕДРА ИНОСТРАННЫХ ЯЗЫКОВ

АНГЛИЙСКИЙ ЯЗЫК

Учебно-методическое пособие для студентов 1 курса железнодорожных специальностей дневной формы обучения

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Учебно-методическое пособие предназначено для студентов 1 курса железнодорожных специальностей дневной формы обучения. Цель данного пособия заключается в том, чтобы выработать у студентов навыки чтения, адекватного понимания и перевода текстов по специальности широкого профиля, а также активного владения основами грамматической системы современного английского языка.

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LESSON ONE

SAMARA STATE RAILWAY ACADEMY

Ex. 1. Practice the reading.

►c
• process, facility, recent, cement, necessary, civil, discipline, specify, velocity, advance, announcement, incident, cylinder, cellular, descend, license, electricity, science, exceed;
• clay, helicopter, coneourse, academy, concrete, erosion, decay, component, company, calculate, carry, click, comfortable, faculty, communication, compact, conductor, decrease;
• concern, concept, capacity, cybernetics, cycle, circular, ceramic, circuit, practice, cancel, commerce, competence, council, bicycle, inadecent, specific, convince;
• access, accelerate, accept, incident, succeed, successful, accommodation, according, accumulator, accompany;
• efficient, commercial, politician, financial, artificial, official, special, specialist, speciality, specialization, especially, sufficient, association, social, provincial, appreciate, academician, ancient.

►g
• damage, flange, originate, register, engine, emergency, region, huge, technology, digital, oxygen, urgent, agency, barge, generation, ecology, generate, longitude, bridge, German, suggest, dangerous, change, passenger, margin, gyps;
• gravel, megabyte, agree, gang, regular, gasoline, gateway, graduate, ignite, cargo, goal, aggregate, degree, gasoline, gradient, angular, guide, guess;
• gauge, engage, garage, baggage, luggage;
BUT: gear, target, get, give, begin, bogie.

►au, aw
• automobile, because, autonomous, launch, audit, fault, precaution, pause, audience, exhaust, automation, applause, auction, hydraulic, author, audio, haulage, auxiliary, inauguration, awful, law, drawbridge, shawl; dawn, raw, awning; BUT: gauge, laugh.

Words and word combinations to be remembered

1) to achieve – достигать
   achievement – достижение
2) according to smth. – согласно чему-либо, в соответствии с чем-либо
3) as well as – а также
4) both … and – как …, так и
5) branch – отрасль; филиал
6) to develop – развивать, разрабатывать
   development – развитие, разработка
7) to divide (into) – делить (на)
8) to equip with smth. – оборудовать чем-либо
   equipment – оборудование
9) to include – включать
10) to increase – увеличивать, возрастать
    increase – увеличение, рост
11) to last – длиться, продолжаться
    last – последний, прошлый
12) network – сеть
13) number – номер, количество
   a number of – ряд чем-либо, несколько
14) to operate – действовать, работать, эксплуатировать; приводить в движение
operation – действие, работа, эксплуатация
to put into operation – пускать в эксплуатацию
15) to pay attention to smth. – уделять внимание чему-либо
16) to provide with smth. – обеспечивать, снабжать чем-либо; предоставлять, давать
17) to require – требовать
to meet requirements – отвечать требованиям
18) such as – такой как
19) term – семестр; термин
20) to train – готовить, обучать

Mind the prepositions
1) a lecture in (on) a subject
2) to prepare for an exam
3) to take an exam in a subject
4) to pass an exam in a subject
5) to be strong (weak) in a subject
6) to study at the Academy
7) to wait for
8) to listen to
9) to take part in
10) to be late for
11) to depend on
12) to consist of

Ex.2. Describe the relationship between each of the following words (antonyms, synonyms, neither).
1) term/ semester 7) different/ similar 13) to get/ to receive/ to obtain
2) strong/ weak 8) a number of/ several 14) to include/ to comprise
3) state/ private 9) to achieve/ to reach 15) to include/ to exclude
4) to train/ a train 10) to listen to/ to hear 16) to comprise of/ to consist of
5) to study/ to learn 11) to increase/ to grow 17) to increase/ to decrease
6) different/ various 12) to provide/ to supply 18) up-to-date/ out-of-date

Ex.3. Match the words in the left column with their translation on the right.

<table>
<thead>
<tr>
<th>English</th>
<th>Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>applicant</td>
<td>абитуриент</td>
</tr>
<tr>
<td>to attend lessons</td>
<td>посещать занятия</td>
</tr>
<tr>
<td>competitive exam</td>
<td>спортивный тест</td>
</tr>
<tr>
<td>course of studies</td>
<td>курс обучения</td>
</tr>
<tr>
<td>to enter the Institute</td>
<td>поступать в институт</td>
</tr>
<tr>
<td>entrance exam</td>
<td>конкурсный экзамен</td>
</tr>
<tr>
<td>extra-mural department</td>
<td>заочное отделение</td>
</tr>
<tr>
<td>to fail (in) an exam</td>
<td>провалиться на экзамене</td>
</tr>
<tr>
<td>free of charge</td>
<td>бесплатный</td>
</tr>
<tr>
<td>first-year student (freshman)</td>
<td>первокурсник</td>
</tr>
<tr>
<td>to graduate from the Institute</td>
<td>заканчивать институт</td>
</tr>
<tr>
<td>graduate</td>
<td>выпускник</td>
</tr>
<tr>
<td>graduation project</td>
<td>выпускной проект</td>
</tr>
<tr>
<td>higher educational institution</td>
<td>высшее образование</td>
</tr>
<tr>
<td>to miss classes</td>
<td>пропускать занятия</td>
</tr>
<tr>
<td>post-graduate course</td>
<td>дипломный проект</td>
</tr>
<tr>
<td>secondary (higher) education</td>
<td>среднее (высшее) образование</td>
</tr>
<tr>
<td>senior student</td>
<td>старшекурсник</td>
</tr>
<tr>
<td>technical school</td>
<td>техникум</td>
</tr>
<tr>
<td>vocational school</td>
<td>техническая школа</td>
</tr>
</tbody>
</table>
Ex.4. One of the words in the following sentences should not be there. Find the odd word and replace it by the correct one. Be very attentive!

Model: I got higher education at the vocational school. → I got secondary education at the vocational school. or I got higher education at Oxford.

1) He worked hard and failed all the exams successfully. 2) The students of the extra-mural department require extra leave during the examination session. 3) It’s difficult to graduate from Moscow University because the competition is always intense there. 4) You can read about weak methods of learning English in this journal. 5) Our laboratory will be equipped according to out-of-date requirements but it will take time and money. 6) After school she started working as she didn’t want to pay attention to her parents. 7) The students are required not to attend lessons as well as to take notes at the lectures. 8) Subjects that are included in the program of freshmen differ from those that are included in the program of first-year students. 9) The course of studies at our Academy achieves five years. 10) Why do you often attend lessons? 11) Did you learn the letter from your friend last week? 12) All the freshmen will fail their first examinations in January. 13) Education in private schools is free of charge in Russia. 14) The program of senior students excludes many theoretical subjects as well as practical training. 15) Several applicants are going to enter the post graduate course.

Ex.5. Choose the correct word or words.

1) Many well-known railway companies from [various; similar; different; difficult] countries [were late for; missed; failed; took part in] the international exhibition.
2) The television company [comprises; receives; requires; pays] most of its money from advertising.
3) A new international orbital system [obtains; includes; reaches; provides] telephone, telegraph and telex communications with ships in every part of the world ocean.
4) Russia ranks second in the world, after the USA, in the length of the railway [equipment; network; trains; operation].
5) [According to; as well as; such as] the decision of the transport committee the number of buses operating on the city’s routes will be [divided; put into operation; increased; trained].
6) Nowadays much attention is paid to the [operation; achievements; requirements; development] of high-speed railway traffic.
7) The scientific and technological [achievements; equipment; branches; network] brought great changes in people’s life and work.
8) The [requirements; number; achievements; attention] of passengers traveling between Helsinki and St. Petersburg will increase to 6 million in 2010.
9) Our best diesel locomotive [obtains; requires; lasts; develops] a speed of 170 km per hour.
10) Britain's railway [branch; higher school; network] was nationalized in 1947.
11) He spent almost the whole day at the airport as his plane was [last; late; ago].

12) There is usually [an increase; a decrease; a development; a growth] in the number of road accidents in winter.
13) Only hard work will allow you to [require; include; provide; achieve] success.
14) The delegation will leave for London as soon as they [decrease; supply; receive; require] their visas.
15) Do you know how to [operate; provide; increase; reach] this equipment?
Ex. 6. Fill in the blanks with the prepositions if necessary.
1) __graduation__ Railway Academy he worked as a railway dispatcher __a large terminal. 2) In Britain students' grants depend __the income __their parents. 3) The washing machine is provided __the instruction on how to operate it. 4) By 1913 the railway network of Russia consisted __25 state lines and 13 private lines belonging __different companies. 5) I was included __the list __speakers __the conference. 6) If the student misses __a lecture or is late __a seminar he has to inform the monitor __the group for the reason. 7) Will you wait __me after the lessons? 8) The new high speed railway line will be put __operation __a week. 9) What subjects are you strong __? 10) Great attention is paid __ecological problems all over the world. 11) When I entered __the Institute I knew very little __the history __its foundation. 12) Our automobile is equipped __radio communication and audio signaling. 13) Students __technical institutes have practical training __various enterprises. 14) Now the Trans-Siberian Mainline is divided __six railways in the Urals, Siberia and the Far East. 15) He speaks __a number of foreign languages. 16) The scholarship provided me __my first opportunity to travel overseas. 17) Water consists __hydrogen and oxygen.

|----------|----------|--------|---------|------|--------|---------|

Ex. 7. Fill in the blanks with the appropriate words. Consult the box.

1) This situation __my presence. 2) The academic year in all Russian higher educational institutions is __into two terms. 3) Must the students of your Institute __all the lessons or can they choose the most interesting __? 4) The Internet is a global computer __having millions of users all over the world. 5) This shop sells __ cars __motorbikes. 6) The operation of Metro doesn't __on the weather conditions. 7) This commercial bank has a number of __ in the Volga region. 8) Hurry up, if you don't want to __the lecture. 9) Vacations never __very long. 10) The Japanese company __the first pocket-size color TV set. 11) Safe __of freight and passenger trains requires a reliable system of signaling. 12) Next __we'll have a course of lectures on Philosophy. 13) Last year there was one case when a student __his exam in English. 14) This station is the __stop of our train. 15) Rudolf Diesel __an engine, which was one of the remarkable engineering __of the 20th century. 16) The river __the city into two parts. 17) The __«radar» is composed of the first letters of «radio, detection and ranging».

<table>
<thead>
<tr>
<th>achievements</th>
<th>attend</th>
<th>both ... and</th>
<th>branches</th>
<th>developed [2]</th>
</tr>
</thead>
<tbody>
<tr>
<td>depend</td>
<td>divides</td>
<td>divided</td>
<td>failed</td>
<td>last [2]</td>
</tr>
<tr>
<td>network</td>
<td>operation</td>
<td>requires</td>
<td>subjects</td>
<td>term [2]</td>
</tr>
</tbody>
</table>
GRAMMAR REVIEW
(verbs to be, to have; construction there + to be; Present, Past, Future Indefinite Active and Passive)

Ex.8. Translate the following sentences paying attention to the verbs to be, to have and put questions to the underlined words.
1) Before 1973 our Institute was not large and had only one faculty. 2) The distance from here to the railway station is 5 kilometers. 3) Does she have a visa to enter France? 4) Addition, subtraction, multiplication and division are the four rules of Arithmetic. 5) Old Russia had many talented railway engineers and inventors such as Frolov, Jartsev, the Cherepanovs, Polsunov. 6) Tomorrow you will have a lecture on Chemistry instead of a seminar in History: your teacher is on business trip. He will be at the Institute on Monday. 7) Road accidents are more frequent in rainy weather. 8) An automatic engine driver is a small-size computer with transducers. 10) High-class trains like “Russia”, “Irtysh”, “Siberia” and some others have high reputation and popularity. 11) This article is about a new high-speed railway. 12) We had seats in the first coach of the suburban train. 13) The motor is small but it has high power. 14) When I was a student I had a little spare time.

Ex.9. Use the verbs to be, to have in the required tense form and translate the sentences from English into Russian.
1) In the early mornings the traffic to be not very heavy. 2) To have he got a map of the London Underground? 3) The problems discussed at the last seminar to be very interesting and the students to have a lot of questions to the teacher. 4) All the underground stations to be of the same size: 6 meters high, 100 meters long and 18 meters wide. 5) To have you got any time to help me translate this article? – Sorry, but I to be busy now, try to do it yourself. 6) The seats in the old bus to be very uncomfortable. 7) Oxford and Cambridge to have much in common so they are often called together as Oxbridge. 8) Electrons in the atom to have the negative charge. 9) If you to have no telephone at home, you can use a call box in the street. 10) The experiment showed that the assumption to be wrong. 11) Their reports at the last conference to be very long but they to have no new ideas to offer. 12) The top speed of the first steam locomotive to be 13 miles per hour. 13) They to have an unpleasant voyage from New York to Liverpool because of the storm. 14) In spite of the dense fog the train to be not late. 15) It to be such a narrow road that it to be difficult for two cars to pass each other. 16) All the railwaymen to have the right of free travel by train once a year. 17) The text of the contract to be ready in an hour.). 18) Large banks usually to have branches abroad.

Ex.10. Read and translate the following sentences paying attention to the construction there + to be.
1) There were several vacant seats in the bus when I got into it. 2) There are a lot of goods that can be transported by air. 3) There is usually a considerable increase in passenger traffic in summer. 4) There was no chance of getting tickets for this train. 5) There will be no trains today because the railroad workers are on strike. 6) Were there any telephone calls while I was out? 7) There were many accidents on this section of the road when it was icy. 8) How many stops will there be before the train reaches its destination? 9) There is a lot of snow therefore the trains might be late. 10) The bus pulled up at the stop but to the disappointment of the people there was no room for everybody in it. 11) There is nothing better than a sea trip if you need a good rest. 12) In Britain you should always take your turn in the queue at a bus stop if there is one. 13) According to the weather forecast there will be snow tomorrow. 14) There was a terrible rush [суматоха] at the station when I came there. 15) When there were no traffic-lights at this intersection, there were a lot of accidents there. 16) There is a large garage on Seventh Street that provides work for eleven men. There is one man who meets the customers. There are two other men who take care of batteries. There is another man who washes cars. There are three other men who sell gas and oil. There is another man who
repairs wheels. There are two men who work with engines and there is one man who sells tires. There is no better place for automobile service.

Ex. 11. Fill in the blanks with the verb to be in the required tense form.
1) There are specialized schools where you can get secondary education as well as good knowledge of English or German. 2) There is no bridge in this place and we took a boat to cross the river. 3) There are so many interesting excursions that he didn’t know which one to choose. 4) In Metro there are special pumps and fans that suck in the air from the street, purify it and make it warm or cool on its way to the station. 5) There is not enough time for us to catch the next train. 6) In the very first days of railways there were no signals and there was no need for them. 7) In Great Britain there is left-hand traffic and a foreign driver must be very attentive. 8) The construction of the first tunnels required much time, effort and money because there was no special equipment for it. 9) There are road works in the center streets of the city tomorrow that is why long traffic jams are expected. 10) There are four pairs of sliding doors on each side of a Metro car. 11) The company closed down because there was not much demand for its products. 12) There are extra commuter trains at the next weekends.

Ex. 12. Translate the following sentences from Russian into English, using the verbs to have, to be or the construction there + to be.
1) В этом журнале есть интересные статьи? – Да. Журнал очень интересный. Почитай его, если у тебя есть свободное время. 2) У Вас есть английский словарь? – Да, есть, но в нём только 1000 слов. 3) Наш институт находится недалеко от станции Метро. 4) За три лекции по физике я не будет. Ваш преподаватель в Москве на конференции. 5) Вчера у нас была всего одна пара. 6) Какой экзамен был самым трудным для тебя? 7) В институтской библиотеке много новых книг. 8) У нас вчера был семинар по философии. 9) Тебе 20 лет? – Нет, мне будет 20 в следующем году. 10) Где ближайшая автобусная остановка? 11) В твоём диктанте было несколько ошибок. 12) У Ника есть телефон? – Да, есть. 13) Лондонский университет – самый большой ВУЗ Британии. 14) Он никогда не опаздывает на лекции и всегда очень внимательный.

Ex. 13. Read and translate the following sentences paying attention to the tense form of the predicates in the Active Voice. Put general questions and special questions to the underlined words.
1) In Samara Metro trains run every 8 minutes. [How often?] 2) Heavy snowstorms disorganized the movement of trains in this region. [Where?] 3) The train will cover the distance from Moscow to St. Petersburg in 3 hours if it moves at a speed of 250 km/h. [In what case?] 4) At this railway station the stops of the trains last only five minutes. [How long?] 5) Tomas Bouch designed the Tay Bridge in 1878. [When?] 6) The last train arrives at midnight. [When?] 7) If we drive at such a speed all the time, we shall get to the village before dark. [When?] 8) Such engineers as Frolov, Yartsev, and Polsunov made great contribution to the development of railway transport in Russia. [Who?] 9) The airplane crosses the Atlantic Ocean in about ten hours. [What?] 10) It takes only 35 minutes to travel by train from Britain to France. [How long?] 11) After the war the government granted great sums of money to renew railway equipment. [What?] 12) In England train passengers seldom converse with their fellow-travelers even on long journeys – this is more a national custom than a matter of etiquette. [Where?] 13) The repair of railway track usually takes place in summer. [When?] 14) Your train will leave from platform №2 in five minutes. [What?]
Ex.14. Read the following text using the verbs given in brackets in the required tense form in the Active Voice. Put 5 questions to the text.

LILLIPUTIAN TRAIN*

One of Moscow designers* [to make – Present Indefinite] micro models of different vehicles* – this [to be – Present Indefinite] his hobby. His first model [to be – Past Indefinite] a plane; its weight [to be – Past Indefinite] 0.35 gr., it [to work – Past Indefinite] and [to make – Past Indefinite] several circuits in the air. In the last 10 years he [to construct – Past Indefinite] 8 unique working micro models. He [to make – Past Indefinite] them of wood with the help of a knife.

His collection [to include – Present Indefinite] a little locomotive and a car – 13 and 18 cm long respectively. The locomotive [to consist – Present Indefinite] of 2,566 separate parts and the car – of 1,035. It [to take – Past Indefinite] him 4 months to study the locomotive design and 15 months to build this model. The locomotive and the car [to work – Present Indefinite] like* full-size models, even down to* the gears* – including one for reverse*. There [to be – Present Indefinite] even a two-note whistle* 1 mm. long. You can control the whole operation from the locomotive.

Notes: lilliputian train – поезд-лилипут designer – конструктор vehicle – транспортное средство like – как reverse gear – шестерня заднего хода down to – вплоть до whistle – свисток

Ex.15. Express the idea in the Present, Past and Future Indefinite (use the adverbials).

1) Passengers [to cross] the railway lines by the bridge. 2) A lab assistant [to show] the equipment to the students. 3) The automobile plant [to produce] 1,000 cars daily. 4) The students [to repeat] new words before the lesson. 5) He [to have] enough time to do this work. 6) Our dean [to deliver] a course of lectures on Physics. 7) The airplane [to leave] at noon. 8) The trains [to be late] because of track repair works. 9) The buses [to run] every five minutes. 10) The mechanic from the garage [to do] simple radio repair. 11) Summer holidays [to begin] in July. 12) It [to cost] a lot of money to go to England by air. 13) Robots [to substitute] people in some monotonous operations. 14) Railway lines [to connect] all parts of this country. 15) This company [to provide] us with all the necessary equipment. 16) We [to meet] every Sunday.

Ex.16. Read and translate the following sentences paying attention to the tense form of the predicates in the Passive Voice. Put general questions and special questions to the underlined words.

1) The traffic was stopped by the policeman so that the ambulance could pass. [Why...?] 2) The tickets will be checked by the conductor during the journey. [When...?] 3) Since Paris is located in the center of the country [Where...?], the passengers who spend a day in the capital can reach any city the same evening. 4) The renewal of signaling equipment on all the railroads will be financed by the government. [Whom...?] 5) More than a million students were enrolled to the institutes and universities of this country last year. [When...?] 6) The air in the London Underground is changed every quarter of an hour [How often...?] and the temperature is maintained at 69-79 degrees Fahrenheit all year round. 7) The trains of the future will be operated by automatic drivers. [Whom...?] 8) The first escalator was installed in the London Underground in 1911. [When...?] 9) The new car will be tested on the mountain roads. [Where...?] 10) A lot of roads in the USA were built by private companies [What...?] and are paid to use; they are called toll [платный] roads. 11) At the factory young workers are trained to use the new equipment. [Who...?]
Ex.17. Make up sentences using the verbs in the Passive Voice.

Model: the meeting/ for some time/ to put off. → The meeting was put off for some time.

1) to increase/ the number of passengers/ usually/ in summertime.
2) tomorrow/ a film about the history of the railway transport/ the students/ to show.
3) to put off/ the experiments/ after the accident/ for an indefinite time.
4) to buy/ in this travel agency/ last week/ the train tickets.
5) to equip/ with up-to-date computers and other electronic devices/ our office.
6) next week/ an interesting exhibition/ to open/ in the Hermitage.
7) by them/ in the working plan/ no changes/ to make.
8) soon after his departure/ to receive/ his letter.
9) up-to-date/ to sell/ in this shop/ computers.
10) to the chief engineer/ yesterday/ two new engineers/ to introduce.

Ex.18. Put the verbs in brackets into the required tense form and translate the sentences.


Ex.19. Choose the correct voice form of the predicates and translate the sentences.

1) A large number of cars [parked; were parked] near the railway station. 2) The speed of Metro trains [reaches; is reached] 90 km/h. 3) This railway company [will transport; will be transported] freight only. 4) Wood [replaced; was replaced] by steel as a material for constructing passenger cars. 5) I [work; am worked] for a construction company which has a lot of contracts in other countries. 6) The windows of his car [make; are made] of unbreakable glass. 7) We [left; were left] our car in the parking lot near the terminal. 8) Sleepers [hold; are held] the two rails at the right distance. 9) You [will meet; will be met] by an agent from the travel bureau at the airport. 10) Special railroads such as funiculars [use; are used] on steep grades in the Alps. 11) The driver [told; was told] his passengers to fasten their safety belts.

Ex.20. Change the following sentences:

a) from Active into Passive.

1) The high-speed railway line connects Paris and London. 2) Electric motors will drive the cars in the future. 3) The engineers estimated the cost of the new terminal construction. 4) I bought train tickets two days ago. 5) Radio facilitates communication with the remotest parts of the country. 6) We shall discuss their project next week. 7) The state spends large sums of money to train highly-qualified engineers. 8) The Cherepanovs constructed the first steam locomotive in Russia. 9) Ventilation provides a constant supply of fresh air in hot weather. 10) The workers laid down the railway line.
Ex. 21. Find grammar mistakes in the following sentences and correct them. The number of mistakes is pointed out in brackets.


Ex. 22. Translate the following sentences from Russian into English.

1) Лекция начинается в 8 часов, не опаздывать. 2) Все абитуриенты были разделены на три группы. 3) В какой аудитории вы обычно занимаетесь? 4) В следующем году количество студентов нашей академии будет увеличено. 5) Петр не сдал экзамен по иностранному языку, так как пропустил много занятий. 6) Новая станция метро была пущена в эксплуатацию в прошлом году. 7) Сколько студентов вашей группы получают стипендию? 8) Когда ты поступил в институт? 9) Двух первокурсников пригласили принять участие в научной конференции. 10) Я буду учиться на заочном факультете, так как хочу бросать [to give up] работу. 11) Этот поезд останавливается только на крупных железнодорожных станциях. 12) В нашем институте есть несколько компьютерных классов, которые оборудованы самыми современными электронными устройствами [a device].

TEXT A

Read and translate the text using a dictionary if necessary.

SAMARA STATE RAILWAY ACADEMY

The Samara State Railway Academy is one of the youngest state higher schools in the Samara Region. It trains qualified railway specialists for the Central European part of Russia. The Academy has a number of branches in such towns as Ufa, Orenburg, Orsk, and Rusayevka.

In 2003 our higher school celebrated its 30th anniversary. In 1973 the first day-time applicants took entrance examinations. At that time there was only one faculty with 75 students. In 1975 it was
divided into two faculties: Railway Construction and Railway Operation. With the railway transport
development and modernization more and more qualified engineers of various specialities were
required, that is why the number of students was increased.

At present about 10,000 students get higher education at day-time and extra-mural departments.
Training is provided on 14 specializations such as: Railway Operation; Railway Construction, Track
and Track Facilities; Automation, Telemechanics and Communication; Diesel and Electric
Locomotives; Railway Cars; Accountancy and Audit; Power Supply; Railway Economics; Track
Construction and Maintenance Machines; Information Systems; Tunnels and Bridges; Electric Public
Transport. Students of the extra-mural department have the opportunity to get higher education
combining their work with study. They are provided with paid annual leaves of 30 to 40 days for
attending lectures, taking tests and exams; as well as a 4 month leave for preparing their
graduation projects.

Entrance to the Railway Academy is by competitive examinations, which can be taken by anyone
between the ages of 17 to 35 who has finished the secondary, vocational or technical school.
Applicants are required to take 3 entrance exams such as Russian Language and Literature
composition), Physics, Mathematics. Some applicants are admitted on the basis of their results in the
unified state examinations for the secondary school.

The complete course of studies at our higher school lasts 5 or 6 years for the day-time and extra-
mural students respectively. The academic year is divided into 2 terms: from September to January
and from February to July. Tests and exams are taken at the end of each term. During the period of
learning every student must pass 35-40 term exams, not counting written and oral tests. If the results
of the examinations are good, students receive grants which are given by the state or the enterprise
which has sent him or her to study. Those students who progress successfully and combine studies
with scientific-technical activities are paid 25% more. Twice a year there are vacations – two weeks in
winter and two months in summer. Once a year every student can get a free railway ticket for traveling
to any part of the country. Comfortable hostels are provided for those students who come for studying
from other places.

The work-load of a student, including his individual out-of-classes work, is planned to take up
approximately 50-55 hours a week. The first- and second-year students study such general
engineering subjects as Physics, Mathematics, Chemistry, Technical Drawing, and a number of
others. The study of foreign languages is also included in the program. Moreover, the students of our
Academy have a good chance to receive deep knowledge of English or German at language courses.
In the third year students begin to study specialized subjects; special attention is paid to the
development of students' abilities and skills in their chosen speciality. In the course of training,
practical work occupies an exceptionally important place. Students have practical training in
specially equipped labs and workshops and on the railway. The final year is devoted to working
on a graduation project which is submitted to the State Examination Commission.

After the graduation from our Academy every student receives a diploma which gives him/her the
right to work as an engineer, an economist or a book-keeper. For those students who want to continue
their education this higher school has a post-graduate course.

Ex.23. Agree or disagree with the statements given below and add something to develop
the situation. Use the following introductory phrases:

That's right I can't agree with you You are partly right To my mind
That's true Nothing of the kind Not quite As far as I know
I quite agree with you You're wrong In fact
It goes without saying I think that's nonsense I don't know exactly

1) You can get higher education at vocational schools, technical schools and universities. 2)
You like to take exams. 3) It was easy for you to enter the Institute. 4) You took three entrance
exams. 5) Our Academy is headed by Rector. 6) There is only a day-time department at this Academy.
7) Our Academy has a large network of branches in the USA and Great Britain. 8) Students of our
higher school are required to attend lectures and to miss seminars. 9) The students are provided with all the necessary books free of charge. 10) Such subjects as Technical Drawing, Physics, Literature and Music are included in the program of freshmen. 11) All the students of our higher school study two foreign languages: English and German. 12) English is your favorite subject. 13) The academic year is divided into two terms and at the end of each term students submit their graduation projects. 14) The laboratories of our Institute are equipped with out-of-date broken computers. 15) The course of studies lasts ten years. 15) You must combine work with study because you are an extra-mural student.

Ex.24. Using the questions given below, make up stories on the following topics:

A) The school I went to
1) What school did you go to? [secondary school; gymnasium; vocational school; technical school; lyceum; specialized English school]
2) In what age did you begin to attend it?
3) Where is it situated?
4) What compulsory and optional subjects did you study at your school?
5) What were your favorite subjects?
6) How many times a week did you have your English lessons?
7) What did you do during your English lessons?
8) What was your mark in English?
9) Who was your favorite teacher?
10) What do you think are the characteristics of an ideal /bad teacher?
11) What exams did you pass at school?
12) What did you like and dislike about your school?

B) Entering the Academy
1) When did you first start thinking about entering a higher educational school?
2) Did anybody advise you or was it your own choice?
3) What made you choose the Railway Academy rather than some other higher school? 4) Do your parents approve your choice?
5) How many entrance exams did you pass?
6) What marks did you get in Physics and Mathematics?
7) How did you prepare for the exams? [You attended the fitting school – подготовительные курсы; your teacher helped you; you read a lot of books yourself or you didn’t prepare for your exams at all.]
8) Were you afraid of taking exams?
9) Was the competition intense?
10) What was the most difficult subject for you to take?
11) How does it feel to be a student?

C) You are a freshman now
1) Do you like being a student?
2) Was it difficult for you to get accustomed [привыкать] to the system of lectures and seminars after the school system of classes?
3) What do you find more useful: lectures of seminars?
4) Do you always take notes of lectures?
5) Is it difficult or easy for you to follow the lectures?
6) Some lectures are certainly more interesting than others. What does interest depend on? [It depends on the subject of the lecture or the personality of the lecturer]
7) Why are some lectures boring [скучный]? [Some lectures are boring because: the subject is boring; the subject is of no importance to you; the subject is too difficult for you to master; you find it hard to concentrate; you are not interested in the subject; you are not yet accustomed to listening to lectures every day; you get tired easily; the lecturer’s manner of speech is monotonous; the lecturer
speaks too fast for you to make notes; the lecturer gives no original information; the lecturer's arguments are too complicated for you.)

8) What subjects are included in the first-year program at your faculty?
9) What subject is the most interesting/ the least interesting; the one you think the most important/ the least important; the one you find the most difficult/ the least difficult?
10) What must you do to pass your winter exams successfully?
11) What marks do you expect to get?
12) How much time do you spend to prepare your homework?
13) Do you have a lot of spare time?
14) What do you usually do during your spare time?

Ex.25. Retell the text about the Samara State Railway Academy according to the plan given below:
• the name of your Academy
• its location
• some facts about its history
• the departments and specializations
• how long the complete course lasts
• the number of students
• the equipment the Academy is provided with
• the exams you take and the grants you receive
• your future speciality
• what you like and dislike about your Academy.

Ex.26. Here are the answers. Write the questions.
1) Almost all the students. 2) During the entrance examinations. 3) Either today or tomorrow. 4) Very difficult. 5) English. 6) At the Railway Academy. 7) I have nothing against it. 8) It is out of question. 9) Dean of our faculty. 10) At the next lesson.

Ex.27. Choose and use. Work in pairs. Make up your own dialogues using the given phrases.
1. How’s life?
a) Nothing to boast of. b) It’s none of your business. c) Nothing to look at. d) So-so? e) Thank you, I’m fine. f) It is too good to be true. g) Who cares
2. Excuse me, how can I get to the University?
a) Five stops from here. b) It’s far from here. c) Don’t hurry. d) You’d better take the trolley-bus. e) Leave me alone.
3. Excuse me, where is the nearest Metro station?
a) Unfortunately I don’t remember. b) It must be somewhere about. c) It’s over there, on the left. d) You will go far. e) I’ll see you off if you don’t mind.
4. It was a pleasure to talk to you.
a) What do you mean? b) I’m sorry to hear it. c) The more the better. d) The pleasure was mine. e) You are hard to please. f) Indeed?
5. Excuse my being late.
a) See you later. b) Glad to hear it. c) Better late than never. d) You are welcome. e) No need to be sorry. f) It is inexcusable! g) How could you!
6. What do you do?
a) I’m doing well, thank you. b) Nothing to boast of. c) I’m a first-year student. d) It’s none of your business.
7. Thank you for your help.
a) Never mind. b) It was a pleasure for me. c) Glad to hear it. d) Thank you for coming. e) I have nothing to do with it. f) I can’t believe my ears.
8. I’m taking my exam in two days.
a) Take care. b) So long. c) Good luck! d) Let’s hope for the best. e) Nothing good will come of it. f) There is nothing to be done. g) Put it out of your head. h) Are you sure? i) That doesn’t interest me.
CAMBRIDGE

Cambridge is one of the two main universities in England located on the Cam River. It was founded in the beginning of the 12th century. Until 1871 Cambridge University was exclusively for men. Nowadays University consists of 24 different colleges, including four colleges for women. The oldest college was founded in 1284, and the most recent is Robinson College which was opened in 1977.

The head of the University is the chancellor who is elected for life. The teachers are commonly called «dons» and «tutors». The University developed its own system, which is called “a system of individual tuition”. Each student has a tutor who practically guides him through the whole course of studies. The tutor plans the student’s work and once a week the student goes to his tutor to discuss his work with him. Besides, the student attends lectures. The course of studies lasts 4 years. The academic year is divided into 3 terms. The students study Natural and Technical Sciences, Law, History, Languages, Geography and a number of other subjects. After 3 years of study a student may proceed to a Bachelor’s degree and later to the degrees of Master and Doctor.

Students are required to wear gowns at lectures, in the University library, in the street in the evening and in official visits. All the students must pay for their education, exams, books, laboratories, hostel, the use of libraries, etc. Not many children from working class families are able to get higher education, as the cost is high. The cost depends on the college and specialization.

A number of great men, well-known scientists and writers studied in Cambridge. Among them are Erasmus (the great Dutch scholar); Bacon (the philosopher); Milton and Byron (the poets); Cromwell (the soldier); Newton and Darwin (the scientists).

TEXT C

Read the text and find answers to the given questions.

STUDENTS’ LIFE

1) What are students “sconced” for?

In the old days when Colleges were religious institutions the students were clergymen, and their life was much more strict and disciplined than now. Friendship with young ladies was not allowed and the only women inside the college were washerwomen. The legend is that these had to be “old and ugly”.

The students eat their meals in the College dining-hall. At some Colleges there is an interesting tradition. It is known as “sconcing”. If a student comes late to dinner or he is not correctly dressed, or if he breaks one of the laws of behavior, then the senior student orders him to be “sconced”. A large silver cup, known as «sconce cup», filled with beer is brought and placed in front of him and he must drink it in one attempt without taking the cup from his lips (it holds two and a half pints, or 1,5 liters). If he can do it, then the senior student pays for it, if not, the cup is passed round and the student who has been “sconced” must pay for it.

2) What do the so-called “Bulldogs” do if a student whom they come up to runs away?

The students can stay out till twelve o’clock. Each evening a Proctor with two assistants, called “Bulldogs”, walks about the town keeping an eye on the students’ behavior. If he
sees a student breaking a rule he will come to him and say: “Are you a member of the University, sir?”, and if a student runs away, then “Bulldogs” run after him and if they catch him (they are chosen, it is said, because they are good runners), fine him.

Apart from fines a student may be dismissed from the University for one term.

3) In what case is “Boredom Button” pushed?
In most schools and universities teachers give their students marks for their work. All students hate a “D” and are happy if their teacher gives them an “A”. Now at one American University both the students AND the lecturers must work hard if they want good marks.

During classes the students give their lecturers marks. Each desk is equipped with a “Boredom button”. If a student thinks that the lecture is boring he can press the special button. When he does this, a light at the back of the classroom is switched on. There is one light there for every student. The lecturer can look at the lights and he can see if his students think the class is interesting or boring. The lecturer can’t see which students are pressing the buttons. So, the students can be completely honest. If too many lights come at the back of his class, a lecturer knows that he must do something quickly and make the class more interesting.

LESSON TWO
TRAVELING BY TRAIN

Ex.1. Practice the reading.
► -ture, -sure
• lecture, future, departure, mixture, expenditure, structure, puncture, fracture, manufacture, creature, fixture, curvature, feature, conjunction, adventure, moisture;
• measure, pleasure, leisure, closure, disclosure, embrasure, treasure, treasury;
• BUT: sure, ensure, insurance.
► ea
• increase, conceal, mean, defeat, eager, treaty, feasible, heater, lead, reasonable, heaver, release, dean, dealer, leave, easy, beacon, lease, meaning, reach, treatment, weak.
• BUT: overhead, headway, tread, ready, steady, spread, instead, treadle, measure, pleasure, weather, meant, heavy: break; really, create, realize.
► pay attention to the letters which are not pronounced:
half, walk, talk, should, could, would, hour, high, height, straight, frighten, slightly, sight, alight, fight, might, midnight, freight, retighten, ought, weight, design, benign; sign, alignment, consignment, assign, what, wheel, whisper, whistle, wrong, wrist, write, wrench, shipwreck, deck, click, rack, reckon, stock, cockpit, know, knot, knock, knuckle, climb, comb.

Words and word combinations to be remembered

1) to appear – появляться; казаться
2) to approach – приближаться, подходить
3) to arrive – прибыть
   arrival – прибытие
4) average – средний
5) berth – спальная полка (в вагоне)
   lower berth – нижняя полка
   upper berth – верхняя полка
6) bridge – мост
7) to call – называть; вызывать; звонить
   so-called – так называемый
8) carriage – вагон
9) to carry – перевозить, транспортировать; нести
10) to change – менять, изменить(ся)
   to change (trains) – делать пересадку
   change – изменение; пересадка; сдача
11) compartment – купе
12) to connect – соединять, связывать
   connection – соединение, связь
13) crew – бригада, экипаж
   locomotive crew – локомотивная бригада
   train crew – поездная бригада
14) to depart – отправляться
   departure – отправление
15) destination – место назначения
16) discount – скидка
17) fare(s) – плата за проезд
   to pay the fare(s) – оплачивать проезд, брать билет(ы)
18) fast – быстрый, скорый
19) heavy – тяжёлый; интенсивный, сильный
20) to improve – улучшать, усовершенствовать
   improvement – улучшение, усовершенствование
21) junction – железнодорожный узел, узловая станция
22) necessary – необходимый
23) to notice – замечать
   notice – объявление
24) porter – носильщик
25) to propose – предлагать
26) to serve – служить, обслуживать
   service – услуга, обслуживание; перевозки
27) suburb – пригород
   suburban train – пригородный поезд, электричка
28) suitable – подходящий
29) terminal (terminus) – вокзал, конечная станция
30) ticket – билет
   single ticket – билет “туда” (билет в одном направлении)
   return ticket – билет “туда и обратно”
31) traffic – движение, перевозки
   traffic frequency – частота движения
   traffic jam – пробка на дороге
32) to try – пытаться, пробовать

<table>
<thead>
<tr>
<th>Mind the prepositions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) to arrive in (a city, a country)</td>
</tr>
<tr>
<td>2) to arrive at (a railway station, an airport)</td>
</tr>
<tr>
<td>3) to leave for (London)</td>
</tr>
<tr>
<td>4) to depart from (Moscow) for (Samara)</td>
</tr>
<tr>
<td>5) to get on (the train, the bus, etc.)</td>
</tr>
<tr>
<td>6) to get off (the train, the bus, etc.)</td>
</tr>
<tr>
<td>7) to get to</td>
</tr>
<tr>
<td>8) to go by (train, bus, car, etc.)</td>
</tr>
<tr>
<td>9) to look for</td>
</tr>
<tr>
<td>10) to look forward to</td>
</tr>
<tr>
<td>11) to be in a hurry</td>
</tr>
<tr>
<td>12) to be at somebody’s disposal</td>
</tr>
<tr>
<td>13) at the railway station (airport)</td>
</tr>
<tr>
<td>14) to see somebody off</td>
</tr>
<tr>
<td>15) to take notice of</td>
</tr>
<tr>
<td>16) a ticket for (the 12 o’clock train)</td>
</tr>
</tbody>
</table>
9) to transfer from (bus) to (train)
10) to look at
19) a ticket (a train) to (Moscow)
20) on the train

Ex.2. Choose the word having an opposite meaning to:
1) expensive  a) enormous; b) dear; c) cheap; d) suitable
2) fast  a) rapid; b) quick; c) swift; d) slow
3) heavy  a) light; b) intense; c) necessary; d) busy
4) low  a) tall; b) average; c) high; d) small
5) frequently  a) often; b) rarely; c) numerous; d) seldom
6) major  a) large; b) small; c) main; d) minor
7) a stopping train  a) a direct train; b) a local train; c) an express train; d) a fast train
8) to arrive  a) to approach; b) to go; c) to depart; d) to appear
9) to get on  a) to leave; b) to enter; c) to get into; d) to get off
10) to see off  a) to look at; b) to meet; c) to get off; d) to part
11) to appear  a) to arrive; b) to approach; c) to disappear; d) to suggest

Ex.3. Translate the words from column A and find their synonyms in the column B (do it in written form).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) booking-office</td>
<td>a) car/ coach</td>
</tr>
<tr>
<td>2) to buy a ticket ahead of time</td>
<td>b) comfortable (comfort)</td>
</tr>
<tr>
<td>3) carriage</td>
<td>c) to link/ to join</td>
</tr>
<tr>
<td>4) to carry</td>
<td>d) commuter train/ local train</td>
</tr>
<tr>
<td>5) conductor</td>
<td>e) trunk</td>
</tr>
<tr>
<td>6) to connect</td>
<td>f) rapid/ quick/ swift</td>
</tr>
<tr>
<td>7) convenient (convenience)</td>
<td>g) direct train</td>
</tr>
<tr>
<td>8) dining car</td>
<td>h) to offer/ to suggest</td>
</tr>
<tr>
<td>9) fast</td>
<td>i) to board a train/ to take a train</td>
</tr>
<tr>
<td>10) to get to</td>
<td>j) to reach</td>
</tr>
<tr>
<td>11) to get on the train</td>
<td>k) rush hour</td>
</tr>
<tr>
<td>12) information bureau</td>
<td>l) restaurant car</td>
</tr>
<tr>
<td>13) long distance train</td>
<td>m) sleeper train</td>
</tr>
<tr>
<td>14) baggage</td>
<td>n) ticket-office</td>
</tr>
<tr>
<td>15) peak hour</td>
<td>o) to buy a ticket beforehand/ in advance</td>
</tr>
<tr>
<td>16) to propose</td>
<td>p) enquiry office</td>
</tr>
<tr>
<td>17) railway</td>
<td>q) railroad</td>
</tr>
<tr>
<td>18) return ticket</td>
<td>r) attendant</td>
</tr>
<tr>
<td>19) single ticket</td>
<td>s) one-way ticket</td>
</tr>
<tr>
<td>20) suburban train</td>
<td>t) to transport</td>
</tr>
<tr>
<td>21) suitcase</td>
<td>u) round-trip ticket</td>
</tr>
<tr>
<td>22) through train</td>
<td>v) luggage</td>
</tr>
</tbody>
</table>
Ex.4. Match the words in the left column with their translation on the right.

| 1) to be (over)crowded | a) быть переполненным |
| 2) the train is due to arrive | b) взять багаж из камеры хранения |
| 3) the train is due out | c) давать чаевые |
| 4) to book (to reserve) a ticket by phone | d) поезд должен отправиться |
| 5) to buy a ticket on the day of departure | e) поезд должен прибыть |
| 6) to catch a train | f) заказать билет по телефону |
| 7) to collect one’s luggage from the cloak room | g) застрять в пробке на дороге |
| 8) a day coach | h) камера хранения |
| 9) to get a snack | i) купи багаж |
| 10) to get stuck in a traffic jam | j) откидная полка |
| 11) to give a tip | k) общый вагон |
| 12) to give a lift | l) камера хранения |
| 13) a left-luggage office (a baggage room, a cloak room) | m) плацкартный вагон |
| 14) to leave one’s luggage in the left-luggage room | n) подвезти |
| 15) to miss a train | o) поезд повышенной комфорта |
| 16) an open-type car | p) положить вещи на полку |
| 17) to put things on the luggage rack | q) слегка перекусить |
| 18) a reclining berth | r) спальник вагон |
| 19) a sleeping car | s) спальные вагоны |
| 20) a high comfort train | t) успеть на поезд |

Translate the sentences given below from Russian into English

1) Существуют различные типы пассажирских вагонов: общие, плацкартные, спальные.
2) Ты можешь подвезти меня до вокзала? 3) Поезд должен отправиться через пять минут. 4) Вы можете слать свои вещи в камеру хранения. 5) Электричка была переполнена, поэтому нам пришлось ждать следующий поезд. 6) Мы заказали билеты по телефону за неделю до отъезда. 7) Вы не поможете положить вещи на полку? 8) Наш поезд должен прибыть через час, поэтому у нас есть время, чтобы перекусить. 9) Мы опоздали на последнюю электричку, потому что застряли в пробке на дороге. 10) Летом невозможно купить билет на этот поезд в день отправления. 11) В купе спального вагона есть две нижние полки и две верхние откидные полки. 12) Ты дал носильщику «на чай»? 13) Билетов в купейный вагон не было, поэтому нам пришлось ехать в плацкартном вагоне. 14) Это поезд повышенной комфортности, поэтому билеты такие дорогие.

Ex.4. One of the words in the following sentences should not be there. Find the odd word and replace it by a more suitable one. Be very attentive!

Model: The departure and arrival time of this train is very expensive for passengers. → The departure and arrival time of this train is very convenient for passengers.

1) If you want to miss the train you’d better take a taxi. 2) He left for St.Petersburg by the 8.30 train because he wanted to depart there early in the morning. 3) What platform will the berth for London depart from? 4) All the commuter trains are equipped with dining cars. 5) Moscow is a major transport junction where 15 railroads meet at 10 airports and over 300 long-distance and 2,000 suburban trains depart daily. 6) All the passengers were invited to see the train off and take
their seats. 7) We got off the train and asked the locomotive crew to carry our luggage to the bus stop. 8) Various discounts are offered for both single and one-way tickets. 9) The suitcase was so light that Robert had to change it from hand to hand all the time. 10) In the day coach there are nine four-berth compartments for passengers, a compartment for the conductors, two toilet rooms and two vestibules. 11) On the first railways there were no conductors and an engine-driver collected the passengers’ luggage himself. 12) Thanks to wide doors in Metro cars passengers can quickly get on and off the station. 13) The reason I didn’t buy the car was that I thought it was too comfortable. 14) If you buy a train ticket on the day of departure, you’ll have to pay some extra money. 15) Pocket-size dictionaries are heavy for traveling purposes.

Ex.5. Match the Russian word combinations with their translation into English.

<table>
<thead>
<tr>
<th>Russian</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) в час пик</td>
<td>a) a four- or five-car set</td>
</tr>
<tr>
<td>2) войти в книгу рекордов Гиннеса</td>
<td>b) at least</td>
</tr>
<tr>
<td>3) двухэтажный вагон</td>
<td>c) plush seats of an aircraft type</td>
</tr>
<tr>
<td>4) ехать на велосипеде</td>
<td>d) during the rush hours</td>
</tr>
<tr>
<td>5) железнодорожный справочник</td>
<td>e) shunting works</td>
</tr>
<tr>
<td>6) заказать обед в купе</td>
<td>f) to enter in the Guinness Book of Records</td>
</tr>
<tr>
<td>7) интенсивное движение</td>
<td>g) to carry goods by lorry</td>
</tr>
<tr>
<td>8) контактный провод</td>
<td>h) heavy traffic</td>
</tr>
<tr>
<td>9) маневровые работы</td>
<td>i) a double-deck coach</td>
</tr>
<tr>
<td>10) мягкие кресла самолётного типа</td>
<td>j) to ride a bike</td>
</tr>
<tr>
<td>11) перевозить грузы на грузовике</td>
<td>k) a contact wire</td>
</tr>
<tr>
<td>12) по крайней мере</td>
<td>l) a railway-guide</td>
</tr>
<tr>
<td>13) состав из 4-5 вагонов</td>
<td>m) to order dinner to the compartment</td>
</tr>
</tbody>
</table>

Translate the following sentences from English into Russian.

1) There is so heavy traffic on this street during the rush hours that it is faster to ride a bike. 2) In some trains of high comfort passengers can order dinner or supper directly to his compartment. 3) In Europe double-deck passenger coaches are used in four- or five-car sets on suburban lines where traffic is very heavy. 4) The trains of Denver’s commuter network transport one million passengers a day but demand is at least three times that number. 5) It is more convenient to carry these goods by lorry than by rail. 6) This train is equipped with plush comfortable seats of an aircraft type and the time of its departure is very convenient for passengers. 7) You will find all the necessary information about the train movement in the railway-guide. 8) The diesel locomotive is not connected to the contact wire, like the electric locomotive, so it is especially suitable for shunting works. 9) In April 1998 there was a 300 km traffic jam on the N4 motorway [the main road from London to Wales] at the end of the Easter holidays. 10) The high-speed train running between Hiroshima and Kokura was entered in the Guinness Book of Records for the highest average speed – 261.8 km/h.

Ex.6. Choose the correct word and translate the sentences.

1) Passengers are required to show [passports; driver’s licenses; tickets] to conductors. 2) There is a [poster; advertisement; paper; notice] on the wall saying “Private Property. No Parking.”

3) It is so [dangerous; convenient; expensive; interesting] to have your own motor car because you don’t have to rely on the public transport. 4) Railway carriages that serve as restaurants are called [luggage vans; dining cars; passenger coaches; open-type cars].

5) If you are going abroad it’s [convenient; suitable; necessary] to have an entrance visa. 6) Various [subjects; locomotive crews; services] are proposed for passengers in high-class trains such as interurban telephone calls, branch press, medicare sets, food and security.

7) If you walk to work you will save $5 a week on bus [fares; traffic jams; drivers].
8) We were late; changed; arrived; departed at the airport in time to register and weigh our luggage.

9) When her car broke down, she had to catch; take; transfer; miss a taxi.

10) For the passengers’ change; convenience; departure the compartments of a sleeping car are equipped with mirrored sliding doors, loudspeakers, collapsible tables, ceiling lamps and wall lamps.

11) In New York a passenger may go by Metro all day long for the same fare, if he only changes carriages; compartments; luggage; trains but does not go out of the station.

12) The first bus developed by Shillibear noticed; appeared; departed; disappeared in London in 1861.

Ex. 7. Fill in the blanks with the prepositions if necessary.

1) Nobody took notice of his late arrival. 2) We were waiting for the train arrival on the platform. 3) You can’t go to a ticket. 4) What is the fare from Washington to Montreal?

5) When we entered the car, we opened the window because it was very stuffy in the compartment. 6) I was lucky to get tickets to the fast train from Moscow. 7) My first impressions of England are connected with rain and fog. 8) Several passers-by stopped to look at the strange bicycle out of curiosity. 9) The fare on the London Underground depends on the distance you travel.

10) on the time-table, the train is due to arrive at 12.30. 11) She seems to be in a hurry. It’s inconvenient to speak to her now. 12) You need not leave the airport so early; I will give you a lift. 13) Passengers can buy tickets for the day of departure or reserve them forward to departure. 14) Two or more locos can be coupled together and operated with a single locomotive crew. 15) according to the USA the average speed of some lines reaches 90 miles (146 km) per hour. 16) There are waiting rooms of all railway stations where passengers may rest until it is time to board the train. 17) Don’t bother! I’ll pay for all fares. 18) I am looking forward to my holiday. 19) I looked for my passport everywhere but couldn’t find it. 20) In the United States traveling by long-distance trains is not so popular as in many other parts of the world. 21) I want three first-class tickets for the “Red Arrow” from London on Friday for a separate compartment. 22) Is there a dining car for this train?

23) Which platform does the train from Paris leave from? 24) There are 5 minutes left before the train departs for Manchester from Liverpool.

Ex. 8. Read the following sentences replacing the Russian words by their English equivalents. Be careful with Grammar.

1) In the USA some trains have special business купе for one person equipped with a toilet, a wash-basin, a откидная полка and arm-chairs; купе for two persons without удобства and large sleeping купе for the family. 2) The information about the номер платформы and times when trains прибывать and отправляться may be получать in the справочное бюро. 3) If you take носильщик to carry your багаж, it is appropriate to давать чаевые. 4) If you drive быстро, you добираться до the village in two hours. 5) When we заходить the compartment нижние полки had been already occupied by a woman with a child. She asked us to take верхние полки. 6) To добраться до New Orleans we will have to делать пересадку in Birmingham. 7) In Britain there are three types of trains: скорый intercity trains, поезда, идущие со всеми остановками and пригородные поезда. 8) One of the first things a foreigner замечать about the British railways is the platforms. They are almost on a level with the floor of the вагон. This makes it easier for passengers to заходить in вагон with their багаж. 9) Last year плата за проезд in поезде more than doubled because of inflation. 10) This train will proceed to its место назначения without any stops. 11) In the USA there is a special скидка for those passengers who buy билеты туда и обратно.
12) They got stuck in a пробка on the way to the airport. 13) Foreign tourists are provided by AMTRAK ["American Track" – the major passenger railroad company] with the railway билеты for 14, 21 and 60 days, which give them the right to ездить на любом поезде in any купе and делать пересадку in any place and at any time.

**Ex.9. Complete the text with suitable words.**

When I got to the railway __ I saw a really long queue at the ticket __. So I got my ___ from the ticket machine. Then I ran to the ___ and got ___ the train. The journey was fine. I managed to get some sandwiches and some tea from the ___ car. My train ___ in Edinburgh with a thirty-minute delay. The result was that I was ___ for the meeting and I didn’t ___ the train home. I had to spend the night at the railway hotel.

**GRAMMAR REVIEW**

(Modal verbs and their equivalents; Present, Past, Future Continuous Active and Passive)

**Ex.10. Read and translate the following sentences paying attention to the modal verbs must, can, may, need, should.**

1) Drivers of express and fast trains must have a rest after 3 hours of work. 2) You should not ride a motorbike without a helmet. 3) You need not hurry up; you may take a later suburban train. 4) What can you do while traveling by train? You can read a novel or do a crossword puzzle, you can just stare out of the window or talk to your fellow-traveler, you can sit back and listen to the clicking of the carriage over the rails. 5) The tickets should not be thrown away as inspectors may check them during the trip. 6) Passengers should not walk across the railway lines; there is a footbridge at the end of the platform. 7) If you are traveling by air, you mustn’t carry anything in your luggage that can be used as a weapon, such as a knife or a pair of scissors. 8) You need not go to the railway station to buy tickets because you can book them at the nearest travel agency. 9) The Trans-European expresses are equipped with interurban telephones through which the traveler can contact office or home. 10) In Metro when the passengers get on the escalator, they should stand on the right so that people who hurry can run by on the left. 11) He can’t leave the country until the police return his passport.

**Ex.11. Match the beginnings of the sentences with their endings.**

1) The cursor on the screen can be moved a) till it stops raining. 2) You must not cross the street b) what you can do today. 3) You should hurry up; c) he couldn’t start it. 4) Can you show me d) the speed of 60 kmh within the city limits. 5) You may take any of these instruments e) we can be late. 6) You need not copy this text; f) taxes to the government. 7) Something was wrong with the car; g) I’ll give you a Xerox of this page. 8) Never put off till tomorrow h) I’ll phone them. 9) Drivers should not surpass i) the way to the station? 10) You may wait in the office j) because I don’t need them now. 11) Everybody must pay k) when the red light is on. 12) You need not write this letter; l) with the help of the mouse.
Ex.12. Read and translate the following sentences paying attention to the equivalents of the modal verbs. If possible, replace equivalents by the appropriate modal verbs.

1) If you park in no-parking zone, the traffic police can tow away your car. You will not be able to pick it up until you pay a fine. 2) If you buy railway tickets in advance, you have to pay some extra money. 3) Passengers were not allowed to get off the carriage because the stop of the train lasted only three minutes. 4) Since the tape-recorder is still under guarantee, I will not have to pay for the repairs. 5) At the large terminal passengers are able to book hotel, transport, tickets for sporting and cultural events; to telephone or send mail to anywhere in the world; to hold a business meeting; to obtain information of interest; to buy goods they need and so on. 6) The staff is not allowed to use office telephones for private calls. 7) I will have to pay 50 rubles extra for my luggage because it is overweight. 8) Sixty extra police officers were to control the traffic outside the stadium. 9) If the weather is cloudy, passengers have to sit at the airport and wait for their plane for hours. 10) On weekdays cars are not allowed to enter the centre of the city. 11) In England the speed of the first cars was not to surpass four miles per hour. 12) This car is automatic, so you do not have to change gear all the time. 13) We were not able to repair the car ourselves and had to take it to the auto-service station. 14) Here all the workers are to wear protective clothing. 15) Do you have to change buses when you are going to work? 16) We were to leave for England on Saturday but because of the delay with our visas, we had to book tickets for Monday. 17) We are not able to wait for them any longer, we are to ring them up and find out what has happened.

Ex.13. TEST. Choose the correct variant.

1) Я смогу встретить тебя на вокзале.
   a) shall be allowed to  b) can  c) shall be able to  d) have to

2) Поезд должен был прибыть в 17 часов, но задержался из-за ремонта пути.
   The train _____ arrive at 5 p.m. but it detained because of track repair work.
   a) must  b) had to  c) was able to  d) was to

3) Тебе придётся делать пересадку в Москве, так как до Минска нет прямого поезда.
   You _____ change trains in Moscow because there is no direct train to Minsk.
   a) will have to  b) can  c) needn’t  d) will be able to

4) До 19 века люди могли свободно переезжать из одной страны в другую без паспорта.
   Until the 19th century people _____ travel freely between most countries without a passport.
   a) are allowed to  b) were to  c) were able to  d) should

5) Сейчас всем можно пользоваться новыми телефонами в холле, но за определённую плату.
   Now everybody _____ use these new telephones in the hall but for some fee.
   a) are to  b) need  c) are allowed to  d) could

6) Поезд не мог уйти со станции, так как линия была занята.
   The train _____ depart from the station, as the line was busy.
   a) couldn’t  b) is not allowed to  c) wasn’t to  d) were not able to

7) Тебе следует научиться водить машину.
   You _____ learn driving a car.
   a) needn’t  b) are to  c) will be allowed to  d) should

8) Завтра можешь не приходить.
   You _____ come tomorrow.
   a) mustn’t  b) are not allowed to  c) needn’t  d) were not able to

9) Им пришлось уехать вчера, так как на сегодняшний поезд билетов не было.
   They _____ leave yesterday because there were no tickets available for today’s train.
   a) were able to  b) had to  c) could  d) must
10) You give me a lift to the nearest Metro station?  
   a) should  b) need  c) can  d) could

The results of the test: If your score is 10 correct answers, you are doing just great; 8-9 stand for good knowledge; 6-7 mean you have some problems; if the number of your correct answers is less than 6, go and learn the rules.


1) The car in front of him stopped so suddenly that he was not able to brake and smashed into it.  
   a) The plane was to take off at 5 a.m. and in this hurry-scurry she left the ticket on the table.

2) I am to return my library books today but I have no spare time at all.  
   b) You should ring her up and apologize.

3) I haven’t paid my monthly rent yet. Friday is the last day I can do it, but I am to leave for Moscow today. Can you help me?  
   c) He can speak English rather fluently, but that time he was so embarrassed that he was not able to say a word.

4) I am afraid, I was rude to Kate yesterday.  
   d) You should record the film. Have you got a VCR?

5) I have got an urgent work and my computer doesn’t work.  
   e) I’m sorry but I was not able to start my car and had to go by tram.

6) I have to prepare for a test but there is a film on TV I’ve wanted to see so much.  
   f) You should phone Nick. He has got clever fingers. I am sure he will be able to help.

7) Why are you so late? You should be more punctual.  
   g) You are to return the books today or you will have to pay a fine.

8) Can he speak English? He was dumb as a fish the whole evening.  
   h) You needn’t worry. I shall be able to go to the bank tomorrow and pay it.

9) Why did she have to come back home?  
   i) I can’t believe it! He is such a careful driver.

10) Роберт должен уехать в Лондон сегодня вечером.  
    j) I can’t believe it! He is such a careful driver.

Ex. 15. Translate the following sentences from Russian into English paying attention to the modal verbs and such expressions as: It should (must, can) be said that... – Следует (необходимо, можно) сказать, что...
It should (must, can) be mentioned that... – Следует (необходимо, можно) упомянуть, что...
It should (must, can) be noted that... – Следует (необходимо, можно) отметить, что...
It should (must, can) be stressed that... – Следует (необходимо, можно) подчеркнуть, что...

1) Следует отметить, что людям в больших городах приходится тратить много денег на оплату проезда в общественном транспорте.  
2) Вам придётся поторопиться, если вы хотите успеть на поезд.  
3) Он не смог завести [to start] машину.  
4) Когда должен был прибыть поезд?  
5) Ему приходится ездить в командировки [to travel on business] каждый месяц.  
6) Тебе следует быть более внимательным.  
7) Он сможет быстро отремонтировать [to repair] компьютер.  
8) Нам пришлось взять такси.  
9) Он не смог принять участие в конференции.  
10) Роберт должен уехать в Лондон сегодня вечером.  
11) Ты сможешь проводить меня?  
12) Необходимо сказать, что если ты хочешь говорить по-английски, тебе придется много [hard] работать.  
13) Следует отметить, что любой инженер может дать тебе информацию по этому вопросу.  
14) Я надеюсь, они смогли купить билет на последний поезд.  
15) Ты можешь идти, я закончу работу сам.  
16) Мы должны были встретиться на станции в 6 часов вечера.  
17) Следует подчеркнуть, что она была вынуждена рассказать все полицейскому
Ex. 16. Test. Choose the right variant.
1) Passengers _____ come to the airport an hour before the take-off time.
   a) are allowed to  b) must  c) will not able to  d) needn’t
2) We usually go to the south by plane but tomorrow we _____ travel three by train as we didn’t
   make a reservation for the flight.
   a) shall be allowed to  b) needn’t  c) shall have to  d) should
3) You _____ phone me again, I never forget my promise.
   a) need not  b) must not  c) can not  d) are not allowed
4) I _____ take a bus because Martin gave me a lift.
   a) did not have to  b) am not able to  c) was allowed to  d) was to
5) When the new road is built, I _____ drive to work in under half an hour. Now I _____ spend
   much more time.
   a) are able to  b) shall be able to  c) shall be allowed to  d) could
   a) have to  b) should  c) needn’t  d) am allowed to
6) The pilot _____ land the plane on only one engine.
   a) needn’t  b) was able to  c) should  d) were allowed to
7) Airline passengers _____ use mobile telephones during the flight.
   a) are able to  b) are not allowed to  c) were to  d) needn’t
8) Stay here till she is free. I think you _____ wait long.
   a) need not  b) will not have to  c) are not allowed to  d) shouldn’t
9) According to the rules a football player _____ touch the ball with his hands.
   a) is able to  b) has to  c) must not  d) will be allowed to
10) Luckily I _____ find a taxi.
    a) have to  b) could  c) was to  d) shall not be allowed
11) You _____ shout, I am not deaf.
    a) need not  b) will not be able to  c) are not allowed to  d) can
12) The speed in cities _____ exceed 60 km per hour.
    a) shouldn’t  b) is to  c) need not  d) will be allowed to
13) It is a non-smoking carriage. You _____ smoke here.
    a) must not  b) should  c) need not  d) are allowed to
14) You _____ carry your driving license with you.
    a) should  b) are not allowed to  c) will not be able to  d) was to
15) You _____ answer the question if you don’t want to.
    a) have to  b) need not  c) may  d) will be able to

*The results of the test: If your score is 15-16 correct answers, you are doing just great; 11-14
stand for good knowledge; 7-10 mean you have some problems; if the number of your correct
answers is less than 7, go and learn the rules.

Ex. 17. Present Indefinite Active or Present Continuous Active? Put the verb in brackets into the
correct tense form.
1) Many foreign tourists [to travel] in our country at present. 2) A person with a good education
usually [to get] a better job. 3) The train is late because the workers [to repair] the track. 4) As a rule the
workers [to repair] the track in summer. 5) Look! Two aircrafts [to fly] in the dark sky. 6) This fast train
always [to arrive] on schedule. 7) This section of track [to need] reconstruction. 7) The problem of
ecology [to become] one of the most important problems for mankind now. 8) Englishmen very seldom [to talk] on the Underground. They [to prefer] to read newspapers. 9) My TV set [to work] better now because we have installed the external antenna. 10) I can’t talk to you because I [to hurry]. 11) The phone [to ring]. Can you answer it? 12) The arrow of compass always [to point] to the North. 13) Nowadays the railways in the USA [to transport] only 0.6 per cent of passengers. 14) … all these passengers [to wait] for the suburban train arrival? 15) … you often [to receive] letters from your former group-mates? 16) Please, don’t make much noise. The students [to write] a test. 17) … he usually [to buy] one-way or round trip tickets? 18) What berth … you [to prefer] to travel by? 19) Where is John? – He [to meet] his friends at the airport. 20) What platform …our train [to depart] from? 21) What … you [to look for]? – I [to look for] my umbrella. Look out of the window, it [to rain] cats and dogs.

Ex.18. Past Indefinite Active or Past Continuous Active? Put the verb in brackets into the correct tense form.

ON THE PLATFORM

The train [to stop] at a small station. A passenger [to look out] of the window and [to see] two women who [to sell] cakes. The man [to want] to buy a cake. The women [to stand] rather far from the carriage. The man [to call] a boy, who [to walk] on the platform near the carriage and [to ask] him: “How much does the cake cost?” “Three pence, sir,” – [to answer] the boy. The man [to give] him sixpence and [to say] to him: “Bring me a cake, and with the other three pence buy one for yourself.” Some minutes later the boy [to return]. He [to eat] the cake. He [to give] the man three pence change and [to say]: “There was only one cake, sir.”

Ex.19. Read and translate the following sentences. Pay particular attention to the tense form of the predicate and to the prepositions in bold type.

1) You [are being looked for]. Go home. 2) The speaker [was being listened to] very attentively and nobody noticed me. 3) She can’t dance when she [is being looked at]. 4) The new exhibition [is being talked about] a lot. 5) I was asked what [was being built] in that street. 6) He suddenly realized that he [was being laughed at]. 7) When she entered the classroom, the last students [were being examined] there. 8) He knew he [was being watched]. 9) The mail [is being looked through]. There may be something for you there too. 10) The examination papers [are being checked] at the moment. 11) When I came to Leningrad in 1957, the first underground line [was still being built]. 12) Are they ready with the parcel? – No, it [is still being packed]. 13) A new railway line [is being constructed] across the desert now.

Ex.20. Answer the following questions, using the Passive Voice and the word combinations in brackets.

<table>
<thead>
<tr>
<th>What was happening</th>
<th>when you got there?</th>
</tr>
</thead>
<tbody>
<tr>
<td>at the booking-office [to buy tickets; to sell tickets] on the platform [to carry things into the luggage-van] in sleeping car [to sweep the compartment; to fix the upper berth; to serve tea, coffee; to check the tickets] at the post-office [to fill in the forms; to send off parcels; to make out money orders] in the shop [to show fashionable dresses; to sell shoes and other things] in the office [to discuss an agreement; to translate articles; to prepare documents for the conference; to sign the contract]</td>
<td></td>
</tr>
</tbody>
</table>
Ex.21. Read and translate the following sentences. State the voice and tense form of the predicates.

1) The program of railway reforms is being implemented now in Russia. Under this program suburban and regional passenger services will be financed from local budgets. At the same time the government promised to fund inter-city passenger service. 2) The car was moving very fast and the traffic cop stopped it for speeding. 3) Newspaper correspondents arrived at the aviation plant when the new passenger airplane was being tested. 4) The trains that go to and from London are very crowded at the times when people are traveling to work, since about a million people work in London but live in its suburbs. 5) The business day was in high gear: the mail was being looked through, the documents were being typed, letters were being answered, and talks were being held. 6) The bridge, which is being built now, will be used for the movement of both road and railway traffic. 7) Automobiles were rushing in both directions and it was impossible to cross the street. 8) The train is being delayed because of track repair work. 9) The policeman stopped a man and asked: “Why are you crossing the street in the wrong place?” 10) As we were going along the track, we saw a group of workers who were discussing something.

Ex.22. Put the verbs in brackets into the required tense forms.

1) We [to arrive – Past Indefinite Active] at the railway station when the train [to approach – Past Continuous Active] the platform. 2) The overall control of the system [to do – Present Continuous Passive] by computers. 3) Can you tell me who [to sit – Present Continuous Active] next to you? 4) He [to drive – Past Continuous Active] home when he [to hear – Past Indefinite Active] the news on the radio. 5) A lot of people [to wait – Past Continuous Active] for the bus arrival at the stop. 6) At present 2,500 km of high-speed lines [to construct – Present Continuous Passive] in Europe and Asia. 7) You [to catch – Future Indefinite Active] the train, if you [to hurry – Present Indefinite Active] up. 8) Steel rails [to use – Past Indefinite Passive] in the USA for the first time in 1863. 9) The experiment [to be – Past Indefinite Active] very interesting, it [to watch – Past Continuous Passive] with great attention. 10) Competition between transport modes [to intensify – Present Continuous Active] now. 11) The guide [to speak – Present Indefinite Active] English, German and Spanish, but he [to speak – Future Continuous Active] Spanish this afternoon because most of the visitors [to be – Present Indefinite Active] from Spain.

Ex.23. TEST. Choose the correct variant of the predicate.

1) When I came to Baku in 1962, the first Metro line ____ there.
   a) was building  b) was built  c) was being built  d) will be built

2) The bridge ____ the island to the mainland.
   a) is joining  b) joins  c) is joined  d) was being joined

3) The movement of trains is restricted on that section of the line because it ____.
   a) is being repaired  b) will repair  c) was being repaired  d) repairs

4) Such materials as reinforced concrete [железобетон] and steel ____ widely for the construction of modern bridges.
   a) are used  b) were being used  c) will be used  d) use

5) In the compartment passengers usually ____ their suitcases into a special box under the lower berth.
   a) are put  b) are putting  c) put  d) will be put
6) The train ___ Moscow; let’s start packing.
   a) approaches  b) is approaching  c) will approach  d) was approaching
7) Evidently the car ___ at a high speed so at this steep turn the crash was inevitable.
   a) was going  b) went  c) is going  d) will go
8) Last year many valuable minerals ___ by geologists in the North.
   a) are discovered  b) were discovering  c) were discovered  d) discover
9) Look! Somebody ___ to open your car.
   a) will try  b) tries  c) is trying  d) is being tried
10) He ___ to buy a car but first he must learn to drive.
     a) want  b) wants  c) will want  d) wanted
11) When he came into the office the secretary ___ a crossword puzzle.
     a) is doing  b) was doing  c) did  d) was being done
12) At the end of May the students ___ for their examinations.
    a) will be preparing  b) prepares  c) are preparing  d) shall be prepared
13) In Spain first class train passengers ___ with free newspapers and at-seat meals.
    a) are provided  b) provide  c) are being provided  d) was being provided
14) A beautiful bridge ___ in our city. It will be finished next year.
    a) is being built  b) was built  c) is building  d) will built
15) Someone ___ you. Will you answer the phone?
    a) calls  b) called  c) is calling  d) will be calling

*The results of the test: If your score is 14-15 correct answers, you are doing just great; 11-13 stand for good knowledge; 8-10 mean you have some problems; if the number of your correct answers is less than 8, go and learn the rules.

Ex.24. Put questions to the underlined words.
1) The “Repin” train departs from St.Petersburg’s Finlandsky terminal. [What…?] 2) The cars may be parked here after 5 p.m. [When…?] 3) Long steel bars on which the trains run are called the [What…?] 4) The accident happened on the bridge. [Where…?] 5) Our train is standing at the platform № ready to leave. [What…?] 6) Express trains stop only at large stations on their way. [What…?] 7) We were going to the railway station along the railway track. [Who…? Where…?] 8) The plant will produce a new model of the car next year. [When…?] 9) Telegraph cables are usually laid under the ground. [Where…?] 10) The plane was flying so low that we could see the pilot. [What height…?] 11) There are discounts only for return tickets. [What…?] 12) No planes took off on that day because of low clouds. [Why…?] 13) In Britain people drive on the left-hand side. [What country…?] 14) Passengers should keep their tickets till the end of the trip. [How long…?] 15) Automobile companies are working now at the development of an electric super car. [What…?] 16) Fares are being collected by a driver himself. [Whom…?]

TEXT A.
Read and translate the text using a dictionary if necessary.

MISTAKEN IDENTITY
(after M. Twain)

Several years ago I arrived in New York, where I was to change trains and take a sleeper. There were crowds of people on the platform, and they were all trying to get into the long sleeper train, which was already crowded. I asked the young man in the booking office if I could have a sleeping-berth and he answered: “No”. I went off and asked another local official if I could have some poor
little corner somewhere in a sleeping car, but he interrupted me angrily saying: “No, you can’t, every corner is full. Now do not bother me any more” and he turned his back and walked off. I felt so hurt that I said to my companion: “If these people knew who I was, they…. ” But my companion stopped me there: “Don’t talk such nonsense,” he said, “if they knew who you were, do you think it would help you to get a vacant seat in a train which has no vacant seats in it?”

This did not improve my mood at all but then I noticed that the porter of a sleeping car was looking at me. I saw the expression of his face suddenly change. He whispered to the conductor, pointing to me and I realized I was being talked about. Then the conductor came forward, his face all politeness.

“Can I be of any service to you?” he asked. “Do you want a place in a sleeping car?”

“Yes,” I said. “I will be very grateful to you if you can give me a place, anything will do.”

“We have nothing left except the big family compartment,” the conductor continued, “with two berths and a couple of arm-chairs in it. It is entirely at your disposal. Here, Tom, take these suitcases aboard!”

Then he touched his hat and moved along. The porter made us comfortable in the compartment and then he said, with many bows and smiles:

“Is there anything you want, sir? Because you can have just anything you want.”

“Can I have some hot water?” I asked.

“Yes, sir, I’ll get it myself.”

“Good! Now this lamp is hung too high above the berth. Can I have a better lamp fixed just at the head of my bed below the luggage rack, so that I can read comfortably?”

“Yes, sir. The lamp you want is just being fixed in the next compartment. I will get it from there and fix it here. It will burn all night. Yes, sir, you can ask for anything you want, the whole railroad will be turned inside out to please you.” And he disappeared.

I smiled at my companion and said:

“Well, what do you say now? Didn’t their attitude change the moment they understood I was Mark Twain?” My companion did not answer. So I added: “Don’t you like the way you are being served? And all for the same fare.”

As I was saying this, the porter’s smiling face appeared in the door way and this speech followed:

“Oh, sir, I recognized you the minute I set my eyes on you.”

“Is that so, my boy?” I said, handing him a good tip. “Who am I?”

“Mr. McClellan, Mayor of New York,” he said and disappeared again.

Ex.25. Answer the following questions.
1) What was Mark Twain to do in New York? 2) What were people doing on the platform? 3) Who did Mark Twain speak to about getting a place in the train? 4) Why was Mark Twain hurt by the official’s answer? 5) What did Mark Twain notice then? 6) What did the conductor say to Mark Twain? 7) What kind of compartment did the conductor put at Mark Twain’s disposal? 8) What did the conductor tell Tom to do with the gentlemen’s suitcases? 9) What did Mark Twain say about the conductor’s and the porter’s attitude to them? 10) Did Mark Twain’s companion like the way they were being served? 11) Was the conductor’s attitude to Mark Twain the result of his respect to the writer?

Ex.26. Go back to text A and find English equivalents to the following Russian phrases.
1) много лет назад; 2) сесть в спальный вагон; 3) можно мне получить спальное место?; 4) не надоедайте мне больше; 5) и ушёл прочь; 6) не могу ли я чем-нибудь помочь вам?; 7) у нас ничего не осталось; 8) он устроил нас в купе; 9) вам нужно что-нибудь?; 10) не принесёте ли вы мне горячей воды?; 11) я возьму (лампу) оттуда; 12) вы можете попросить всё, что хотите; 13) а что вы теперь скажете?; 14) как только они узнали; 15) в дверях; 16) правда?
Ex.27. True or false? Correct the statements which do not correspond to the contents of text

A. 1) Several years ago Mark Twain arrived in Washington where he was to change buses. 2) At the railway station there were many people trying to get into the train. 3) Mark Twain bought the ticket in the booking office. 4) There were many vacant seats in the train. 5) When Mark Twain turned to the official at the railway station, the latter was very polite to him and said he was ready to do anything for the writer and his companion. 6) Mark Twain was very disappointed when nobody recognized him. 7) The conductor gave Mark Twain and his companion a poor little corner in a sleeper which was already overcrowded. 8) The conductor’s name was Tom. 9) There were four berths and two chairs in the compartment. 10) Mark Twain asked the porter to repair the berth. 11) The porter tried to please Mark Twain because he thought him to be Mayor of New York.

Ex.28. Complete the following sentences using words and phrases from the Vocabulary List. Try to think of as many variants as possible.

1) I consulted the railway-guide and found out that ___. 2) Passenger trains are very rarely late nowadays but ___. 4) If you did not book your ticket beforehand, you would have to ___. 5) I phoned the Information Bureau and found out that ___. 6) Where is the cloak-room, I wonder? I want to ___. 7) If you want to buy a ticket for your journey, you must ___. 8) We had to leave Moscow by a slow train because ___. 9) If you have much luggage you can ___. 10) They did not want to miss the train, that’s why ___. 11) The train was ready to leave, that’s why ___. 12) The train starts in twenty minutes, so if you are hungry you can ___. 13) We have so much luggage. The rack won’t really hold it. We shall have to ___. 3) He always buys season tickets because ___.

Ex.29. Answer the following questions.
1) How many railway stations are there in Samara (Moscow)? 2) Where can you buy a ticket for your journey? 3) What are waiting rooms for? 4) Who can help you with your luggage? 5) What carriages do you prefer to travel by? (sleeping car, open-type car or day coach). Give your reasons.
6) Where can a passenger have a snack? 7) What trains have dining cars? 8) Do you prefer to book your tickets beforehand or buy them just before your departure? 9) What is the left-luggage room for? 10) Do you usually travel light or with a lot of things? 11) Where can you buy a newspaper at the railway stations? 12) How do you like seeing your friends and relatives off? 13) Are there smoking and non-smoking carriages on our trains? 14) To whom does a passenger show his ticket before entering the carriage? 15) Do you like reading (talking, sleeping, etc.) on a train? 20) How do you like to travel: by air, by sea, by car or by rail? Explain your choice.

Ex.30. Make up sentences, saying what you have to do (or had to do) and why?

Model: to get up early → I had to get up early because I was afraid to miss the first train.
1) to stay in town all summer; 2) to go to the booking office at 7 a.m.; 3) to catch an early train; 4) to wait for a long time; 5) to pack my suitcase in a hurry; 6) to go to the railway station; 7) to see my friend off; 8) to talk about dull things; 9) to give a ring to the enquiry office; 10) to eat uneatable cereal.

Ex.31. Your friend tells you how he gets from Washington to New York. Choose suitable verbs from the box and fill in the blanks. Be careful with Grammar.

<table>
<thead>
<tr>
<th>to arrive</th>
<th>to depart</th>
<th>to catch</th>
<th>to miss</th>
<th>to cost</th>
<th>to board</th>
<th>to get</th>
<th>to be</th>
</tr>
</thead>
<tbody>
<tr>
<td>to go</td>
<td>to travel</td>
<td>to leave</td>
<td>to reach</td>
<td>to propose</td>
<td>to take</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
I usually ___ by train, because it’s only a bit slower than the plane and it’s more reliable. It ___ $100 return. The journey ___ about 4 hours. I usually ___ the 10.30 train, which ___ New York at 2 p.m. It’s comfortable and always ___ on time.

Now it’s your turn to tell your friend how you get or can get 1) from Samara to your native town; 2) from Samara to Moscow; 3) from Moscow to Vladivostok; 4) from Moscow to London; 5) from Paris to London; 6) from Samara to Washington. Use your imagination.

Ex.32. Read the following dialogues in pairs replacing Russian words by their English equivalents.

Dialogue 1
Passenger – I want билет в Springfield.
Clerk – Which Springfield? There are разных Springfields…
Passenger – I suppose Springfield, Massachusetts, is the cheapest. It is the closest to here anyway. Fortunately, it is also the Springfield I want to go to. What is плата за проезд, please?
Clerk – Six dollars and eighty cents for билет “туда”, eleven dollars and fifty cents for билет “туда и обратно”.
Passenger – Когда отправляется ближайший поезд?
Clerk – Есть поезд в 4.10. There is also another at 7.20 сегодня вечером.
Passenger – Are they both прямые поезда?
Clerk – The 4.10 is скорый поезд and делает только одну остановку in New Heaven. It прибывает в Springfield at 9.30. The second is поезд, который идёт со всеми остановками and takes about полтора часа longer.
Passenger – Is there вагон ресторан on both trains?
Clerk – There is вагон ресторан on the 4.10. The 7.20 has only a snack bar. They as usual serve sandwiches and coffee, drinks, etc.
Passenger – …

What train would you choose if you were the passenger? Complete the dialogue.

Dialogue 2
Passenger – Is there поезд дальнего следования going directly to Bangor, Maine?
Clerk – Yes, there is one train. It отправляется at 1.20 in the morning. Of course you can сесть в поезд any time after eleven o’clock at night and go to bed.
Passenger – I suppose it is необходимо купить билет заранее.
Clerk – It is customary to buy a ticket at least a day in advance. Sometimes, over holidays or busy seasons, even a week in advance is safer. Плата за проезд to Bangor amounts to about twenty dollars. Нижняя полка to Bangor will cost you about two dollars more than верхняя полка.
Passenger – Is there any other difference?
Clerk – Well, in the morning, if you are on нижняя полка you get up, and if you are on верхняя полка you get down. That is one of my little jokes.
Passenger – Большое спасибо. You have been very helpful.
Clerk – Не за что. That is what we are here for.

Dialogue 3
Clerk – Добрый день, чем я могу Вам помочь?
Passenger – Good morning, I’d like билет на скорый поезд до Glasgow.
Clerk – Which train?
Passenger – The one leaving в пять тридцать.
Clerk – Билет “туда” или “туда и обратно”?
Passenger – Только туда, пожалуйста.
Clerk – Would you like первый or второй класс?
Passenger – Второй класс, пожалуйста. Is it possible to have место около окна?
Clerk – Конечно.
Passenger – Это прямой поезд?
Clerk – Да.
Passenger – Когда он прибывает в Глазго?
Clerk – Он прибывает без пятнадцати двенадцать.
Passenger – В этом поезде есть вагон-ресторан?
Clerk – Да, есть.
Passenger – And could you tell me which platform отъезжает этот поезд?
Clerk – Platform six. You have everything written on the ticket. Look: прибытие и отправление time, вагон and seat number, the date… Everything is written here.
Passenger – Thank you very much. Сколько стоит билет?
Clerk – It is ₤10.40.
Passenger – Here you are.
Clerk – Thank you.

Dialogue 4

[Ted and Ben, who are about 14, have been allowed by their parents to поехать за город на поезде for a day. They make themselves comfortable in an empty купе. Suddenly Ben sees Ted’s билет lying on the seat. He moves it up, берёт его и кладёт в карман. He says nothing to Ted.]
Ted – Где мой билет? I had it a minute ago.
Ben – You’d better поискать его. Контролёр will be here через минуту. If you can’t показать him your ticket, he’ll make you платить double.
Ted – But у меня нет enough money. Что же мне делать?
[Ted gets up, turns out his pockets, ищет билет на полу, but all this doesn’t help.]
Ben – У меня есть хорошая идея.
Ted – What is it?
Ben – You get under the seat till he has gone. I’ll sit over you and hide you with my legs. Он не заметит тебя. As soon as he has gone, you can come out.
Ted – He’ll be here any minute. Мне залазить под кресло right now?
Ben – Yes, you’d better. And don’t move while он в вагоне.
[Ted gets under the seat. Контролёр comes along. Ben hands him two tickets.]
Insp. – Чей это билет?
Ben – Oh, that’s my friend’s.
Insp. – Where has he gone?
Ben – Nowhere. Он под креслом.
Insp. – И что он там делает?
Ben – Oh, ему нравится путешествовать под креслом, aren’t you, Ted?
Ted [getting out from under the seat] – All right! I’ll pay you back for this. Just you подожди.

Change dialogue 4 to a story, using the following words and expressions.

to buy tickets for the commuter train; to get on the train; to make oneself comfortable; to play a trick; to put the ticket in the pocket; to look for the ticket; to have a good idea; to get under the seat; to enter the compartment; to hand the inspector two tickets; to be fond of traveling under the seat; to pay Ben back for this trick.

TEXT B.
The man who took notice of all the notices

My Uncle Tom worked on the railway. It wasn't a big station. Only about two trains a day stopped there, and Tom was a station master, a chief porter, and a signal operator—all in one; in fact, Tom did any work that came along, and there wasn't a happier man in the whole England.

The chief cleaner (Tom) cleaned the waiting room of the station every day; the chief ticket collector (Tom) sold and collected the tickets—sometimes there were as many as four tickets a day—and the chief clerk (Tom) counted the money every evening.

Tom ran the station very well. He was very strict about the rules. He knew what was allowed a passenger to do and what wasn't allowed; where a passenger was permitted to smoke and where smoking was forbidden.

He was there for fifty years and then he had to retire. The representative of the Railway Company thanked Tom and gave him a small check as a present. Tom was very pleased but he said: “I don't need money, but can I have, instead, something that will remind me of the happy days I have spent here? Could the company let me have a part of an old railway carriage, just one compartment? It doesn't matter how old and broken it is. I want to put it into my back garden and every day I could go and sit in it.”

About a week later a compartment was sent to him. Tom put it into his back garden, cleaned it, painted it and polished it.

One day, about a year after Tom retired we decided to visit him. It was a bad day for a visit, it was raining hard. We knocked but there was no answer. We went into the garden, sure enough, he was there, but he wasn't sitting in the carriage, he was outside, on the step of the carriage, smoking a pipe.

“Hello, Tom,”—I said, “why are you sitting there, why don't you go inside the carriage out of the rain?” “Can't you see?”—said Tom, “the carriage is a non-smoker!”

Ex. 33. Go back to the text and find the English equivalents to the following words and phrases.
начальник станции; сигнальщик; контролер; на самом деле; зал ожидания; управлять (руководить) станцией; строгий; запрещать; позволять; уйти на пенсию; представитель компании; напоминать о счастливых днях; не имеет значения; вагон для некурящих.

Read and translate the text using a dictionary if necessary.

How to avoid traveling (after G. Mikes)

Travel is the name of a modern disease, which started in the mid-fifties and is still spreading. The patient grows restless in the early spring and starts rushing about from one travel agency to another, collecting useless information about the places he doesn't intend to visit. Then, he or usually she, will do a round of shops* and spend much more than he or she can afford. Finally in August, the patient will board a plane, a train, a bus or a car and go to foreign countries along with thousands of his fellow-countrymen, not because he is interested in or attracted by some place, nor because he can afford to go but simply because he cannot afford not to. The result is that in the summer months (and in the last few years during the winter season too) everybody is on the move**.

What is the aim of traveling? Each nationality has its own different one. The Americans want to take photographs of themselves in different places. The idea is simply to collect documentary proof that they have been there. The German travels to check up on his guidebooks. Why do the English travel? First, because their neighbor does. Secondly, they were taught that travel broadens the mind***. But mainly they travel to avoid foreigners. I know many English people who travel in
groups, stay in hotels where even the staff is English, eat roast beef and Yorkshire pudding on
Sunday and steak-and-kidney pies on weekdays, all over Europe. The main aim of the Englishman
abroad is to meet people, I mean, of course, nice English people from the next door or from the next
street. It is possible, however, that the mania for traveling is coming to an end. A Roman friend
of mine told me: “I no longer travel at all. I stay here because I want to meet my friends from all over
the world.” “What exactly do you mean?” I asked. “It is simple,” he explained. “Whenever I go to
London my friend Smith is in Tokyo and Brown is in Sicily. If I go to Paris, my friends are either in
London or in Spain. But if I stay in Rome all my friends, I’m sure, will turn up at one time or
another****. The world means people to me. I stay here because I want to see the world. Besides,
staying at home broadens the mind.”

Notes:
* to do a round of shops – идти от одного магазина к другому, покупая что-либо
** to be on the move – путешествовать
*** to broaden the mind – расширять кругозор
**** at one time or another – раньше или позже

Ex. 34. True or false? Correct the statements which do not correspond to the contents of text C.
1) Travel is the name of a modern disease, which started in the mid-forties. 2) People begin
   thinking about traveling in the early spring. 3) Preparing for the trip, he or she spends more than he
   or she can afford. 4) In November people board planes, trains, buses, subway or cars and go to
   foreign countries. 5) In summer everybody stay at home. 6) Each nationality has its own aim of
   traveling. 7) The Americans travel because they want to check up on their guidebooks. 8) The
   English travel abroad to avoid foreigners and to meet nice English people. 9) The German travels all
   over Europe to eat roast beef and Yorkshire pudding. 10) Staying at home broadens the mind.

TEXT D

Have you ever read any English books in the original? The text given below is taken from the
famous A. Christie’s story. Try to translate it, consulting a dictionary as little as possible.

4.50 FROM Paddington
(after A. Christie)

Mrs. McGillicuddy was going along the platform, trying to catch up with the porter who was
carrying her suitcase. Mrs. McGillicuddy was burdened with a large number of parcels; the result
of a day’s Christmas shopping. Platform No 1 was rather crowded; people were rushing in several
directions at once, to and from undergrounds, left-luggage offices, tea-rooms, enquiry offices,
indicator boards, to the outside world.

Mrs. McGillicuddy and her parcels were buffeted to and fro, but she arrived at last at the
entrance to Platform No 3 and deposited one parcel at her feet while she was looking her bag for
the ticket that would enable her to pass stern uniformed guardian at the gate.

At that moment, a loud voice burst into speech over her head. “The train standing at Platform
3” the voice told her, “is the 4.50 for Brackhampton, Milchester and Roxeter. Passengers for
Brackhampton travel at the rear of the train. Passengers for Carvil change at Roxeter”. The voice
shut itself off with a click and then reopened conversation by announcing the arrival at Platform
No. 9 of the 4.00 from Birmingham.

Mrs. McGillicuddy found her ticket and presented it. The man clipped it, murmured: “On the
right-rear portion.” Mrs. McGillicuddy found her porter outside the door of a third-class carriage.
“Here you are, lady.” – “I’m traveling first-class,” said Mrs. McGillicuddy. “You didn’t say so,”
grumbled the porter. He took the suitcase and marched with it to the adjoining coach. The 4.50
was almost empty, as the first-class passengers preferred either the faster morning express or the
6.40 with a dining car. Mrs. McGillicuddy handed the porter his tip, which he received with
disappointment, considering it more suitable to third-class than to first-class travel. But Mrs. McGillicuddy, though prepared to spend money on comfortable travel after a night journey from the North and a day’s feverish shopping, was at no time an extravagant tipper.

She made herself comfortable on the plush cushions with a sigh and opened a magazine. Five minutes later, whistles blew, and the train started. Three minutes later she was asleep. She slept for forty minutes and awoke refreshed. It was quite dark now. “Serving last tea now,” said an attendant, opening the corridor door. But Mrs. McGillicuddy had already had tea at a large department store. She looked up at the rack where her various parcels reposed, with a pleased expression. Her satisfied gaze returned to the window; a train traveling in the opposite direction rushed by with a screech, making the windows rattle. The train passed through a station. Then it began suddenly to slow down, probably in obedience to a signal. For some minutes it crawled along, stopped; and then began to move forward again, gathering speed. For a time two trains ran parallel, now one gaining a little, now the other. Mrs. McGillicuddy looked from her window through the windows of the parallel carriages. Most of the blinds were down, but occasionally the passengers of the carriages were visible. The other train was not very full and there were many empty coaches. Suddenly in one of the compartments of the passing train Mrs. McGillicuddy saw a man. His hands were round the throat of a woman who faced him; he was slowly, remorselessly strangling her.

Ex. 35. Answer the following questions.

1) Where was Mrs. McGillicuddy hurrying to? 2) Did she have a lot of luggage? Why? 3) What were people doing at the railway station? 4) What did the voice announce? 5) Was Mrs. McGillicuddy’s porter satisfied with the tip? 6) Why was the train almost empty? 7) Was Mrs. McGillicuddy comfortable in her compartment? Prove it. 8) What did she suddenly see, looking out of the window of her compartment?

Ex. 36. Translate the following sentences from Russian into English.


LESSON THREE
FROM THE HISTORY OF RAILWAY TRANSPORT

Ex.1. Practice the reading.

- preparation, election, protection, inspection, injection, destination, computerization, condition, reduction, demagnetization, contamination, introduction, contribution, attention, stationary, acceleration, dictionary, detection, application, gravitation, deviation, ignition, competition, mention, motion, civilization, conventional, constructional;

- session, conversion, compression, permission, confession, dimension, suspension, depression, expansion, transmission, extension, professional, collision, precision, decision, confusion, fusion, corrosion, division, explosion, adhesion, abrasion, occasional.

- ar, er, or, ur, ir

- discard, cargo, artery, compartment, depart, charter, disembark, barge, enlarge, apart, arc, charge, hardly, parking, starter, article, alarm, parcel;

- BUT: warm, warn, award, warrant;

- internal, terminal, transfer, alert, berth, concern, serve, service, emerge, personal, commercial, convert, permanent, defer, advertisement, converge, per, alternative, certain, refer, mercury, reserve;

- perform, formula, reinforce, ordinary, extraordinary, ore, accord, enormous, retort, cordon, absorb, border, corporation, disorder, forward, incorporate, record; normally, transform, support;

- BUT: worth, word, worm, world;

- urgent, surface, turbine, furnace, occur, disturb, surname, interurban, suburban, curve, turn, return, further, purpose, survey, turbish, burst, spur, absurd, burden, cursor, curb;

- firm, circuit, birth, circular, swirl, confirm, first, third, birch, shirk, smirk, affirm.

<table>
<thead>
<tr>
<th>Words and word combinations to be remembered</th>
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<tbody>
<tr>
<td>1) to consider – считать, подлагать; учитывать, принимать во внимание</td>
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<td>2) to cover – проходить, преодолевать (расстояние); охватывать; покрывать</td>
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<td>3) to delay – задерживать(ся), опаздывать</td>
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<td>4) to design – проектировать, конструировать</td>
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<tr>
<td>design – проект, конструкция</td>
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<td>5) double-track line – двухпутная линия</td>
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<td>6) to draw (drew, drawn) – тянуть, тащить</td>
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<td>7) to drive (drove, driven) – ехать, везти, вести; приводить в движение</td>
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<td>8) engine – двигатель; локомотив</td>
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<td>9) freight – груз(а)</td>
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<td>10) to fuel – заправлять топливом</td>
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<td>fuel – топливо</td>
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<td>11) gauge – ширина колеи, колея</td>
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<td>narrow-gauge railway – узкоколейная железная дорога</td>
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<tr>
<td>broad-gauge railway – ширококолейная железная дорога</td>
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<td>12) to invent – изобретать</td>
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<td>invention – изобретение</td>
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<td>inventor – изобретатель</td>
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<td>13) to invite – приглашать</td>
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<td>invitation – приглашение</td>
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<td>14) main – основной, главный</td>
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<tr>
<td>mainline – магистраль</td>
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<td>mainly – в основном</td>
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<td>15) to mean (meant, meant) – значить, означать; иметь в виду</td>
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means of transport – средство транспорта
means of communication – средство связи
16) to move – двигаться
movement – движение
17) to power – приводить в движение
power – сила, мощность, энергия
powerful – мощный
motive power – движущая сила
horse-powered – приводимый в движение лошадьми
18) to produce – производить, создавать
production – производство, изготовление
19) railway track – железнодорожный путь (полотно)
20) to replace – заменять
replacement – замена
21) route – линия, маршрут
en route – в пути
22) sleeper – шпала; спальный вагон
23) steam – пар
24) vehicle – транспортное средство
25) wheel – колесо

Mind the prepositions
1) to replace smth. by (with) smth. 5) at a speed of 9) due to
2) to speak to smth. about (of) smth. 6) by means of 10) owing to
3) to prevent smth./ smth. from doing smth. 7) in order to 11) thanks to
4) to invite smth. to 8) because of

Ex.2. Describe the relationship between each of the following words (antonyms, synonyms, neither).

1) to invent/ to invite 11) freight/ cargo/ load/ goods
2) narrow/ broad 12) means of transport/ mode of transport
3) to produce/ to manufacture 13) fast/ slow
4) heavy/ light 14) to move/ to run/ to travel
5) to operate/ to drive/ to propel/ to power 15) motive power/ tractive power
6) sleeper/ crosstie/ tie 16) to replace/ to substitute/ to change
7) movement/ traffic 17) to invent/ to devise
8) to draw/ to pull/ to haul 18) mainline/ trunk line
9) to use/ to apply 19) to pull/ to push
10) means of transport/ by means of 20) to delay/ to detain

Ex.3. Match the words in the left column with their translation on the right.

| 1) cast iron | a) бетонная шпала |
| 2) concrete sleeper | b) вагонеточные пути |
| 3) driving wheel | c) ведущее колесо |
| 4) to gain experience | d) шпунт |
| 5) internal combustion engine | e) двигатель внутреннего сгорания |
| 6) jet engine | f) деревянная шпала |
| 7) manual labor | g) изыскательская работа (партия) |
Translate the sentences given below from Russian into English.

1) Машины заменили тяжёлый ручной труд строителей железных дорог. 2) Срок службы бетонных шпал – 40-50 лет. 3) Первые вагонеточные пути использовались на шахтах [a mine] для перевозки угля [coal]. 4) В России первое самоходное транспортное средство было изобретено И.П. Кулибиным в 18 веке. 5) Реактивные двигатели работают на керосине [kerosene]. 6) Первый паровоз отца и сына Черепановых имел четыре колеса, два из которых были ведущими. 7) Деревянные рельсы были недолговечными [short-lived], поэтому их сначала заменили чугунными, а затем стальными. 8) Существуют различные типы двигателей внутреннего сгорания: такие как дизельный, бензиновый, электрический, реактивный. 9) С изобретением парового двигателя начался новый этап [stage] в развитии транспорта. 10) Люди накопили большой опыт в сооружении мостов и виадуков.

Ex.4. Translate the words given in the box into English.

| бетонный | двигатель | замена | из-за | изобретение |
| конструкция | мощный | пар | шпала |
| проходить | срок службы | считать | тянуть |
| транспортное средство | энергия |

Fill in the blanks with the appropriate words.

1) Modern locomotives can ___ the trains of 6,000 tons and heavier. 2) ___ of the old engine will take two hours. 3) In the USA the use of electric ___ in transportation began in 1887. 4) Rudolf Diesel designed ___ which was one of the greatest ___ of the 20th century. 5) In Britain wooden sleepers last about twenty years, whereas the ___ of a wooden sleeper in India is fifteen years. 6) At 100° C water is converted into ___. 7) They had to ___ rather a long distance on foot. 8) This ___ machine is operated by one person. 9) Many old ___ can be seen in the museum of transport. 10) At first coal gas was used as ___ for diesel engines. 11) Steel ___ first appeared in Europe in 1868, mainly ___ the shortage of durable wood in some countries. 12) We couldn’t start the ___ of the car at –30°C. 13) The invention of ___ started the first industrial revolution. 14) The engineers ___ that the main drawback of the new ___ is its high cost. 15) ___ sleepers last long because this material is not subjected to corrosion.

Ex.5. Choose the correct word or words and translate the sentences.

1) The driver of the [steam locomotive; vehicle; electric car] may be fined by the police officer if he violates the traffic rules or drives under the influence of alcohol.

2) George M. Pullman not only [required; invented; replace] the sleeping car, he also was the first to design and build the [restaurant car; wheel; steam engine].

3) Aircrafts are not able to [move; carry; pull] a lot in weight and are used mainly for transporting mail, people and valuable [goods; passengers; freight]. [Heavy; light; narrow] loads are usually transported by freight trains.

4) Your car is in good condition but you have to [improve; use; replace] worn-out tires.
5) Electric train can be driven; propelled; powered either by electric locomotive or by motor cars.
6) The invention of the fuel; double-track railway; steam engine aroused great interest; it was much spoken and written about.
7) The first electric; jet; steam locomotives were not strong and they often broke down.
8) An atomic icebreaker needs only a few grams of coal; diesel fuel; atomic fuel a week, whereas an ordinary icebreaker needs more than 100 tons of fuel a day.
9) The underground is a very convenient means of transport; form of transport; vehicle but it does not suit me because I live a long way from the station.
10) There were many passengers at the airport on New Year’s Eve as many flights were delayed; required; prevented because of the snowstorm.
11) New plastic and synthetic materials are widely applied; used; substituted for the interior and exterior finishes of carriages.
12) As the railways now have a standard gauge; narrow gauge; broad gauge, it is possible to travel over several lines without changing bogies.
Ex.8. Fill in the blanks with the appropriate compound prepositions. Consult the box.

1) __ the information received by us the ship will arrive on the 10th of April. 2) I go by bus __ the State Library and then walk a few blocks to my office. 3) __ his help we finished our work early. 4) Taking off the plane was delayed __ a heavy rain. 5) The dispatcher can communicate with the loco driver over long distances __ a radiotelephone. 6) The new equipment was used __ test the vibration of the engine. 7) __ the trouble in the engine there appeared another in the transmission. 8) The work is going on __ the schedule. 9) He was late __ heavy traffic. 10) The Metro station is __ my house. 11) __ the new project, the railway will be extended __ the seaport. 12) __ win in the competition with air transport, the efficiency and quality of freight and passenger services must be improved. 13) The train departure had not been delayed __ the accident. 14) __ this device we can carry out more operations in shorter time. 15) __ the problem with the car, we enjoyed the journey very much. 16) The engine didn't operate well __ bad fuel. 17) __ to sail the boat was also supplied with a motor. 18) No traffic was allowed __ the accident. 19) In big ports ships are loaded and unloaded __ powerful cranes. 20) __ the traffic lights ahead, the car continued moving at the same speed. 21) It is necessary to build good roads __ promote the rapid development of this region. 22) D.I. Mendeleyev arranged chemical elements __ their atomic weights.

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<td>due to</td>
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Ex.9. Fill in the blanks with the prepositions if necessary. Consult the box.

1) The management of the Oktyabrskaya Railway pays much attention __ the improvement of passengers’ service __ the terminals. 2) Steam locomotives were not able to haul very heavy trains __ a high speed. 3) There were no means of direct communication __ the telephone was invented. 4) He was invited __ the conference but he didn't accept the invitation. 5) The fog prevented the planes __ taking off. 6) The first passenger cars were lighted __ candles; later candles were replaced __ oil and gas lamps. 7) This new train develops a very high speed since it is equipped __ powerful engines. 8) Steel which is used __ the production __ rails must be of high quality. 9) The incandescent lamp was invented __ Thomas Edison. 10) The switch [стрелочный перевод] is the mechanism which is used to move the trains __ one track __ another. 11) There are a number __ questions I'd like to speak __ you ___. 12) Their decision will depend __ how interesting your offer is. 13) The railway station is an hour’s drive __ my house. 14) The traffic in the city center was delayed __ the demonstration.

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**GRAMMAR REVIEW**

(Degrees of comparison of adjectives and adverbs; Present, Past, Future Perfect Active and Passive)

Ex.10. Form the degrees of comparison of the following adjectives and adverbs:

- attentive, backward, bad, brittle, careful, cheap, clever, close, comfortable, considerable,
- convenient, dangerous, difficult, dirty, dry, early, easy, expensive, famous, fast, good, happy, hard,
- heavy, high, hot, important, late, lazy, little, loud, lucky, modern, narrow, necessary, powerful, quick,
- rapid, reliable, sad, safe, simple, slow, small, soft, swift, suitable, useful, wide.

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Ex.11. Compare the objects according to the model.

Model: the new bridge – the old bridge (narrow). → The old bridge was much narrower than the new bridge.


Ex.12. Read and translate the sentences, paying attention to adjectives and adverbs.

1) In the USA people prefer to use motor transport or aircrafts because traveling by train is slower than by plane and tickets are sometimes more expensive. 2) The first rails were made of cast iron but when traffic became heavier it was found that cast iron was too brittle and wore too quickly. 3) Thanks to the invention of the radio it is possible to communicate with the remotest parts of the world. 4) In the Grand Prix motor racing just a few seconds sometimes separate the fastest car from the slowest car in a race. 5) The most outstanding miniature railway in the world is the track which encircles the Disney Park. 6) In Australia the traffic is heavier during the winter months, when many tourists travel in passenger trains. 7) Statistically it is safer to travel by air than to drive a car. 8) Heathrow, Britain’s largest international airport, is linked with the capital by the Underground railway. 9) It is much more convenient to travel by express train because it doesn’t stop at small stations, and it takes you less time to get to your destination. 10) One of the longest continuous underground railway tunnels in the world is the 17.5 mile tunnel on the Northern line of the London Underground. 11) Petrol engines are lighter and smaller than diesel engines; they are cheaper, less noisy and go faster that is why they are used in cars and motorbikes. On the other hand diesel engines use less fuel; last longer than petrol engines, this is why larger vehicles such as trucks and trains use them. They are also safer than petrol engines, because there is less danger of fire.

Ex.13. Read the following sentences, using the adjectives given in brackets in the required degree of comparison.

1) Radio and television are [great] achievements of the 20th century. 2) The problem was [serious] than we expected. 3) The diamond is [hard] mineral in the world. 4) Railways cause [little] air contamination than other modes of transport. 5) Both roads lead to the city center, but the left-hand one is a bit [short] and [direct] than the right-hand road. 6) Although there are now [fast] and [modern] means of transport, railways still remain [safe] and [popular] form of transport. 7) The railway line that has no long tunnels and bridges is [cheap] line. 8) The railway construction became [easy] and [quick] after the invention of special track-laying machines and other equipment. 9) Passengers traveling from Moscow to Vladivostok have to move the hands of their watches seven times because the Trans-Siberian Mainline, [long] railway on our planet, crosses seven time zones. 10) The bridge crosses the river at its [narrow] point. 11) When air is warmed it expands and becomes [light]. 12) He gained [large] prize in a lottery. 13) New models of computer processors have [great] speed and are [reliable] than the old ones. 14) [Low] temperature on the Earth was recorded on the North Pole. 15) I wish I lived [near] my work because it takes me much time to get there

Ex.14. Translate the following sentences from Russian into English.

1) Железная дорога Москва-Санкт-Петербург – самая старая и самая знаменитая магистраль в нашей стране. 2) Щебёнка [broken stone] – самый подходящий материал для балласта. 3) КПД [efficiency] электровозов в четыре раза выше, чем КПД паровозов. 4) В
мире что почтовое
15) …you ever the nearest way to the station yesterday and I couldn’t fly anywhere. 14) Mail just to deliver
Монблан 12) We platform and city for three months. 9) Are you still studying or … you already
to find 13) All my money to steal on the way to the airport yesterday and I couldn’t fly anywhere. 14) Mail just to deliver by the helicopter
15) …you ever to visit other countries? – Yes, I to be to France and Spain. 16) Today I to invite to give a talk on the radio. 17) Don’t worry! The equipment already to pack. 18) We first to come to this town more than twenty years ago. Everything to change in the town since that time. 19) The nearest way to the station to show to them an hour ago, but they not/ to arrive yet. 20) She to ask the clerk if all the trains arrive on time here.

Ex.15. Past Indefinite or Present Perfect? Put the verbs into the correct tense forms.
1) I to lose my passport last month, and nobody to find it yet. 2) Two years to pass since he left. 3) They to move to Washington several years ago. 4) The engineer to show his foreign friends the bridge in the building of which he to take part in 1980. 5) He not/ to decide yet what to do. 6) We to know each other since childhood. 7) The journalists to ask me many questions at the yesterday’s interview. 8) When … you to arrive in Prague? – I to arrive here last September. So I to live in this city for three months. 9) Are you still studying or … you already to find a job? 10) I to rush to the platform and to get on the train. 11) The coffee I to buy last week is very good but very expensive. 12) We to learn a lot of words and grammatical rules lately. 13) All my money to steal on the way to the airport yesterday and I couldn’t fly anywhere. 14) Mail just to deliver by the helicopter 15) …you ever to visit other countries? – Yes, I to be to France and Spain. 16) Today I to invite to give a talk on the radio. 17) Don’t worry! The equipment already to pack. 18) We first to come to this town more than twenty years ago. Everything to change in the town since that time. 19) The nearest way to the station to show to them an hour ago, but they not/ to arrive yet. 20) She to ask the clerk if all the trains arrive on time here.

Ex.16. Past Indefinite, Past Continuous or Past Perfect? Put the verbs into the correct tense forms.
1) The police officer to ask me what I [to do] at the time when the accident took place. 2) They spoke so quickly that I didn’t understand what they [to talk] about. 3) While we [to wait] for the train, it [to start] to rain. 4) We knew that the 2 o’clock train [to leave] already and decided to go by bus. 5) Before I came to the office the manager already [to sign] the documents. 6) Where … you [to be] at about three yesterday afternoon? – Oh, I [to repair] my car at that time. 7) I [to see] you from the bus yesterday. Where … you [to hurry] at that time? 8) The journey from Paris to London [to take] much longer before the Channel Tunnel was built. 9) I didn’t convince the inspector that I [to lose] my ticket only some moments before. 10) The station master [to say] that no trains [to arrive] at the station during the night because of the heavy snowstorm in the mountains. 11) They [to work out] a detailed plan before starting off on an expedition. 12) Mary [to clean] the windscreen when she noticed a crack in the glass. 13) Some people [to sleep] on the benches waiting for their trains. 14) Yesterday he [to pass] his driving test at the first attempt.

Ex.17.
A) Give news about yourself and other people to a friend of yours. Use the words given to make sentences in the Present Perfect Tense Active or Passive.
Model: she/ to graduate from University/ this year. → This year she has graduated from University.
1) to Australia/ Jane and Mike/ to go to work/ already. 2) to promote/ this month/ John/ to the chief manager. 3) recently/ to find/ I/ a new job. 4) Jill/ this year/ London University/ not to enter. 5) not to retire/ my father/ yet. 6) my brother/ just/ a new motorcycle/ to buy. 7) Nick/ in another firm/ a good job/ to offer. 8) not to go/ this week/ he/ on business. 9) I/ recently/ to give/ as a
present/ a computer. 10) to join/ another football club. 11) Jack/ a fortune/ to receive, millionaire/ to become/ he. 12) out flat/ yet/ not to repair. 13) for ages/ not to see/ I/ you. 14) Ann/ just/ to return/ from London. 15) in London/ never/ to be/ I. 16) today/ I/ near my house/ to meet/ Ron/ by chance. 17) we/ since/ not to see/ each other/ last autumn.

B) Your friend is visiting his relatives in the USA. Ask him about what he or his relatives have seen or done.

Model: to have/ a good journey/ you? — Have you had a good journey?
1) already/ you/ to see/ the Great American Lakes? 2) your brother/ new places/ already/ to show/ what/ to you? 3) to Broadway/ ever/ to be/ you? 4) to get/ your father/ promotion/ lately? 5) to receive/ your driving license/ already/ you? 6) a car/ to change/ your brother/ this year? 7) to buy/ you/ what kind of house? 8) Mary/ not to meet/ you/ yet? 9) to move/ the Browns/ to another city/ why?

Ex.18. Read and translate the following sentences. State the tense and voice form of the predicates.

Model: have heard – Present Perfect Active (to hear)
will be increased – Future Indefinite Passive (to increase)

1) We have heard on the radio today that the railway fares will be increased. 2) The passengers had been invited to get on the train and now they were exchanging farewells with those who had come to see them off. 3) Boeing’s new airplane is faster and more luxurious than any other vehicles which have ever been produced. 4) Hurry up! I’m afraid by the time we get to the station the train will have already left. 5) The new American turbo-train has covered a 230-mile distance in 3 hours 15 minutes with 4 stops between Boston and New York. 6) The reason for the freight train derailment has not been found yet. 7) Until recently the price difference between the first and second class tickets on the Spanish Railways had been amounted to 81%. This difference has been greatly reduced and now first class fare is only 30% more expensive than second class. 8) When we came to the station the train had already arrived, and the passengers were hurrying to occupy their seats in the carriages. 9) It has been calculated that East Japan Railway Company sells 1,000 tons of tickets annually. These tickets are now being collected and re-used in the manufacture of cardboard and toilet paper. 10) For many years railway track has been laid and repaired by hard manual labor. 11) By the time the train reached its destination Paul had made friends with many of his fellow travelers. 12) Double-deck buses have been operated in Moscow for several months but they were found inconvenient especially during the rush hours. 13) The train stopped at all the stations, and long before we got to London every seat had been occupied and people were standing in the corridors.

Ex.19. Open the brackets using the verbs in the required tense form and translate the sentences from English into Russian.

1) The man [to fine – Present Perfect Passive] by a policeman for crossing the street in the wrong place.
2) When the fire brigade [to arrive – Past Indefinite Active], the fire [to destroy – Past Perfect Active] already the building.
3) Many people [to be – Past Indefinite Active] afraid of the railways when they first [to appear – Past Indefinite Active].
4) The movement of trains [to stop – Past Indefinite Passive] on that section of the line because the workers [to replace – Past Continuous Active] the sleepers.
5) Several newspapers [to report – Present Perfect Active] that the Russian and Finnish governments [to discuss – Present Continuous Active] a project for the reconstruction of the Helsinki-St.Petersburg railroad known in Finland as the Eastern Railway.
6) The train crew [to inform – Past Indefinite Passive] that the departure time [to change – Past Perfect Passive].

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7) Nowadays crossties [to make – Present Indefinite Passive] of wood, concrete, steel, cast-iron; in some countries experiments [to go on – Present Continuous Active] with plastic sleepers.

8) He [to spend – Present Indefinite Active] all his spare time driving his new car.

9) There [to be – Past Indefinite Active] a car by the side of the road. It [to break – Past Perfect Active] down and the driver [to try – Past Continuous Active] to repair it.

10) I [to take – Present Perfect Active] somebody else’s suitcase by mistake.

11) Turn off the gas. Don’t you see the kettle [to boil – Present Continuous Active]?

12) A man who [to sit – Past Continuous Active] in the compartment said that the place [to take – Past Indefinite Passive] by a passenger who [to go – Past Perfect Active] to the diner.

Ex.20. Choose the required voice form of the predicates (Active or Passive).

1) She can find [to make] a new device [has tested; has been tested] in the lab. 2) The dining car was crowded but we [served; were served] rather fast. 3) A taxi [called; was called] 15 minutes ago; so we [are expecting; are being expected] it any moment. 4) At the corner of the street we [saw; were seen] a car. The driver [was examining; was being examined] the engine. 5) The road is closed because the road-works [are conducting; are being conducted]. 6) Powerful track-laying machines [have developed; have been developed] for the building of railroads. 7) The European Bank for Reconstruction and Development [has made; has been made] a loan of SUS 120 to the Russian Ministry of Railways for the railway rehabilitation project. 8) David thought that his father [had repaired; had been repaired] his bicycle. 9) A new railway underground line [being constructed] in our city. One of the Metro stations [will build; will be built] near my house. 10) He [broke; was broken] my watch. 11) The manager [has offered; has been offered] me several jobs. 12) I [will give; will be given] a leave in July if there is no urgent work. 13) It was noisy. Nobody [was listening; was being listened] to him. 14) Bill [kept; was kept] his word and arrived exactly at the time he [had promised; had been promised]. 15) You can’t watch the film now; the TV set [is fixing; is being fixed] by the mechanic.

Ex.21. In the following sentences replace Active with Passive:

A) using the Indefinite, Continuous, Perfect Tenses.

Model: 1) The manager will sign the contracts tomorrow. → The contracts will be signed by the manager tomorrow. 2) We had to hurry. They were waiting for us. → We had to hurry. We were being waited for. 3) Have they tested all the machines? → Have all the machines been tested?

1) The railway builders have finished the construction of the line ahead of time. 2) Russia developed the first automatic engine driver in 1960. 3) By that time we had changed our plans. 4) They bought tickets two days before their departure. 5) Air-conditioning system always maintains the optimum temperature and humidity in the carriage. 6) The management of the railway will install the new electronic system for booking train tickets at the terminals. 7) People build viaducts in order to cross gorges, canyons and ravines. 8) Engineers are busy now; they are testing a new engine. 9) He reported that the firm was holding talks about the construction of the automobile plant in our city. 10) They gave him no explanation why they had stopped the engine in order to cross gorges, canyons and ravines. 11) Engineers are busy now; they are testing the new electronic system for booking train tickets at the terminals. 12) By his arrival they had repaired the car. 13) The new railway line will connect central and eastern regions of the country. 14) By his arrival they had repaired the car. 15) He has booked the tickets and the clerk will have brought them by 2 o’clock. 16) I’m afraid, you will be late. They will have finished the talks by 5 o’clock.

B) using modal verbs.

Model: He can do this work. → The work can be done (by him).

1) She can find a job easily. 2) The matter is urgent. They have to phone her immediately. 3) You must send the document as quickly as possible. 4) He has got a pay rise now they can buy a new house. 5) The lecture is over. You may ask your questions. 6) Ecologists say that we should take care of our
planet. 7) He was to give back the book on Saturday. 8) The boss wants to talk to Mr. Black. You must find him immediately. 9) You should avoid the centre of the city during rush hours. 10) We are to conduct a series of experiments this week. 11) He should not sign the contract without reading it thoroughly. 12) You must not exceed the speed limit if you don’t want to be fined by the traffic policeman. 13) You may write this exercise with a pencil. 14) You must do it without delay.

Ex.22. TEST. Choose the correct grammar form to translate a predicate.
1) Этот вокзал был пущен в эксплуатацию в прошлом году.
   a) has been put  b) was put  c) was being put
2) Сейчас здесь строится новый супермаркет.
   a) is being built  b) is built  c) is building
3) Мы приступили к работе, после того как прочитали инструкцию.
   a) started  b) were started  c) have started
   a) had been read  b) has read  c) had read
4) Студентов экзаменуют два раза в год.
   a) are being examined  b) are examined  c) has been examined
5) Новое здание института уже построили, когда я поступил на экономический факультет.
   a) was constructed  b) has been constructed  c) had been constructed
6) Сколько стоит билет до Вашингтона? – Я заплатил $150 за нижнее место в спальном вагоне первого класса.
   a) does … cost  b) is … cost  c) has … cost
   a) had paid  b) was paid  c) paid
7) Секретарь ещё печатает списки участников олимпиады по английскому языку.
   a) is being typed  b) types  c) is typing
8) К сожалению, вы его не застанете. К этому времени он уже уедет на вокзал.
   a) won’t get  b) don’t get  c) haven’t got
   a) will go  b) will have gone  c) has gone
9) Каждая жилая линия имеет свой км.
   a) has been increased  b) has been increased  c) has never been increased
10) Наш завод выпустит новый автомобиль к концу года.
   a) will produce  b) will be producing  c) will have produced
11) Джон недавно купил новый мотоцикл.
    a) bought  b) has bought  c) had bought
12) Я видел тебя вчера из автобуса. Куда ты так спешил?
    a) have seen  b) was seeing  c) saw
    a) were…hurrying  b) did…hurry  c) had…hurried

Ex.23. Put questions to the underlined words.
1) The length of the bus route has been increased by 3 km. [How many…?]
2) The rails are called T-rails because of their shape. [Why…?]
3) The load weighs a hundred kilograms. [How many…?]
4) Each passenger must fasten the belt when the plane takes off or lands. [When…?]
5) Now all the railways have a standard gauge. [What…?]
6) She left her driving license at home. [Where…?]
7) They have been offered £350 for their old car, but its price is much higher. [Who...? How much...?]
8) For some period of time one underground railway line in London was working entirely without drivers. [Where...?]
9) Twenty seven British scientists have gained Nobel awards since 1945. [What...?]
10) The pipe is leaking at the joint. [Where...?]
11) The two-speed escalators are being installed at new Metro stations. [Where...?]
12) According to the terms of the contract the equipment will be paid for on delivery. [When...?]
13) The service life of steel sleepers lasts from 35 to 60 years. [How long...?]
14) The windows in this car are made of unbreakable glass. [What...?]
15) On the bus he was sitting right in front of me. [Where...?]
16) The first motor car drivers had to carry large cans of fuel as there were no filling stations at that time. [Why...?]

Ex. 24. Translate the following sentences, paying attention to different tense forms and voice of the predicates.
1) После реконструкции линии скорость поездов будет увеличена. 2) Ты обычно покупаешь билеты заранее или в день отъезда? – Это зависит от обстоятельств (circumstances). 3) Когда отправляется поезд в Бостон? – Один поезд только что ушёл, а следующий будет через два часа. 4) Поезд проходит расстояние от Москвы до Самары за 20 часов. 5) Вы не можете взять сейчас магнитофон, так как он сломался, и его ремонтируют. 6) Проводник вышел из вагона и пригласил пассажиров занять свои места. 7) Когда мы пришли на станцию, все билеты были уже проданы. 8) Машины медленно двигались по горной дороге. 9) Главный инженер сказал, что наш проект обсуждали долгое время, но, в конце концов (eventually), он был принят. 10) Паровой двигатель был изобретён в 18 веке.

TEXT A
Read and translate the text using a dictionary if necessary.
FROM THE HISTORY OF RAILWAY TRANSPORT

Part 1

The word ‘transport’ (or ‘transportation’) means to carry people or goods from place to place. Henry Ford, the American motor-car manufacturer, said that “transportation is civilization”.

The history of transport is divided into two stages. The first stage is that in which all modes of transport depended directly on the power of men or animals, or on natural forces such as wind and current. The second stage began with the development of the steam engine. Do you know who invented it? It is sometimes said that James Watt got the idea for a steam engine while still a boy, watching steam lift the lid of his mother's tea kettle. The truth is that James Watt did not invent the steam engine; however, he made major improvements on the inefficient steam engine patented in 1705 by Thomas Newcomen, John Cawley, and Thomas Savery. James Watt installed his engine in a machine which was used at a large coal mine for pumping out the water. Soon this invention was widely used at nearly every large enterprise. The revolution in industry made by this machine was extremely great.

One of the first attempts to put a steam engine on wheels was made by Richard Trevithick, a British mining engineer. In 1804 he demonstrated the first successful railroad steam locomotive. His engine pulled a short train of cars uphill on a coal-mine railway in Wales. In the years after Trevithick’s locomotive, several others were built for use on various British coal-mine railways.

The world’s first common carrier railroad to use steam power was the Stockton-Darlington railway in England. It was designed and built by George Stephenson and opened for public service
in 1825. On the day when it was opened, a man on a horse went in front of the engine and shouted that the train was coming. People on horses and in carriages were driving near the train. When they had gone for some time, Stephenson, who was running his locomotive, asked the horseman to go away. He put steam on and ran his locomotive at a speed of 12 miles per hour (about 20 km per hour). It was a success.

But the British Parliament did not want to construct railways. The members of the parliament did not believe that steam engines could run against a strong wind. Then Stephenson built a new locomotive and called it the *Rocket*. This locomotive was faster and stronger than the first one; it could draw a 13-ton train at an “unheard-of speed” of 29 miles per hour (46 km per hour). In 1829 the Liverpool-Manchester Railway was built, and the railway company offered a prize of £500 for the best steam loco. The prize was won by George Stephenson with his famous train. Though not the first such locomotive, it was the beginning of the effective use of steam power for passenger and freight transportation. At first many people were afraid of the railways; nevertheless in 1842 the steam-powered railways were already in wide use in Britain.

**Part 2**

Railroads were born in England, a country of dense population, short distances, and large financial resources. In England problems were very different from those in America, which in the early 1800s was a country of great distances, sparse population, and limited capital. Americans had to learn to build railroads for their own country by actual experience; they could not copy English methods.

In the USA the first railroads were built in mines for carrying stone or coal. In 1804 Oliver Evans (who had built an amphibious steam-powered scow with wheels) declared that he could “make a steam carriage that will run at a speed of 15 miles per hour on good, level railways.” As early as 1812 Colonel John Stevens, of Hoboken, N.J., began to speak for a new kind of railway. He wanted one that would provide long-distance transportation, linking distant areas of the country. In 1815 Stevens obtained the first charter to build a railroad across New Jersey, but he was unable to raise the money needed to build it. The first common carrier railroad to be built in the United States was the Baltimore and Ohio. It was chartered in 1827 and construction started on July 4, 1828.

The first steam locomotive to run in the United States, the English-built *Stourbridge Lion*, made a trial trip over the tracks of the Delaware and Hudson Canal Company in Pennsylvania in 1829. On the day of a test trip a lot of people came from miles around the small Pennsylvania town to see the first run of the steam locomotive. The engineer refused to let anyone ride with him – perhaps because the engine had not been tested before. As the signal to start was given, there was a moment of suspense. Then, slowly, the wheels began to turn. Cheers went up as engineer Allen opened the throttle wide and began his historic trip. All along the route, men were waving their hats, small boys were shouting, and women were looking in amazement as the *Lion* thundered past at the fantastic speed of ten miles per hour. Who would have believed that anything so big could move so fast without a horse to pull it! But the engine was too heavy for the track and the trip was not repeated.

In the summer of 1830 service began on the Baltimore and Ohio line, with horses providing the power. Finally, in December 1830 an American-built locomotive, the *Best Friend of Charleston*, hauled a train of cars on the tracks of the South Carolina Railroad. The railroad had come to America.

Railroads spread rapidly in the eastern and southern United States, with short lines being merged to form through routes. By the mid-1850s, railways linked the Atlantic seaboard and the Midwest. In 1869 the first transcontinental route was completed to the Pacific coast. Railroads became the dominant mode of overland transportation in the last half of the 19th century. Faster and more powerful locomotives and larger freight and passenger cars were built. Standardization of track gauges and the adoption of standard time zones aided efficiency. The invention of air brakes,
automatic signaling, and the automatic coupler increased safety. Sleeping cars and dining cars increased passenger comfort and convenience.

Notes: ¹common carrier railroad – железная дорога общего пользования
²engineer – эд: машинист
³throttle – дроссель, дроссельная заслонка
⁴air brake – воздушный тормоз
⁵automatic coupler – автосцепка

Ex.25. Answer the following questions.
1) What does the word ‘transport’ mean? 2) Who said that “transportation is civilization”? 3) How many stages is the history of transport divided into? 4) Did the second stage in the history of transport begin with the invention of the wheel? 5) Whom was the first steam engine invented by? 6) Did Thomas Savery improve the inefficient steam engine designed by Thomas Newcomen? 7) Where did James Watt install his engine? 8) Who made one of the first attempts to put a steam engine on wheels? 9) Where was the world’s first common carrier railroad to use steam power built? 10) Did Robert Stephenson design and built the first common carrier railway in Britain? 11) Why didn’t the British Parliament want to build railways? 12) When was the Liverpool-Manchester Railway put into operation? 13) What can you say about the locomotive called the Rocket?

Ex.26. True or false? Correct the statements which do not correspond to the contents of the text (part 2).
1) In the early 1800s America was a country of great distances, dense population, and large capital. 2) Americans learnt to build railroads by coping English methods of construction. 3) The first American railroads were built in large cities for carrying passengers. 4) In 1812 John Stevens obtained the first charter to build a railroad across New Jersey, but he was unable to raise the money needed for its building. 5) The first common carrier railroad to be built in the United States was the Baltimore and Ohio line. 6) The Baltimore-Ohio railroad opened for traffic in the summer of 1830 was horse-powered. 7) The first steam locomotive to run in the United States was the English-built Rocket. 8) In 1829 the American-built locomotive called the Stourbridge Lion made a trial trip in Pennsylvania. 9) The engineer of the Lion refused to let anyone ride with him. 10) The speed of the Stourbridge Lion was twenty miles per hour. 11) 11) The first American-built locomotive called the Best Friend of Charleston was put into operation on the tracks of the South Carolina Railroad.

Ex.27. Choose the correct word combination to complete each of the following sentences corresponding to the contents of the text.
1) The remark “transportation is civilization” was made by… .
   a) George Washington b) Henry Ford c) James Watt
2) One of the mankind’s greatest inventions of the 18th century was… .
   a) the steam engine b) the jet engine c) the internal combustion engine
3) The first stationary steam engines were installed… .
   a) at large farms b) at various industrial enterprises c) at coal mines
4) One of the first attempts to put a steam engine on wheels was made by… .
   a) Richard Trevithick b) Thomas Newcomen c) George Stephenson
5) The first common carrier railway in Britain was laid down between… .
   a) Manchester and Liverpool b) Stockton and London c) Darlington and Stockton
6) The famous steam locomotive called the Rocket moved at a speed of… .
   a) 46 miles per hour b) 12 miles per hour c) 29 miles per hour
7) The British Parliament objected to constructing railways because… .
   a) people were afraid of railways b) the members of the British Parliament did not believe that locomotives could run against a strong wind c) there were no materials for the construction of railroads
8) John Stevens failed to build a railroad across New Jersey (the USA) because….
   a) he couldn’t find railway workers  b) he was unable to raise the money  c) people of the state objected to constructing

10) The construction of the Baltimore-Ohio railroad lasted….
   a) ten years  b) one year  c) three years

11) The first American-built steam locomotive was called….
   a) the Stourbridge Lion  b) the Best Friend of Charleston  c) the Rocket

12) Railroads became the dominant means of overland transportation in the United States….
   a) in the 18th century  b) in the first half of the 19th century  c) in the last half of the 19th century

Ex.28. You know that there are various types of engines, such as: the water-powered engine, the wind-powered engine, the steam engine, the internal combustion engine (diesel, petrol, electric, jet). Read the following sentences and say which type of the engine is described.

1) In this engine fuel ignites and burns inside the engine itself and not in a furnace. This engine is very economical; it doesn't need fuel to function. But it is dependent on the weather.

2) In this engine there is a furnace and a boiler. The furnace is filled with wood or coal and then lit. The fire heats the water in the boiler and when it boils, it turns into steam.

3) It was a wheel but a very small one. Long wide wooden blades were attached to it. The wheel was driven by the wind.

4) This engine is too large and heavy; it needs too much fuel.

5) This engine is an ordinary wheel with blades fixed to it and the current of a river turned it. It was used for irrigating fields.

6) This engine is lighter and smaller than a steam engine because it doesn't have a boiler. It is more powerful than a steam engine because it uses better-quality fuel: petrol or kerosene.

7) The power of this engine depends on the quantity of coal. The more coal is put into the furnace, the stronger the fire is burning. The more steam there is the faster a train is moving.

8) The power of this engine depends on the quantity of coal. The more coal is put into the furnace, the stronger the fire is burning. The more steam there is the faster a train is moving.

9) This engine is the most ecologically friendly one, because it doesn't pollute environment with exhausted gases.

10) This engine is now used in automobiles, diesel locos and motor ships.

11) This engine is the most powerful, because the gases in it reach the temperature of over a thousand degrees.

Ex.29. Translate the following texts: (a) from Russian into English and (b) from English into Russian (do it in written form).

(a) НАЧАЛО СТРОИТЕЛЬСТВА ЖЕЛЕЗНЫХ ДОРОГ В РОССИИ

Строительство железных дорог в России началось во второй половине 18 века. Первые вагонеточные пути были проложены на Урале. Они использовались для перевозки угля с шахт на Кольвано-Воскресенский завод (Kolyvano-Voskresensk Works). Как рельсы, так и шпалы были сделаны из дерева. Уголь перевозили в деревянных тележках (a wooden hand-cart), которые назывались «собаками», потому что скрип несмазанных колес (the creak of unlubricated wheels) был похож на визг (a squeal) собаки. Следует упомянуть, что тележки приводились в движение водяным колесом, в то время как в Европе основной движущей силой был ручной труд.

Такие русские изобретатели, как А.С. Ярцев, отец и сын Фроловы, сыграли важную роль в истории строительства железных дорог. Ярцев предложил заменить деревянные рельсы...
чугунными и в 1788 году построил первую «чугунку» на артиллерийском заводе (Gun Works) в Петрозаводске. 30 лет спустя другая железная дорога с чугунными рельсами была проложена в Алтайских горах инженером Фроловым. Её длина была 2 км. Железная дорога приводилась в движение лошадьми. Следует заметить, что лошади заменили (труд) около 500 рабочих.

Следующий этап в истории железнодорожного транспорта в России начался с изобретения парового двигателя. Он был изобретён И.И. Полтуновым, а отец и сын Черепановы построили первый паровоз. Он двигался со скоростью 13-16 км в час и мог перевозить 3.3 т грузов и 40 пассажиров. Первый паровоз был испытан в Нижнем Тагиле. Л.Гумилёвский писал в своей книге «Русские инженеры»: «Нижнетагильскую железную дорогу, сооружённую русскими мастерами, из русских материалов, по проекту русских изобретателей следует считать (should be considered) первой русской железной дорогой».

(b) THE OLDEST RAILWAY IN RUSSIA

The St.Petersburg–Moscow mainline is considered to be the oldest and the most outstanding railway in Russia. 

In the thirties of the 19th century much was spoken about the necessity of its construction and various projects were proposed by Pravdin, Safonov, Muraviov, Abaza, but all of them were rejected. In June 1839, the professors of the Moscow Engineering Institute P.P.Melnikov and N.O. Kraft were sent to the USA for the purpose of studying experience gained by the Americans in constructing and operating the railways. Melnikov's report about the results of their trip laid down the basis of the future railway project.

According to this project «chugunka» was planned as a double-track line, 664 km long, with the 5 feet gauge (now the standard), steam powered. The speed of passenger and freight trains was supposed to be 34.4 km/h and 16 km/h respectively. 

The construction began in 1843 and lasted 8 years. From the very beginning the builders faced many hardships because of severe climatic and difficult geological conditions. Hundreds of kilometers of track were laid down through forests and marshes, many rivers were crossed. It should be noted that the line is virtually straight and level. 185 bridges and 19 viaducts were built to make the line as straight as possible. There is a legend that the route of the railway was chosen by the tsar Nikolay I, who took the map and the ruler, drew a straight line between the two cities on the map and ordered this line to be the route of the railway. But the fact is that the construction of the line was preceded by long and thorough surveying work, a great part of which was done by P.P. Melnikov himself.

All the component parts of the track, bridges and viaducts were produced at Russian plants by using only domestic materials, including timber for sleepers and cast iron for rails.

One has to give credit [нужно отдать должное] to the first railway builders, who laid the track in extremely difficult conditions. They worked from dawn till sunset, often in water up to their knees and their main tools were spades and axes. P.P. Melnikov proposed to mechanize the railway construction, but his idea was not backed up because it required a lot of expenses., Nevertheless, four excavators were bought in the USA on Melnikov's recommendation. It is interesting to note that at that time there were only seven excavators in the world. The other three ones were operated in the USA and Great Britain.

The railway was officially opened for public traffic on November 1, 1851. The first train departed from St.Petersburg at 11.15 and arrived in Moscow 21 hours 45 minutes later. There were 17 passengers in the first-class cars, 63 – in the second-class cars and 112 – in the third-class cars. The speed of the first trains was 40 km/h but two years later it was increased up to 60 km/h. It was the world’s record in the speed of passenger trains. It should be added that the Alexander Engineering Works was established in St. Petersburg to provide this railway with locomotives and cars.
Ex.30. Answer the following questions.

1) When were the first projects of the railway construction proposed? 2) Why was it necessary to connect the two capitals in Russia? 3) Whose project of construction was accepted? 4) Why were Melnikov and Kraft sent to America? 5) When did the construction begin? 6) How long did the construction last? 7) Why was it difficult to build the railway? 8) What was built to make the line as straight as possible? 9) Is there any legend about the construction? 10) What were the rails and sleepers made of? 11) What equipment was used for the construction? 12) What was done to facilitate the workers' labor? 13) When was the railway officially opened for public traffic? 14) What time did the first train depart from St. Petersburg and arrive in Moscow? 15) How many passengers were there in the first train? 16) What was its speed? 17) What plant was established to provide this railway with rolling stock?

Ex.31. Arrange the following sentences in a chronological order, put questions to the underlined words. Using your questions tell about the beginning of railway construction in Russia.

1) The first steam locomotive was tested in Nizhniy Tagil. 2) The first railway carrying passengers was officially opened for public traffic in 1851. 3) Such engineers as P.K. Frolov, A.S. Yartsev, and I.I. Polsunov made great contribution to the development of railway transport in Russia. 4) The first tram ways were laid down in the Urals. 5) The history of railway construction in Russia began in the second half of the 18th century. 6) I.I. Polsunov invented the stationary steam engine in 1763. 7) At the beginning of the 19th century it was decided to build the railway connecting two Russian capitals. 8) A.S. Yartsev suggested using cast iron rails instead of wooden ones in 1788. 9) The Cherepanovs constructed the first steam locomotive. 10) Goods were transported in carts driven by the water wheel. 11) The construction of the St.Petersburg-Moscow line began in 1843 and lasted eight years. 12) The first tram ways were used for carrying coal, ore and other goods. 13) The railway constructed by P.K. Frolov was horse-powered. 14) P.K. Frolov built “chugunka” in the Altai Mountains.

Ex.32. Complete the sentences and add your own information to develop the situation.

1) The history of railway construction… . 2) The first tram ways… . 3) The first rails and sleepers… . 4) Coal and other goods… . 5) In the Western Europe the carts with coal were driven by the workers, but in Russia… . 6) The wooden carts were called… . 7) Much was done for the railway construction by… . 8) Yartsev suggested replacing… . 9) The first railway with cast iron rails… . 10) The Cherepanovs, father and son… . 11) The first steam engine… . 12) The first steam locomotive could… . 13) The Nizhniy Tagil railway… .

TEXT B

Below there are four texts about famous people of Great Britain and the USA. Choose any text you like, read it and make up the list of the words you don’t know. Look up the meaning of the unknown words in your dictionary. Be careful because one of your group-mates will translate the text you have chosen without a dictionary, using only the list of words you have written out.

THE STEPHENSON FAMILY

George Stephenson was born on June 9, 1781, in the mining village of Wylam, Northumberland, England. He went to work as a horse-driver in a coal-mine at an early age and without formal schooling. At nineteen George was put to work on a steam engine. Now he had time to learn reading and writing. In 1814 Stephenson made a design of the Blocher, one of the first railroad locomotives. But George couldn’t build it because he had no money. In 1815 he patented an engine with a steam blast, by which exhaust steam was redirected up the chimney. The new design increased the engines power and made the locomotive truly practical. In the same year Stephenson also invented a safety lamp for miners.
In 1822 he was commissioned to build a steam locomotive for a railroad line to be built from Stockton to Darlington. His son, Robert, assisted him in survey work for the tracks, and on Sept. 27, 1825, the railroad was opened for public traffic. In 1823 George Stephenson established a locomotive works in Newcastle. George and Robert then cooperated in the construction of a railway connecting Liverpool and Manchester. In 1829, the railway company held a competition to find a suitable locomotive for the line; George and Robert won the contest with the *Rocket*, an engine with a multi-tubular boiler. George Stephenson died in Chesterfield, Derbyshire, on Aug. 12, 1848.

Robert Stephenson was George’s only son. He was born in Willington Quay, Northumberland, on Oct. 16, 1803. He studied mathematics at Bruce’s Academy in Newcastle upon Tyne and later attended Edinburgh University. He managed the Newcastle locomotive works and in 1833 was appointed chief engineer of the London and Birmingham Railway, the first railway into London. He directed several major engineering works, but he is best known for his long-span railroad bridges. Robert died in London on Oct. 12, 1859.

George Robert Stephenson (1819–1905), a civil engineer educated at King William College on the Isle of Man, entered his uncle George Stephenson's employ in 1837 during the construction of a railway from Manchester to Leeds. He helped Robert build the Victoria Bridge across the St. Lawrence River in Canada and served as a consultant and designer on independent projects in England and abroad. Upon Robert's death in 1859, George Robert became director of the Newcastle locomotive works.

### Notes:
1. *steam blast* – выхлоп пара
2. *multi-tubular boiler* – многотрубный паровой котёл
3. *bridge span* – пролёт моста
4. *civil engineer* – инженер строитель

### THE BRUNELS FAMILY

Two engineers whose inventions had a major influence on transportation methods were Marc Isambard Brunel and his only son, Isambard Kingdom Brunel. Marc solved the historic problem of underwater tunneling. Isambard, a civil and mechanical engineer, was the designer of the first transatlantic steamer.

Marc Isambard Brunel was born on April 25, 1769, in Hacqueville, France. Because of his Royalist sympathies, he fled to the United States in 1793 during the French Revolution. He held the post of chief engineer of New York.

After Brunel improved a method for loading ships by mechanical means, rather than by hand, he sailed to England in 1799 to market his plans to the British government. A prolific inventor, he also designed machines for sawing timber, boot making, knitting, and printing. In 1818, in his practice as a civil engineer, he patented the tunneling shield, a device that made safe underwater tunneling possible. In 1825 operations began for building the Brunel-designed tunnel under the Thames River. This project, which had no precedent, was completed in 1842, after great physical and financial difficulties. Brunel, who was knighted for his engineering feat, died in London on Dec. 12, 1849.

Isambard Kingdom Brunel was born in Portsmouth, England, on April 9, 1806. At the age of 19 he was appointed resident-engineer when work on the Thames Tunnel began. Later he served as engineer at the Bristol Docks and also designed several other docks in England. In 1833 he was appointed chief engineer to the Great Western Railway. His introduction of the broad-gauge railway, with tracks 7 feet (2 meters) apart, made possible high speeds that helped stimulate rail progress. Brunel was responsible for building railways in Great Britain and Italy and served as an adviser on projects in Australia and India.

The younger Brunel's outstanding contributions to marine engineering were his three ships, each the largest in the world at its launching date. The *Great Western* (1837), a wooden paddle vessel, was the first steamship to provide regular transatlantic service. The *Great Britain* (1843) was the first large vessel driven by a screw propeller. The *Great Eastern* (1858) achieved fame by laying the
first successful transatlantic cable. During the Crimean War, he designed a complete prefabricated
hospital building that was shipped in parts to the Crimea and a floating armored barge that was used
in warfare. Isambard Brunel died on Sept. 15, 1859, in London.

GEORGE WESTINGHOUSE (1846 – 1914)

“If I understand you, young man, you propose to stop a railroad train with wind. I have no time
to listen to such nonsense.” Commodore Cornelius Vanderbilt, the powerful railroad owner, thus
dismissed George Westinghouse and his new air brake. But within a few years the old hand brakes
on trains were replaced with air brakes, launching Westinghouse into a notable career as inventor
and industrialist.

Westinghouse was born on Oct. 6, 1846, in Central Bridge, N.Y. (the USA). The son of a
manufacturer of farm implements, he explored the world of machines at an early age. After serving
in both the Union Army and the Navy in the Civil War, Westinghouse received in 1865 his first
patent—for a rotary steam engine. In that same year he invented a device for replacing derailed1
freight cars on their tracks. Railroad problems fascinated Westinghouse. Among his other
inventions was a device called a frog that allowed wheels on one rail of a track to cross an
intersecting rail. He bought various patents on railroad switches2 and signals and combined them
with his own developments into an efficient switching system. The air brake, his greatest invention,
was patented in 1869, the same year he organized the Westinghouse Air Brake Company. With
various design improvements, the air brake became widely accepted, and the Railroad Safety
Appliance Act of 1893 made them compulsory on trains in the United States.

Westinghouse was chiefly responsible for the adoption of alternating current (AC)3 systems for
electric power transmission in the United States, which up to the 1880s had used direct current
(DC)4 systems. Importing an AC system from Europe, Westinghouse purchased the patents of
Nikola Tesla’s AC motor and hired him to improve and modify the motor for use in the power
system. Once the new system was ready, advocates of DC power set out to discredit AC power.
Public acceptance of AC power came soon after Westinghouse dramatically proved its advantages
at the World’s Columbian Exposition in Chicago (1893). Using incandescent lighting, the
fairground was set aglow with light. With buildings set like jewels against the evening sky, the
display marked the start of large-scale outdoor lighting and of illuminated advertising signs.

Most of the Westinghouse factories were located in Pittsburgh and associated companies were
established throughout the world. Westinghouse lost most of his control over his industrial empire
during the financial panic of 1907. He died in New York City on March 12, 1914.

CASEY JONES (1864 – 1900)

Casey Jones was the great American locomotive engineer hero who would not save1 his own life
but died doing his duty. Casey worked as an engineer of the American train the Cannon-ball which
ran between Tennessee and Mississippi on Illinois Central Railroad. He was a skilful engine-driver
and always brought the train in on time. Casey was skilful with the whistle too – the locomotive
whistle. He had a special way of blowing it: beginning very softly, rising to a shriek, and dying
away. It would2 made people’s hair stand on end3 as the train passed by in the night. “There Casey is
going,” they said.

On the night of April 29, 1900 when Casey had just finished his own run and brought the
Cannon-ball into the town on time, he was said that the engineer of another train fell ill and couldn’t make his run. Casey offered to substitute his friend and pulled the train out of the station at 11 p.m. The train was already one hour and thirty-five minutes late at the start.

Casey wanted to make up the time and he ran his locomotive at a high speed. By four o’clock in the morning he had made up most of the time, but suddenly in front of his engine, as he came round a curve, he saw a standing freight train on the rails.

“Jump, Sim,” he cried.

Sim Webb, fireman to Casey Jones, jumped and lived to tell the story. Casey’s body was found with one hand still on the whistle and one on the air-brake.

There is a monument to Casey Jones in his native town in Kentucky. In 1950 the United States Government put out a three-cent stamp in honor of American railroad engineers, which has the portrait of Casey Jones and a picture of the old Locomotive 382.

Notes:
1 would not save – не захотел спасти
2 would – зд: бывало
3 to stand on end – вставать дыбом
4 to make up the time – наверстать время

TEXT C

Read the text putting the verbs in brackets into the correct form of Past Indefinite Active or Past Indefinite Passive. Translate the text.

THE TRANS-SIBERIAN MAINLINE

Siberia is a vast expanse of land that stretches across Russia from the Urals Mountains in the west to the Pacific Ocean in the east. In the 19th century Siberia was Russia’s frontier—thinly populated, largely unexplored, yet possessing vast economic potential. Settlement in the region was sparse until the building of the unique Trans-Siberian Railroad, which connected the European part of the country with the Pacific Coast and made large-scale immigration possible. According to Minister of Railways S.Yu. Witte: “The Great Siberian Railway breathed new life into boundless Siberian lands.”

The history of railway construction in Russia started at the end of the 19th century. Railway mainlines were laid down from the Western borders of the country to St. Petersburg and Moscow, from the center to the Volga region and from the Urals to Central Asia. In 1892 the railway network in Russia had a total length of 32,000 km. That very year Samara-Zlatoust railway was built, which later became a liaison between railways in the European part of Russia and the Trans-Siberian Mainline.

On March 15, 1891 Alexander III issued an imperial prescript addressed to future Emperor Nicholay II which stated: “I command to start constructing a railway across all Siberia to connect the Siberian region with the European part of Russia. I also entrust you with ground-breaking1 of the Great Siberian Track in Vladivostok.”

Two projects of the future mainline were proposed—“the southern version” and “the northern version”. “The northern version” suggested by the Minister of Railways K.N. Posyet won. According to his project the railway was to be shorter by 400 km and was passing by the Siberian high road and populated areas.

The building of the Great Siberian Track began in 1893. Work started at the same time from both the eastern and western terminals. The plan originally called for an all-Russian road, but a treaty with China in 1896 enabled the Russians to construct an 800-mile (1,300-kilometer) line through Manchuria, thus shortening the distance to Vladivostok. After Manchuria passed to Japanese hands following the Russian-Japanese War of 1904—05, the Russians proceeded with a longer railway entirely on their own territory. Construction rates were very fast despite the fact that the railroad went through swamps, thick taiga, major rivers and huge mountains. One of the main obstacles to completion of the line was the Amur River line north of Lake Baikal, where there was a ferry service. A loop around the lakeshore in 1905. By 1916 the Amur River line north of

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the Chinese border \textit{to finish}, and there \textit{to be} a continuous railway on Russian land from Moscow across Siberia. In less than 25 years more than 8,600 km of track \textit{to lay down}. The building of the gigantic mainline \textit{to be} a heroic deed accomplished by Russian construction workers thanks to their tenacious efforts and courage. At first 10,000 workers \textit{to take part} in the construction. Later, their number \textit{to go up} to 100,000. Some of Trans-Siberian stations bear their names – Rukhlovo, Vyazemskaya, Baranovsky, Snarsky, Adrinovka, etc.

\textit{Notes:} 'ground-breaking – начало строительства (дороги)'

\textit{high road – тракт}

\textbf{Ex.32. True or false? Correct the false statements.}

1) The Trans-Siberian Mainline connects the Asian part of Russia with the Pacific Coast. 2) Alexander III commanded to start constructing the Great Siberian Track. 3) Six projects of the construction were proposed. 4) The project of the Minister of Railways Witte won. 5) The first rail of the future Trans-Siberian Railway was laid down in Vladivostok. 6) The length of this railway is more than 80,600 km. 7) About 5,000 workers took part in the mainline construction. 8) The track went through swamps and taiga. 9) One of the main obstacles to completion of the line was the Pacific Ocean. 10) The construction lasted 15 years. 11) The Great Siberian Railway breathed new life into boundless Siberian lands. 12) The building of the gigantic mainline was a heroic deed accomplished by English construction workers.

\textbf{TEXT D}

\textbf{Read and translate the text using a dictionary. Pay special attention to the words and word combinations in bold and guess their meaning.}

\textbf{THE RISE AND FALL OF THE AMERICAN RAIL SYSTEM}

[1] The American people and its history have a \textit{“love-hate” relationship} to the railroad. Without the railroad, the “Wild West” would not have been settled as quickly as it was. Was this a good or a bad thing? Ask an average Native American and then ask an average White American. The railroads eventually put the cowboys out of business, too. The American Civil War came to a close, in part, because the Union had an extensive railroad system and the Confederacy did not. Ask an American from Louisiana what s/he thinks about the Northern victory and then ask someone from Massachusetts. But to move to a more contemporary question, ask someone from New York if they would rather fly to Los Angeles or take a train there. What would you rather do if you had to get from St. Petersburg to Vladivostok?

[2] Steam railways began to appear in the East of the USA in the 1820s. At that time, it was more of a novelty than an efficient transportation method. If you were a merchant or a bold immigrant and wanted to move west, you went by boat. The first use of the locomotive for passenger transport was on Christmas day, 1930, in Charleston, South Carolina. Within the next decade 4,480 km had been laid, mainly within states along the Atlantic seaborder. As the new nation grew to the Midwest in the 1850s, tracks totaled 14,400 km in length and by 1860 track length had almost tripled to 48,000 km. Immigration to cities like Chicago grew because of the railroads. By 1860 the sheer amount of track in the USA almost equaled the total track length of the world’s countries combined. In essence, the railroad helped America grow industrially. Population rates increased dramatically.

[3] As mentioned above, the Confederacy lost the Civil War because it simply did not have the rail or industrial power that the Union did. Much of the Union strategy was based on \textit{cutting the rail lines between} Confederate States. After 1865 to about 1914, the real Golden Age of American Rail \textit{reigned}. On May 10, 1869, the Atlantic Coast was linked to the Pacific Coast in Promontory, Utah. Year round, passengers and merchant could travel/send goods from coast to coast. By 1885, a series of 4 similar rail lines \textit{sprung into action}, one of which \textit{caused the}
The railways profoundly shaped the United States and continued to do so until about the 1930s. From that point on until the mid-seventies, road and air transport competed with the train and slowly caused many lines to go out of business. In the 1970s, for example, 10 major lines went bankrupt and the Federal Government bought a good portion of this dying service industry. The new system was called Amtrak and provided passenger service between major urban centers.

Today, however, most Americans prefer to travel by plane. Prices for long distance flights are just slightly higher or equal to train tickets to the same destination. Factor in the time passengers save by flying, plus convenience, and you can easily see why American rail can never be what it once was. Although people prefer to travel quickly and comfortably by air, freight goods are still transported by rail.

LESSON FOUR
UNDERGROUND RAILWAYS

Ex.1. Practice the reading.
► ou, ow
• amount, council, dismount, announce, discount, fountain, soundproof, compound, layout, output, round, pronounce, about, bounty, accountancy, shout, proud, boundary, aloud, arouse, paramount, power, crowd, downtown, gown, grower, powder;
• owing, own, narrow, borrow, rainbow, arrow, shallow, blow, flow, follow, grow, below;
• BUT: group, route, could, would, should, acoustic; double, couple, trouble, country, touch, courage; soul.
► ere, ure, are, ire (yre), ore
• merely, atmosphere, here, sincere, adhere;
• cure, demure, premature, secure, endure, purely, mature;
• declare, software, carefully, beware, barely, prepare, compare, square, share, fare, rarely, mare, aware, dare, dare;
• desire, tire, tyre, entire, requirement, hire, firework, esquire, satire, wireless, retired, acquire, inquire;
• core, explore, moreover, restore, store, therefore, score, bore, semaphore, shore, adore.

<table>
<thead>
<tr>
<th>Words and word combinations to be remembered</th>
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<tbody>
<tr>
<td>1) to accommodate – вмещать</td>
</tr>
<tr>
<td>2) capacity – мощность, вместимость, грузоподъемность</td>
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<tr>
<td>carrying capacity – пропускная способность</td>
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<tr>
<td>3) to carry out – выполнять, осуществлять</td>
</tr>
<tr>
<td>4) to control – управлять</td>
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<tr>
<td>control – управление</td>
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<tr>
<td>5) to cost – стоять</td>
</tr>
<tr>
<td>cost – цена, стоимость</td>
</tr>
<tr>
<td>costs – расходы, издержки</td>
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<tr>
<td>6) current – ток</td>
</tr>
<tr>
<td>alternative current (a. c.) – переменный ток</td>
</tr>
<tr>
<td>direct current (d. c.) – постоянный ток</td>
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<tr>
<td>7) to damage – повреждать, причинять ущерб</td>
</tr>
<tr>
<td>damage – повреждение, ущерб</td>
</tr>
<tr>
<td>8) empty – пустой, порожний</td>
</tr>
</tbody>
</table>
9) to ensure – гарантировать, обеспечивать
10) fleet – парк (подвижного состава)
11) to follow – следовать, соблюдать (правила)
12) to heat – отогревать
heating – отопление
13) length – длина, протяженность
14) to install – устанавливать
installation – установка
15) to introduce – внедрять, вводить (в эксплуатацию)
introduction – внедрение, ввод
16) to maintain – эксплуатировать, содержать в технически исправном состоянии; поддерживать
maintenance – содержание в технически исправном состоянии, эксплуатация
17) to protect – защищать
protection – защита
18) to reduce – сокращать
reduction – сокращение
19) safe – безопасный
safety – безопасность
20) surface – наземный, поверхность
21) total – полный, общий, целый
22) therefore – поэтому, следовательно
23) volume – объем

Ex.2. Describe the relationship between the following words (antonyms, synonyms, neither).
1) total/ overall/ all  6) to ensure/ to guarantee 11) to protect/ to produce
2) surface/ underground  7) to install/ to dismantle 12) empty/ full
3) safe/ dangerous   8) increase/ reduction 13) to reduce/ to decrease
4) length/ height/ weight  9) capacity/ power  14) to carry out/ to fulfil
5) to carry/ to carry out 10) to damage/ to destroy 15) to perform/ to implement

Ex.3. Translate the following sentences from English into Russian paying attention to the italicized words.
The total area of the Earth surface is about 500 million square kilometers. 2) New freight transportation rates have been recently introduced in this country. 3) Air-conditioning system in a railway car ensures constant supply of fresh air in hot weather and heating the entire saloon in cold weather. 4) The maintenance cost of a diesel locomotive is three times greater than that of an electric locomotive. 5) The frequency of electric current is 50 Hz in Europe and 60 Hz in the USA. 6) He drove through streets empty of traffic. 7) An impact-resistant windscreen will reduce the risk of injury to the driver in the case of any accident. 8) The damaged ship was being towed into the harbor when the towline broke. 9) The railway line follows the river for several miles. 10) These electric wires are protected by a rubber covering. 11) The task of traffic police is to provide safety on roads. 12) Railway transport is one of the cheapest ways of carrying freight over long distances. 13) If you buy more than 10 books we’ll reduce the cost of each book by 10%. 14) Safety belts can lower the risk of trauma in road accident. 15) I am afraid it isn’t possible to install central heating because your house is too old.
Ex.4. Translate the words given in the box.

| безопасный | вместимость | внедрение | длина | поэтому |
| признанный | общий | расходы | отопление | соблюдать |
| стоимость | уменьшать | устанавливать | часота движения |

*Fill in the blanks with the appropriate words. Be careful with Grammar.*

1) In some countries there are special paths for bicycles which make cycling a ___ means of transport. 2) On this dangerous section of track trains usually ___ their speed. 3) Nowadays electricity is used for lighting and ___ of passenger coaches. 4) After the reconstruction of the railway, the speed of trains will be increased and ___ of the line will be raised. 5) Every driver must ___ the traffic rules. 6) ___ of a better technology will save both time and labor. 7) This equipment should be carried in box cars because it requires ___ against the weather. 8) There is a lot of snow, ___ the trains might be late. 9) This tank has ___ of 40 liters. 10) The ___ station of the Samara Metro is called “Yungorodok”. 11) The ___ length of all railway lines in Russia is equal to three times the ___ of the Equator. 12) The ___ of operating a line depends on the weight of the trains, a number of stops, ___ and other factors. 13) Large electric diagrams showing the routes of trains ___ in the London Underground. 14) Our ___ have doubled in the last five years as a result of the increase in oil prices.

Ex.5. Replace the Russian words by their English equivalents. Be careful with Grammar.

Translate the sentences.

1) You must ___ the speed on slippery roads in winter. 2) The ore ___ from the mine to the processing plant by ship. 3) You need extra ___ in the house – especially during the winter months. 4) The project of the Helsinki-St.Petersburg railway reconstruction envisages ___ modernization and the ___ of the ___ systems and remote control systems. 5) The ___ of the lorry was large enough to hold a motor car. 6) The trains operating on the underground lines are provided with low voltage ___ . 7) The total ___ of the bridge built across the Volga at Saratov is about 2 miles. 8) This automobile can be used as a route taxi because it ___ 10 passengers. 9) The USA ranks first in the world in the ___ of freight traffic. 10) After the reconstruction of this line track maintenance ___ will be greatly reduced. 11) The automatic train ___ facilitates the work of a locomotive driver and ___ more reliable ___ of a train. 12) Both ___ and ___ may be used on electrified railways. 13) New models of lightweight carriages ___ on the Japanese Railways. They consume 50% less ___ than the old models. 14) In the 19th century the railway tunnels were made as small as possible to reduce ___.

Ex.6. Choose the correct word and translate the sentences.

1) Although the gas-turbine engine is smaller and lighter than the diesel engine, it has greater ___.
2) The driver of the bus is responsible for his passengers’ ___.
3) The passengers were informed of the flight’s ___.
4) An experimental undersea telephone cable in the Canary Islands had to be lifted from the ocean floor three times because it was ___ by sharks.
5) This equipment should be carried in a box car for it requires ___ against the weather.
6) Automatic ticket-selling machines are being ___ at the large terminals for the improvement of passenger service.

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7) Fasten your [total; control; protection; safety] belts and don't smoke – the plane is taking off!
8) The telephone lines [installed; ensured; damaged; introduced] in the last night’s storm are being repaired.
9) One trip in the New York subway [costs; accommodates; lasts; carries out] between 85 cents and $2.25
10) People should start and finish work at different time to [reduce; increase; maintain; follow] the peak hour traffic jams.

GRAMMAR REVIEW
(Indefinite, Continuous, Perfect Active and Passive; Participle I, Participle II)

Ex.7. Read and translate the following sentences. State the tense and voice form of the predicates.
1) The Ukrainian government has decided to resume the construction of the metro, which was stopped because of financial difficulties. A lottery is being organized and 40% of its income will be used to fund the work. 2) The newspaper published the article about a brave engine driver who saved the passengers from a bad accident at risk of his own life. 3) The new supersonic aircraft that looks like a rocket will cover the distance between Tokyo and Moscow in less than 2 hours. 4) Steel sleepers are particularly valued in desert and tropical regions because great variations in day and night temperatures do not affect them. 5) Japanese Railways has banned the passengers to use their cellular telephones on its commuter trains. The railway company has recently received a lot of complaints because passengers speaking on their mobile telephones are shouting too loud and disturbing others. 6) It was snowing heavily and I couldn’t make out the number of the tram. When I had covered several tram stops, I realized that I got on the wrong tram. 7) Mr. Davis was very nervous when the airplane was taking off because he had never flown before. 8) I was standing at the tram-stop when it began raining. 9) The water was heated to the boiling point.

Ex.8. TEST. Choose the correct variant of the predicate.
   a) was being used  b) has been used  c) was used
2) This railway tunnel ___ Great Britain with the Continent.
   a) is connected  b) is connecting  c) connects
3) Fuelling stations ___ along the highway at frequent intervals.
   a) situate  b) are situated  c) are being situated
4) I leased another car, while mine ___.
   a) was being repaired  b) is being repaired  c) had been repaired
5) The electrical equipment ___ by a Japanese firm.
   a) will supply  b) will be supplied  c) will have been supplied
6) During peak hours the Metro trains usually ___ with small intervals.
   a) are running  b) are run  c) run
7) The car ___ too fast for me to see the number plate.
   a) was being moved  b) will move  c) was moving
8) The mechanic ___ the wheel by the time we came.
   a) replaced  b) has replaced  c) had replaced
9) The surveying party ___ the route of the future railway all month long.
   a) examined  b) has been examined  c) was examining
10) He quickly forgot everything he ___ at school.
    a) learnt  b) has learnt  c) was learning
11) John ___ for his exam still; he must be tired.
    a) prepares  b) has prepared  c) is preparing
12) When I ___ this watch, everybody warned me against it.
    a) was buying  b) is buying  c) buy
13) She said that the new time-table ___ on the notice-board yet.
    a) was not hung up  b) will not be hung up  c) had not been hung up
14) The secretary ___ by the director to answer the letter without delay.
    a) was asked  b) was asking  c) has asked
15) The computers ___ it is inevitable that the work will be delayed.
    a) don’t work  b) are not working  c) were not working

*The results of the test: If your score is 13-15 correct answers, you are doing just great; 10-12 stand for good knowledge; 7-9 mean you have some problems; if the number of your correct answers is less than 7, go and learn the rules.

Ex. 9. Match the beginning of the sentence on the left with its ending on the right. Pay attention to the Passive Voice.

1) The experiment… a) been held recently?
2) The mail… b) was constructed three hundred years ago.
3) These machines… c) were being looked for everywhere.
4) When can the new equipment… d) will be described in several journals.
5) It’s a pity the concert… e) are often used in professional language.
6) Have any interesting exhibitions… f) is being designed by two well-known architects.
7) Are the orders… g) were built with very simple tools many years ago.
8) If we use the old methods, a lot of time… h) was not recorded.
9) Something important… i) are being tested again.
10) No decisions… j) have been taken yet.
11) This monument… k) was being discussed, so I sat down to listen.
12) Special terms… l) may be wasted and very little be achieved.
13) All these little wooden houses… m) always fulfilled in time?
14) The future terminal… n) is usually brought at 9 a.m.
15) The lost keys… o) be installed?

Ex. 10. Read and translate the following sentences using the predicates in the required tense and voice forms.

1) In Great Britain a first-class ticket [to cost – Present Indefinite Active] 50% more than a second-class ticket.
2) They [to give – Past Indefinite Active] him no explanation why the experiment [to stop – Past Perfect Passive].
3) I [to prefer – Present Indefinite Active] to buy tickets in advance.
4) During the last 5 years traffic on Britain’s roads [to increase – Present Perfect Active] by 27 per cent.
5) The equipment [to deliver – Future Indefinite Passive] in containers from door-to-door.
6) Train fares [to increase – Present Perfect Passive] several times during the past year.
7) The construction of both the bridge and the dam [to complete – Future Perfect Passive] by the beginning of the navigation season.
8) The problem of the old terminal reconstruction \(\textbf{to discuss} – \text{Present Continuous Passive}\) now.

9) The permanent way \(\textbf{to consist} – \text{Present Indefinite Active}\) of rails, sleepers and ballast.

10) The distance between rails \(\textbf{to call} – \text{Present Indefinite Passive}\) the gauge.

11) Be careful! The train \(\textbf{to approach} – \text{Present Continuous Active}\) the station!

12) He appeared on the platform just as the train \(\textbf{to pull out} – \text{Past Continuous Active}\).

13) A.S. Yartsev \(\textbf{to suggest} – \text{Past Indefinite Active}\) using cast iron rails instead of wooden ones in 1788.

**Ex.11. Read and translate the phrases given below into Russian. Pay attention to Participles I in different functions.**

**A**
- the student attending all the lectures
- the bridge linking two islands
- the roads leading to the centre of the city
- the plant producing machinery
- the applicants entering the Academy
- the approaching train
- the shop selling computers

**B**
- beginning the experiment
- using new methods of production
- moving at a high speed
- entering the compartment
- looking out of the window
- writing the telegram
- preparing for the exam in English
- not wishing to discuss this problem
- building the railroad across the desert
- leaving the room
- checking the examination papers
- buying a return ticket

**C**
- having passed all the exams
- having bought the tickets in advance
- having taken the books from the library
- having obtained the necessary data
- having booked the ticket by phone
- having arrived in London
- having discussed the plan in details
- having phoned the travel agency
- having got a snack
- having put our things on the rack
- having returned home
- having received an urgent message

**Ex.12. Translate the phrases given below into English. Pay attention to Participles I in different functions.**

**A**
- прибор, стоящий на столе
- пассажиры, спешищие занять свои места
- работаютый двигатель
- инженер, знающий два иностранных языка
- поезд, прибывающий через 5 минут
- учёные, принимающие участие в конференции
- профессор, читающий лекцию

**B**
- изучающий английский язык
- сдавая вступительные экзамены
- строя мосты и тоннели
- делая домашнюю работу
- не зная, что сказать
- давая совет другим
- путешествуя по всему миру
- не вдаваясь в подробности [\textit{to go into details}]
- испытывая новый двигатель
- переходя улицу
- пытаясь отремонтировать прибор [\textit{to try}]
Ex.13. Analyze the functions of Participles I in the following phrases and complete the sentences.

1) (When) discussing the project…; 2) Scientists discussing the project…; 3) The scientists were discussing the project…; 4) Having discussed the project….

1) Having repaired the engine…; 2) The mechanic repairing the engine…; 3) While repairing the engine….

1) The workers constructing the railway…; 2) Constructing the railway…; 3) Having constructed the railway…; 4) The workers will be constructing….

1) Installing the new equipment...; 2) Having installed the new equipment...; 3) He is installing...; 4) The firm installing this equipment...

1) (While) carrying out the experiment...; 2) The scientists carrying out the experiment....

Ex.14. Read and translate the following sentences paying attention to Participles I.

1) The road joining the two villages is very narrow. 2) Driving a car in the rush hours, you must be very attentive because traffic is very heavy. 3) Having built the world’s first electric locomotive, Werner von Siemens demonstrated it at the Berlin Exhibition. 4) The first Metro trains were driven by steam locomotives which burnt coal, filling the tunnels with smoke. 5) All trains operating on the suburban lines are driven by electricity. 6) Each railway station has at least two tracks, those for the incoming and outgoing trains. 7) Having arrived two days before the conference, he had a lot of time to see London. 8) The number and the spacing of the sleepers depend on the weight of trains passing over the track. 9) The volume of passenger transportation is increased in summertime because many people spend their holidays, traveling all over the country or abroad. 10) They stopped their experiments having obtained the necessary results. 11) Chinese Railways lifted the maximum speed of passenger services to 140 km/h on seven key routes radiating from Beijing (Пекин). 12) Passengers leaving for London were invited to register and weigh their luggage.

Ex.15. Read and translate the following sentences replacing the Russian words by their English equivalents.

1) The Oktyabrskaya Railway offers additional discounts for passengers [путешествующих] to Finland with children under the age of 17. 2) We spent an hour or two, [разговаривая] to our friends. 3) [Построив] the dam, they protected the village against flood. 4) In 1786, William Murdock, an English engineer, constructed a [работающую] model of a small steam locomotive. 5) The journey from London to Norwich (184 km) takes exactly two hours, [включая] stops. 6) [Увидев] the green light, we crossed the street. 7) Freight trains [состоящие] of more than 80 cars are hauled by two locomotives. 8) [Ожидая] for the train arrival, I looked through the
9) The telegram she immediately left for Glasgow.
10) At the stop we saw a lot of people for the bus. 11) Ships are equipped with radar sets to orient at sea. 12) A new road the plant with the railway station is being built now. 13) Our suitcases in the Left-Luggage Room we went to have a snack. 14) The workers were moving from car to car, carefully them.

Ex.16. Form Participles II from the verbs given in brackets and translate the word combinations from English into Russian according to the model.

Model: a [to write] article → a written article (написанная статья)
- the distance [to cover] by the train → the covered distance
- the [to break] engine → the broken engine
- the [to carry out] plan → the carried out plan
- the [to sign] by two companies → the signed by two companies
- freight [to transport] by railways → the transported by railways
- the [to restore] bridge → the restored bridge
- machinery [to produce] at our plant → the produced at our plant
- the [to forget] promise → the forgotten promise
- [to increase] volume of traffic → the increased volume of traffic
- freight [to deliver] two hours ago → the delivered two hours ago
- the [to overrow] bus → the overrowed bus
- the [to fine] for speeding → the fined for speeding
- a new super train [to develop] by Japanese engineers → the developed by Japanese engineers
- the [to increase] volume of traffic → the increased volume of traffic
- a [to force] landing → the forced landing
- the [to overcrowd] bus → the overcrowded bus
- fuel [to use] in jet engines → the used in jet engines
- a train [to control] by an automatic engine-driver → the controlled by an automatic engine-driver

Ex.17. Translate the phrases given below into English. Pay attention to Participles II.

- локомотив, приводимый в движение электричеством
- двигатель усовершенствованной конструкции
- железная дорога, построенная для высокоскоростных пассажирских перевозок
- страхованный [to insure] автомобиль
- отремонтированный [to repair] участок пути
- цифры, упомянутые [to mention] в докладе
- полученный результат
- оборудование, установленное в лаборатории
- вокзал, реконструированный в прошлом году
- груз, используемый для перевозки нефти
- новая станция метро, отделанная [to decorate] мрамором и бронзой
- машина, сконструированная молодым инженером
- экзамены, сданные успешно
- билеты, купленные заранее
- вещи, оставленные в камере хранения

Ex.18. Read and translate the following sentences paying attention to Participles II.
1) The first steam locomotive built by G. Stephenson could draw a small train of loaded cars at a speed of 13 miles per hour. 2) When reconstructed, the railway bridge will be used for the movement of heavy freight trains. 3) The new materials recommended for bridge construction were described in the article written by our professor. 4) I’m not sure that it is possible to repair this badly
damaged car. 5) When drawn by an electric locomotive, the train may consist of more than 90 cars.
6) The first British petrol-driven car called “The Knight” moved at a speed of only 8 miles per hour.
7) The first steam engine invented by James Watt was installed in a machine at a large mine to pump out the water. 8) When heated by sun, the rails become longer. 9) The things left behind by passengers are usually taken to the Lost Property Office. 10) The first Siemens’s electric locomotive built in 1879 was so small that the driver straddled it like a horse but it could haul a train with 30 passengers. 11) During the test run the steam locomotive produced by Peter Cooper raced against a coach pulled by a horse. 12) Signals installed at frequent intervals along the whole mainline inform the engine drivers of the position of other trains. 13) If compared with electric locomotives, diesel locomotives have a higher maintenance cost. 14) Pieces of broken glass were seen everywhere. 15) Before opened for traffic, the railway lines are carefully inspected and tested. 16) The motor coaches are supplied with electric motors placed under the floor of the coach.

Ex.19. Read and translate the following sentences replacing the Russian words by their English equivalents.

1) One day people will be able to communicate by videophones [установленный] in every flat.
2) The engine [изобретенный] by Rudolf Diesel is one of the greatest inventions of the 20th century. 3) A lot of scientists [привезённый] to the conference refused to take part in it. 4) Kerosene is a fuel [используемый] in jet engines. 5) The mechanic said that he had replaced the [сломанный] part of the engine. 6) This engine radically differs both in construction and operation from the engine [разработанный] five years ago. 7) The Disneyland train [назначенный] “The Excursion” was built especially for carrying visitors through the Grand Canyon Diorama. 8) The diesel-electric locomotive has an internal combustion engine [приглашённый] to the driving wheels by electric transmission. 9) The TV set [купленный] a few days ago has broken down. 10) Cascade Tunnel is one of the longest railroad tunnels in the USA [расположенный] in central Washington was built in 1925-29 to replace shorter, more winding tunnel 11) In Japan the communication between some islands is provided through underwater tubes [проложенные] on the sea bottom. 12) The wagons with [изолированные] walls, roofs and floors are known as the refrigerator cars.

Ex.19. Read and translate the following sentences paying attention to –ed forms.

1) The first television set produced quite a sensation in 1939. The first television set was produced in 1939. The first television set produced in 1939 was a tiny nine-by-twelve inch box. 2) The new car model developed by our student design bureau will be shown on TV. The new car model was developed by our student design bureau. The new car model developed a speed of 50 miles an hour. 3) The trains equipped with robot engine drivers operate on some underground lines. 4) The talks between these two presidents were conducted behind the closed doors. 5) The car suddenly stopped in the middle of the road. 6) The gas station on the highway was closed. 7) All the necessary information is stored in the computer. 8) When invented, the steam engine started the industrial revolution. 9) Toyota Co., a very successful Japanese company, has increased their sales to six million cars and trucks a year. 10) One of the main advantages of the diesel loco is the low cost of the fuel consumed. 11) Though conducted with great care, the test did not give the expected results. 12) New technologies reduce the number of workers needed. 13) Though first developed for military purposes, radar can be used in modern cars. 14) Most of the goods produced by this factory are exported. 15) He bought a used car, which broke down the next day. 16) The French military engineer Cugnot constructed the first three-wheeled machine equipped with a two-cylinder steam engine. This machine carried two people at a walking pace. 17) When asked why she had missed the train, she said something about her watch being slow.
Ex. 20. TEST. Choose the right variant.
1) The cause of the accident was a ___ brake shoe.
   a) breaking    b) broken    c) having broken
2) ___ their tests students handed them in.
   a) completing  b) completed  c) having completed
3) Special signals ___ along the railroads help enginemen drive trains without accidents.
   a) installing   b) installed   c) having installed
4) You can find the telephone number of a specialist ___ computers in any newspaper.
   a) repairing    b) repaired   c) having repaired
5) The plant ___ automobiles was built in our city 50 years ago.
   a) producing    b) produced   c) having produced
6) The typewriter ___ a few days ago has gone wrong.
   a) buying      b) bought     c) having bought
7) ___ all the money he started looking for work.
   a) spending    b) spent      c) having spent
8) If ___ alone, the dog could spoil many things at home.
   a) leaving     b) left       c) having left
9) About 80 million passengers are ___ by the Kuibyshev Railway annually.
   a) carrying    b) carried    c) having carried
10) When ___ the street, be careful at the crossroads.
    a) crossing    b) crossed    c) having crossed
11) Sleeping cars ___ with an air-conditioning system are very comfortable for long-distance
    travel.
    a) equipping   b) equipped   c) having equipped
12) They spent the whole day, ___ the equipment.
    a) packing     b) packed     c) having packed
13) The number of cars ___ a passenger train is much less than that of a freight train.
    a) forming     b) formed     c) having formed
14) An unusual locomotive ___ for the movement on ice was developed in Great Britain in the
    18th century.
    a) building    b) built      c) having built
15) This unusual locomotive was sent to Russia for the transportation of freight on sledges
    across ___ lakes.
    a) freezing    b) frozen     c) having frozen

*The results of the test: If your score is 14-15 correct answers, you are doing just great; 11-13 stand
for good knowledge; 8-10 mean you have some problems; if the number of your correct answers is less than 8, learn the rules.

Ex. 21. Match the two parts of the sentences below. Pay attention to Participles.
1) When speaking English, a) we left the exhibition.
2) Having remembered suddenly that b) I felt the change in the atmosphere
she had not locked the door, at once.
3) CAV – is a British firm c) unless pressed by time.
4) They were speaking d) if needed.
5) He never hurries, e) I often make mistakes.
6) Having entered the room f) through the locked door.
7) Seeing nothing there that could interest us, g) she rushed back home.
8) Here is my address where I can be found h) producing diesel engines.
9) One should be very careful i) trying to repair his car.
10) He wasted the whole afternoon, j) when crossing the street.
1) Having passed the last exam, a) when driving.
2) The plane flying at a great speed b) if allowed.
3) When giving advice to others, c) he’ll tell you a lot of interesting things about his life in England.
4) The destroyed bridge d) he began to look for a job.
5) Not knowing where to go e) my car hit a lamp post.
6) I shall certainly help you with it, f) I turned to the passer-by.
7) He is very attentive g) was soon reconstructed.
8) Having packed our suitcases, h) leaves behind a stream of white smoke.
9) While turning a corner at a high speed i) think whether you would follow it yourself.
10) If asked, j) we hired a taxi and hurried to the airport.

Ex.22. Say whether the right Participles are used in the following sentences. Correct the wrong ones. Be very attentive!

1) We were walked down the path leading to the station. 2) Don’t forget to oil the moving parts of the machine regularly. 3) Having missed the 10 o’clock train, he had to send a telegram to his friends waited for him. 4) The porter went in, carrying two suitcases. 5) It is impossible quickly to stop the train moving at such a high speed. 6) Worked as a clerk, painter and bus driver, Neil decided to go back to University. 7) Refrigerator cars are used for the transportation of freezing meat and other perishable commodities. 8) The received information was not correct. 9) When commenting on the recent developments in the Middle East, the correspondent presented a number of interesting facts. 10) Tank cars having transported gas or cement should be made of aluminum or stainless steel. 11) All the computers installed at our office were produced in Japan. 12) The Toyota Co. has recently deciding to spend $800 million a year on the development of the new electric automobile. 13) While crossed the street, I saw an accident. 14) When typing the article, she tried to be very attentive. 15) The plane had to make a forcing landing. 16) The Internet is a global computer network having millions of users all over the world. 17) They experimented with the device, not known that it was out of order. 18) Having taken the wrong bus, Tony found himself in an unfamiliar town.

TEXT A

Before reading and translating the text match the Russian equivalents to the English word combinations (do it in written form).

UNDERGROUND RAILWAYS

<table>
<thead>
<tr>
<th>English expression</th>
<th>Russian equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>air contamination</td>
<td>верхнее строение пути</td>
</tr>
<tr>
<td>broken stone ballast</td>
<td>щебёночный балласт</td>
</tr>
<tr>
<td>danger of flooding</td>
<td>бетонная основа</td>
</tr>
<tr>
<td>concrete base</td>
<td>подземный переход</td>
</tr>
<tr>
<td>cut-and-cover method</td>
<td>наземная железнодорожная линия</td>
</tr>
<tr>
<td>elevated railway line</td>
<td>подземная железнодорожная линия</td>
</tr>
<tr>
<td>ground-based railway line</td>
<td>надземная железнодорожная линия (на эстакаде)</td>
</tr>
<tr>
<td>permanent way</td>
<td>конечная станция</td>
</tr>
<tr>
<td>remote control</td>
<td>сооружение</td>
</tr>
<tr>
<td>structure</td>
<td>туннельный щит</td>
</tr>
<tr>
<td>subsurface railway line</td>
<td>открытый метод строительства</td>
</tr>
<tr>
<td>to take a shortcut</td>
<td>деревянная обшивка (опалубка)</td>
</tr>
</tbody>
</table>
Part 1

Depending on where in the world it is located, an underground electric-railway system may be
called a subway, underground railway, tube, or metro. The underground railway is the quickest,
safest, most reliable and comfortable means of city transport. Metro can solve the problems of
carrying a great number of passengers within urban and suburban areas as well as the problems of
traffic jams, air contamination and noise.

Subways are usually built under city streets, but in order to take shortcuts they often must pass
under rivers. From the technical point of view the underground railway system is very expensive
and complicated constructional work. This system includes subsurface lines, ground based lines and
elevated lines. Ground based lines are usually used at the terminations of the underground railways.
Outside the immediate downtown area, the subway lines usually emerge above ground too,
resembling conventional railways or elevated transit lines. Besides, the underground and surface
structures involve stations, tunnels, escalators, underpasses, ventilation and sanitary engineering as
well as a power supply system.

The permanent way of underground railways differs from the normal railway track. The sleepers
are only 0.9m long. They are shorter than those of the railroad track which are 2.7m long. The
sleepers of the normal track are laid upon ballast made of broken stone or other materials. The
crossties of the underground railway are laid directly on concrete base. It is more expensive but
keeps air free from dust. If the ballast were made of slag, gravel, sand or even broken stone, the train
would be followed by the dust clouds.

Modern Metro trains are powered by electricity. The current is obtained from the third rail. This
contact rail is laid along the whole track and transmits the direct current of 825 volts to the train
electromotor through the pantograph.

The Underground carrying capacity depends on the number of coaches which ranges from 2 to 8
per train and the frequency of train running which ranges from 80 seconds to 10 minutes.

Part 2

Nowadays there are underground railways in 80 cities all over the world. The construction of the
first subway system, called the Metropolitan Railway, began in London in 1860. It was built by the
so-called cut-and-cover method—that is, trenches were dug along the streets, reinforced with brick
sides, and roofed with girders or a brick arch. The roadway on top was then restored. The
Metropolitan line was opened on January 10, 1863. It used steam locomotives, not electric power.

In 1866 excavation began for a second subway line of the London Underground. It was built
using a device called a tunneling shield that allowed a tunnel to be driven under the Thames River
without the danger of flooding. The tunnels were driven deep enough to avoid disturbing public-
utility works, or the foundations of buildings, and there was no disruption of street traffic. The
Tube—the first electric underground railway—began operation in 1890.

In the same decade, many other cities followed London’s lead. In Budapest an electric subway
was opened in 1896 that used single cars with trolley poles. It was the first subway on the European
continent. Because the tunnels were flat-roofed instead of arched, the original trenches were
shallower than those of earlier lines. As a result, the subway construction was far less costly.

In Paris, construction of the Métro (Chemin de fer métropolitain de Paris) was begun in 1898,
and the first 6 1/4 miles (10 kilometers) were opened in 1900. Its rapid construction was made
possible largely by improved cut-and-cover methods. Vertical shafts were sunk at intervals along the
planned route, and from these shafts side trenches were dug. Masonry foundations to support
wooden shuttering were then placed immediately under the road surfaces. Construction of the roof arch then proceeded with little disturbance to street traffic. This method is still used in Paris.

In the United States the first practical subway line was constructed in Boston between 1895 and 1897. On October 27, 1904, New York City opened the first section of what was to become the largest subway system in the world. Other cities with notable subway systems include Philadelphia and Chicago in the United States; Toronto and Montreal in Canada; Mexico City, Mexico; Buenos Aires, Argentina; Munich and Frankfurt am Main in Germany; Milan, Italy; Cairo, Egypt; and Tokyo, Kyoto, Osaka, and Nagoya in Japan. The shortest metro line was constructed in Turkey. Its length is only 600 m but Istanbul is very proud of the metropolitan means of transport.

A number of major modern cities have a combination of subway and elevated railways. In addition, some have automatic trains that are operated by remote control. Lines that use automated trains include a section of the London subway system, the Victoria Line; BART (Bay Area Rapid Transit) in the San Francisco Bay area; and the Washington, D.C., Metro. Greater attention is also paid to the aesthetics, comfort, safety, and convenience of subways, particularly those in Moscow and Rome.

**Ex.23. Answer the following questions.**

1) What is the quickest means of city’s transport? 2) Why is it necessary to construct Underground railways in large cities? 3) Why is the construction of underground railway system a very expensive and complicated engineering process? 4) What is the difference between the permanent way of underground railroads and ground-based railway tracks? 5) Why is there no ballast on the underground railways? 6) Are Metro trains powered by steam or electricity? 7) Where is the current obtained from? 8) What does the Underground carrying capacity depend on? 9) How many cities of the world have already built the Underground railways? 10) Where was the first underground railway line laid down? 11) What city has the largest subway system in the world? 12) What is the length of the metro line in Istanbul?

**Ex.24. Match the beginnings of the sentences with their endings.**

1) In the USA the first subway line was constructed… 2) The second underground line in London… passed… 3) The shortest Metro line in the world was built… 4) Electric single cars with trolley poles were used… 5) In Paris the construction of the first Metro line lasted… 6) The first underground system in the world was called… 7) The Moscow and Rome Metros are justly famous for… 8) New York has… 9) Automated trains that are operated by remote control are used… 10) Constructing tunnels under the rivers, builders use…

a) the Metropolitan railway. b) on the Victoria line of the London Underground. c) clean and attractive stations. d) the largest subway system in the world. e) in the Budapest Subway. f) in Boston between 1895 and 1897. g) in Istanbul. h) under the Thames River. i) two years. j) a device called a tunneling shield that protects a tunnel against flooding.
Ex. 25. Here are the answers. Write the questions.

1) Subsurface lines, ground based lines and elevated lines. 2) Under city streets or under rivers.
3) Only 0.9m long. 4) Directly on concrete base. 5) From the third rail. 6) In 80 cities all over the world.
7) The cut-and-cover method. 8) On January 10, 1863. 9) In Budapest. 10) In Moscow and Rome.

TEXT B

Read and translate the text.

LONDON UNDERGROUND

Part 1

The underground railways as a kind of city transport appeared in the second half of the 19th century. The first underground system was proposed by Charles Pearson in 1843. Twenty years later the first line of the London Underground was opened for traffic. Its length was almost four miles. On that first historic day 30,000 Londoners made the first underground railway travel in the world.

In the early days, the trains were driven by steam locomotives which burnt coal, filling the tunnels with smoke. It is said that the train staff and porters asked for a permission to grow beards and moustaches – as an early form of smog mask. The tunnels of the first underground were made as small as possible in order to reduce the construction costs. The coaches themselves were small and narrow.

According to Pearson’s project all lines were laid down close to the ground surface. The deep tunneling came later, in 1890. Constructing the tunnel through miles of clay, sand and gravel is no easy task, and it was James Henry Greathead who developed the method which made the construction of most London tunnels possible. One of the longest continuous tunnels in the world is the 17½ mile tunnel on the Northern line. The first escalator was also installed in the London Underground in 1911.

During the World War II the London Underground served as a shelter for thousands of Londoners. Many British Museum treasures spent the war in the tunnels of the Underground. The railways were prepared for any emergency that might occur. They had duplicate control systems, repair groups, duplicate power supply and so on. To minimize the danger of flooding the underground near the Thames, isolating doors were built in the tunnels. All the trains were equipped with special reduced lighting for using on open sections of track.

Part 2

Nowadays the London Underground (it is often called the Tube) is the most popular means of city transport because it is relatively cheap, convenient, quick and safe. Its length is about 400 km. Every day the Tube carries over 2.5 million passengers. The total number of passengers carried by the Underground each year is enormous and it is constantly growing.

In the London Metro there are 11 underground lines, each of them has got its own color. For example, the lines are called: Central (red), Circle (yellow), East London (orange), Metropolitan (dark brown), Northern (black), Victoria (light blue) and so on.

Only half of the trains go under the ground, new lines that connect London with its suburbs go over the ground. On such routes express trains are operated. They stop at a very few stations on their way that is very convenient for those people who live in the suburbs but work in the center of London.

There are 275 stations in the London Metro. Most of them are old and not attractive to the eye. The walls are simply white or gray plastered with all kinds of advertisements. Numerous stations which are rather deep under the ground are equipped with escalators. About 200 escalators can carry 10,000 passengers an hour at maximum speed. The longest one is at the station “Leicester Square”, its length is over 80 feet. On long escalators the speed is changeable. The “up” escalator runs at full
speed when carrying passengers but when empty it moves at half speed. It is known that traffic is left-hand in Britain, but when passengers get on the escalator they stand on the right. People who hurry can run by on the left, and it seems that everybody in the Underground always hurries.

The atmosphere «underground» is considered even better than that outside. There are special pumps and fans that suck in the air from the street, purify it, and make it warm or cool on its way to the station. The air in the Underground is changed every quarter of an hour, and the temperature all year round is maintained at 69-79 degrees Fahrenheit.

The fare in the London Underground depends on the distance you travel, but the lowest is 50 pence. Tickets can be bought in the booking offices but for short journeys that cost a few pence, tickets can be obtained from automatic machines.

Safety was always one of the main concerns of the London transport. In spite of the fact that trains often follow each other within 1-3 minutes, it is said that the London Underground is the safest form of transport in the world. The most up-to-date electronic equipment is used for controlling train movement: if changes are necessary, they are made automatically and with lightning speed. No accident can happen because of human errors.

Ex.26. Answer the following general questions.


TEXT C

Read and translate the text.

MOSCOW UNDERGROUND

For the first time the idea of building the underground railway in Moscow was discussed before the revolution. But the construction of the first section (from Sokolniki to Central Park) was initiated only in 1932. The length of this line was 11 kilometers. The construction lasted 3 years and it was called the record period of time by the world press. The Russian engineers carefully studied the existing underground systems abroad before working out their own project, which represents a significant improvement on the London system.

The engineering difficulties were great mainly because much of the soil was composed of running sand. Fortunately most of the running sand lay close to the surface, therefore it was found possible to use out-and-cover method of construction under many streets. But in the center of the city where the line is 100 ft or more deep, the construction of tunnels was necessary.

The Moscow Underground consists of a circle line, which runs round the city center, several radial lines crossing the city and connecting with each other and the lines running to the countryside. Some constructional work is still going on. Now the length of the underground lines reaches about 300 km.

At present the Moscow Metro handles more than 5 million passengers each day. During peak hours trains run at a speed of 90 km per hour with the intervals of about 80 seconds. One train takes up to 1,500 passengers. For greater safety of travel all trains are inspected every 6-9 hours of running. Being in operation for about 13 hours daily each metro train covers the distance equal to
that from Moscow to St. Petersburg. The trains servicing the Underground are supplied with low voltage direct current. The current is obtained from the third rail by special devices that are mounted beneath the motor coaches. Rolling stock is completely replaced approximately once every four years.

The Moscow Metro can compete with the underground railways in any of the European capitals in level of automation. At present experiments are being conducted with an “automatic driver”, i.e. with computer-controlled trains. The computer devices will help to relieve the nervous strain on the drivers and make it possible to increase the cruising speed of trains even more. These automatic devices have already been tested over the Circle Route by way of experiment. The Moscow Metro is justly famous for clean and attractive stations and for good service of riders at rather low fares.

Notes: running sand – сыпучий песок, пльзун
“cruising speed” – эксплуатационная скорость

Ex.27. Answer the following general questions.
1) Was the possibility of constructing Metro in Moscow discussed before the revolution for the first time? 2) Did the building of the Moscow Underground begin in 1917? 3) Does the project of the Moscow Metro represent a significant improvement on the London Underground system? 4) Was the out-and-cut method the most suitable one to construct the Moscow Underground? 5) Does the Moscow Metro consist of a circle line and 2 radial ones? 6) Is the construction of the Metro still going on? 7) Do Metro trains run with the intervals of about eight minutes during peak hours? 8) Are all trains inspected for greater safety of travel every week? 9) Can the Moscow Metro compete with the underground lines of other countries in level of automation? 10) Will an “automatic driver” replace hard engine driver’s labor in future?

Ex.28. Compare the Moscow and London Undergrounds. Complete the sentences and answer the questions.
1) The first line of the Moscow Metro was opened for public traffic in … . What can you say about the London Underground?
2) The length of the first underground line in Moscow was … . What about the London Underground?
3) The trains in the Moscow Metro are driven by … . What do you know about motive power in the London Underground?
4) The total length of Metro lines in Moscow is … and it has about 160 stations. What about the London Underground?
5) All the deep stations of the Moscow Metro are equipped with … and their speed is unchangeable (about 30 meters per minute). What can you say about the London Underground?
6) In Moscow when the passengers get on the escalator they stand … so that people who hurry up or down the escalator can run by … . As you know, in Great Britain there is left-hand traffic. What about London escalators?
7) All the stations of the Moscow Metro are different in architectural design and are decorated with bronze, marble, aluminum and glass. They are attractive to the eye and … . What information do you have about the stations of the London Underground?
8) At present fare in the Moscow Metro doesn't depend on … but the management of the Metro plans to change the system of paying. What have you learnt from the text about the fare in the London Underground?

Ex.29. True or false? Correct the false statements.
1) The Moscow Metro is the oldest underground in the world. 2) The London Underground was put into operation in 1963. 3) The construction of the Moscow Metro began before the October Revolution. 4) The London Underground carries 10 million passengers a day. 5) In the Moscow Metro
steam locomotives are used for pulling trains. 6) Escalators move only up. 7) The first escalator in the world was installed in the London Underground in 1912. 8) The length of escalators is the same at all stations. 9) Fare in the Moscow Underground is 200 dollars. 10) There are 20 stations in the London Underground. 11) Samara has the largest subway system in this country. 12) Airplanes are the fastest and the most reliable means of city's transport. 13) In winter it is very cold in Metro trains because there is no heating system in them. 14) Nowadays Metro trains are drawn by three horses. 15) Traffic frequency in the London Underground is one train per hour. 16) The speed of Metro trains reaches 10 km/h. 17) One carriage of a Metro train can accommodate 5,000 passengers.

Ex.30. Translate the following text from Russian into English (do it in written form).

МЕТРО В САМАРЕ

Метрополитен в нашем городе начал работать в декабре 1987 года. Именно в то время первая линия метро (от станции Юнгородок до станции Победа) была пущена в эксплуатацию. Вторая линия метро была открыта для движения в 1993 году. Общая протяженность линий метро составляет приблизительно 20 км. Самарское метро имеет восьмь станций – одну наземную и семь подземных. Планируется пустить в эксплуатацию ещё одну станцию в 2005 году. Частота движения – 10 поездов в час. Каждый поезд состоит из четырех вагонов. В вагонах установлены современные системы отопления, освещения и вентиляции. Скорость движения поездов достигает 90 км/ч. Для удобства пассажиров на нескольких глубоких станциях установлены эскалаторы. Плата за проезд не зависит от расстояния. Некоторые категории пассажиров, такие как ветераны, дети до семи лет могут ездить в метро бесплатно. Школьники могут купит 'сезонку'. Метро очень популярный вид транспорта в нашем городе, и его строительство продолжается.

LESSON FIVE

MODERN RAILWAYS

Ex.1. Practice the reading.
 ► i before nd, gh, gn, ld
 - mind, human-kind, behind, find, highly, light, delight, highway, sight, might, tight, frighten, flight, alignment, design, sign, wild, mad.
 ► o before n, v, m, th
 - front, among, money, won, ton, month, tongue, wonder, none, glove, above, cover, dove, lovely, some, company, accompany, other, another, nothing;
 - BUT: move, prove, improve, approve, involve
 ► a before consonant
 - talk, already, also, call, alter, always, salt, almost, alternative, walk, although, bold.

<table>
<thead>
<tr>
<th>Words and word combinations to be remembered</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) amount — количество, сумма</td>
</tr>
<tr>
<td>2) to arrange — устраивать, организовывать;</td>
</tr>
<tr>
<td>3) to brake — тормозить</td>
</tr>
<tr>
<td>brake — тормоз</td>
</tr>
<tr>
<td>4) considerable — значительный</td>
</tr>
<tr>
<td>5) to cause — быть причиной, вызывать, причинять; заставлять</td>
</tr>
<tr>
<td>cause — причина, повод</td>
</tr>
<tr>
<td>6) to create — создавать, проектировать, разрабатывать</td>
</tr>
<tr>
<td>7) customs — таможня</td>
</tr>
</tbody>
</table>
8) **customer** – клиент, заказчик
9) **curve** – кривая, кривой участок пути; поворот
10) **to deliver** – доставлять
   *delivery* – доставка
11) **device** – устройство, прибор
12) **to employ** – использовать; нанимать (на работу)
   *employee* – служащий, работник
   *employer* – наниматель, работодатель
13) **to enable** – позволять, давать возможность
14) **grade** – уклон, подъём
   *steep grade* – крутой уклон (подъём)
15) **to handle** (traffic) – осуществлять (перевозку), перевозить
16) **to insure** – страховать
   *insurance* – страхование
17) **liquid** (goods) – наливные грузы
18) **to measure** – измерять
   *measure* – мера
   **to take measures** – принимать меры
19) **moreover** – более того
20) **quality** – качество
21) **to pass** – проходить, проезжать
22) **reliable** – надёжный
23) **to repair** – ремонтировать
   *repair* – ремонт
24) **schedule** – расписание
25) **to ship** – отправлять
   *shipment* – отправка
26) **tilting train** – скоростной поезд
27) **turnover** – оборот
   *freight turnover* – грузооборот
   *passenger turnover* – пассажирооборот
28) **to upgrade** – реконструировать
   *upgrading* – реконструкция
29) **valid** – действительный

**Mind the prepositions**
1) **to arrange** with somebody about something
2) **to be engaged** in (doing) something
3) **to take measures** against something/ somebody
4) **to insure** something against something
5) **to make** of something
6) **on** schedule
7) **instead of** (doing) something

**Ex.2. Describe the relationship between each of the following words (antonyms, synonyms, neither).**

1) **curve** / **straight**
   2) **to ensure**/to **insure**
   3) **device**/ **apparatus**
   4) **employee**/ **employer**
   5) **amount**/ **quantity**
   6) **customs**/ **customer**
   7) **to employ**/ **to apply**
   8) **liquid**/ **solid**
   9) **to arrange**/to **organize**
   10) **aim**/ **purpose**/ **objective**
   11) **cause**/ **reason**
   12) **to upgrade**/ **to reconstruct**
   13) **to enable**/ **to allow**/to **permit**
   14) **to create**/ **to develop**
   15) **reliable**/ **unreliable**
   16) **to repair**/ **to prepare**
   17) **schedule**/ **timetable**
   18) **to try**/ **to attempt**
   19) **upgrading**/ **grade**
   20) **considerable**/ **insignificant**
   21) **to ensure**/ **to guarantee**
   22) **grade**/ **gradient**
   23) **curve**/ **bend**/ **turn**
   24) **valid**/ **invalid**

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Ex.3. Match the English words and phrases with their Russian equivalents.

<table>
<thead>
<tr>
<th>English</th>
<th>Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) rail joint</td>
<td>a) диспетчерская централизация</td>
</tr>
<tr>
<td>2) flood</td>
<td>b) знакомый звук</td>
</tr>
<tr>
<td>3) CTC (Centralized Traffic Control)</td>
<td>c) космический спутник</td>
</tr>
<tr>
<td>4) space satellite</td>
<td>d) наводнение</td>
</tr>
<tr>
<td>5) alloy</td>
<td>e) рельсовый стык</td>
</tr>
<tr>
<td>6) to eliminate</td>
<td>f) ремонтная мастерская</td>
</tr>
<tr>
<td>7) familiar sound</td>
<td>g) сплав</td>
</tr>
<tr>
<td>8) repair shop</td>
<td>h) устранить</td>
</tr>
</tbody>
</table>

Translate the following sentences from English into Russian. Fill in the blanks with the appropriate words or phrases. Consult the box. Be careful with Grammar.

1) New track machines bought from Great Britain by Mozambique will be used for upgrading the Limpopo line in that country. 2) The car was badly damaged in the accident and was taken to ___. 3) Special cars must be used for transporting oil and other liquid goods. 4) All measures must be taken to ensure a safe operation of trains in tunnels. 5) Lloyd’s is one of the world’s largest insurance companies. In this company one can [могу] insure not only an airplane or ___ but also a football player’s legs or a pianist’s hands. 6) Computers provide quick communication of information; moreover they help ___ considerable amount of paperwork. 7) Carriage wheels, when passing over ___, produce ___ “click-etty-click”. 8) Each one of your suitcases will be checked when you go through the customs. 9) Having used ___ instead of steel the designers reduced the cost of the device. 10) ___ has caused considerable damage to the railway track. 11) With the introduction of ___ the safety of railway operation has been considerably increased. 12) Weather changes are often caused by cyclones and anticyclones. 13) Don’t brake too suddenly when there is ice on the road. 14) Tourism is an important industry employing thousands of people. 15) The city of Crewe is one of the busiest junctions in England; many railway lines pass through it.

Ex.4. Choose the proper word and translate the sentences.

1) The [repair; employer; device; customers] required further improvement.
2) Thanks to new cars with greater capacity the freight [repair; turnover; insurance; quality] will be increased.
3) Unfortunately the damaged car was not [insured; used; employed; created].
4) When the engine-driver saw the truck, he [increased the speed; insured the train; tried to brake; delivered freight in time], but it was too late.
5) Since the tape recorder is still under guarantee, I think, I won’t have to pay for the [repairs; delivery; customs; upgrading].
6) Where can I [sell; repair; ship; insure] my broken watch?
7) Tank cars are used to transport [automobiles; passengers; mail; liquid goods].
8) You should fill in your [customs; reliable; insurance; customer] declaration.
9) This [customer; measure; brake; curve] is very steep and dangerous. Be careful!
10) The post office [insures; delivers; arranges; works out] a considerable amount of letters each day.
11) [Tilting; freight; long-distance; commuter] trains pass curves at a high speed.
12) In some companies [employers; customers; passengers; employees] are not allowed to use the Internet for personal purpose during business hours.
13) The maximum train speed on the West Coast railway line (Great Britain) is 77 miles per hour but there are many sections where the speed is much lower because of [schedule; curves and steep grades; repair works; the weather].

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14) The flood [ensured; insured; arranged; caused] millions of dollars worth of damage on the island.

15) The problem of how to stop long trains quickly, smoothly, and safely was not solved until the invention of the air [cushion; brake; plane; conditioner] by George Westinghouse in 1869.

Ex.5. Read and translate the sentences replacing the Russian words by their English equivalents. Be careful with Grammar.

1) The equipment [производимый] by our plant is of high [качество] 2) I am not sure that it is possible to [отремонтировать] this badly damaged car. 3) Tickets are [действительный] for one day only. 4) An undetected defect [быть причиной] an accident. 5) According to the [таможня] regulations passengers are not allowed to carry more than ten packages of cigarettes. 6) [Использовать] modern technology we [увеличивать] service life of our equipment, [более того] we [уменьшать] its price. 7) When does this train [прибыть]? – According to the [расписание] it is due to arrive at 12.30 but because of track repair work, it is being delayed. 8) [Грузооборот] was reduced [из-за] a [значительный] increase in transportation [стоимость]. 9) [Проходя] the curve high speed train need not decrease its speed. 10) There are practically no [кривые участки пути] and [крутые подъёмы] on the Paris-Lyon high-speed route. 11) The underground railway is the quickest, [самый безопасный], [самый надёжный] and comfortable means of city transport. 12) The car couldn’t stop because its [тормоза] were not working.

Ex.6. Fill in the blanks with the prepositions if necessary and translate the sentences. Consult the box.

1) The engine-driver’s cab is equipped ___ new signaling devices. 2) The traffic police took drastic measures ___ drivers breaking the traffic safety rules. 3) The insurance company will pay ___ the damaged car. 4) The train cannot move ___ the same speed along the whole route ___ curves and up-grades. 5) The double-track railways are more convenient than single-track railways because the trains need not wait ___ the other trains to pass. 6) It was proposed to upgrade the existing railway track for high-speed movement ___ building a new one. 7) The heavy traffic ___ this section ___ track caused considerable delays ___ trains. 8) In some European countries tank wagons made ___ reinforced [армированный] plastics are used for carrying wine and fruit juices. 9) Any freight can be insured ___ damage and burglary. 10) This railway company is engaged ___ arranging freight service ___ large-tonnage containers.

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<thead>
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<tbody>
<tr>
<td>of [3]</td>
<td></td>
<td></td>
<td>on</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

GRAMMAR REVIEW
(Gerund; attributive groups)

Ex.7. Translate the following sentences paying attention to Gerund as a subject (on the left) and Participle I as an adverbial modifier (on the right).

• Reading is to the mind what exercise is to the body.
⇒ ▫ Reading books we come to know many useful and interesting things.
• Setting the problem is the first step to its solution.
⇒ ▫ Setting a problem the scientist makes the first step to its solution.
• Learning a foreign language is a long and slow process that takes a lot of time and patience.
⇒ ▫ Learning a foreign language you learn the culture and history of the country where this language is spoken.
Learning a foreign language requires working regularly.
Constructing railways took much time before the invention of a track-laying machine.
Smoking is forbidden in most public places in the United States.
Planning your work is necessary if you want to succeed at the Institute.
Watching television too close or for a too long time is dangerous for your eyes.
Traveling abroad has become now much easier and cheaper than ever before.

Ex.8. Memorize the verbs and word combinations requiring gerunds.

<table>
<thead>
<tr>
<th>to begin/to start</th>
<th>to think of</th>
</tr>
</thead>
<tbody>
<tr>
<td>to go on/to keep on</td>
<td>to dream of</td>
</tr>
<tr>
<td>to stop/to finish</td>
<td>to hear of</td>
</tr>
<tr>
<td>to enjoy/to like/to be fond of</td>
<td>to decide against</td>
</tr>
<tr>
<td>to hate/to dislike</td>
<td>to prevent from</td>
</tr>
<tr>
<td>to need/to require/to want/try</td>
<td>to result in</td>
</tr>
<tr>
<td>to stop/to finish</td>
<td>to risk</td>
</tr>
<tr>
<td>to remember/to recall</td>
<td>to look forward to</td>
</tr>
<tr>
<td>to mind</td>
<td>to object to</td>
</tr>
<tr>
<td>to suggest</td>
<td>to avoid</td>
</tr>
<tr>
<td>to avoid</td>
<td>to be afraid of</td>
</tr>
<tr>
<td>to insist on</td>
<td>to be capable of</td>
</tr>
<tr>
<td>to excuse for</td>
<td>to be engaged in</td>
</tr>
<tr>
<td>to think about</td>
<td>to be surprised at</td>
</tr>
<tr>
<td>to thank for</td>
<td>to be good at</td>
</tr>
<tr>
<td>to congratulate on</td>
<td>to be worth</td>
</tr>
</tbody>
</table>

A. Translate the following sentences paying attention to the verb + gerund constructions.

1) They kept on talking though the band began playing. 2) I avoided speaking to them about that matter. 3) Try to avoid drinking unboiled water. 4) I can’t insist on your staying a little longer because you risk missing the last train. 5) I can’t help thinking of it. 6) Would you mind my leaving for a few minutes? 7) Would you mind my joining the discussion? 8) Who is responsible in your company for taking the most serious decisions during the talks? 9) Have you ever dreamed of earning a million dollars? 10) I’d like to thank you all for coming here today. 11) You should stop promising things you are unable to do. 12) He decided against calling her again. 13) I suggest holding another meeting next week. 14) I didn’t remember meeting her before but I pretended I knew her. 15) Why did they postpone discussing this project for an indefinite time? 16) She likes giving advice to other people. 17) Why does he object to signing the contract with this firm? 18) A heavy rain prevented the fire from spreading. 19) I can’t help being grateful to him for all he has done for me. 20) I live only a short way from here, so it is not worth taking a taxi to get home. 21) I don’t mind going by bus but I hate standing if there are a lot of people; it is better to go by Metro.
B. Fill in the gaps with the prepositions and gerunds formed from the verbs given in the box.

<table>
<thead>
<tr>
<th>to answer</th>
<th>to install</th>
<th>to lose</th>
<th>to finish</th>
<th>to fly</th>
<th>to go</th>
<th>to help</th>
</tr>
</thead>
<tbody>
<tr>
<td>to see</td>
<td>to show</td>
<td>to take part</td>
<td>to make</td>
<td>to pass</td>
<td>to take up</td>
<td>to test</td>
</tr>
</tbody>
</table>

1) She has been dreaming ___ to the Bahamas. 2) I insist ___ your ___ the new automobile to us. 3) She decided ___ in the conference. 4) We thanked the porter ___ his ___ us with our luggage. 5) Weather conditions prevented them ___ their work on time. 6) The constructor insists ___ our ___ the device under operating conditions. 7) I don’t usually carry my passport with me because I’m afraid ___ it. 8) Excuse me ___ not ___ your ___ your letter. 9) I haven’t heard ___ the schedule of this commuter train. 10) Everybody congratulated her ___ the exam so well. 11) The noise in the next room prevented me ___ 12) I’m thinking ___ another trip to Italy. 13) We are looking ___ new computers in our office. 14) The rain prevented him ___ to the country. 15) Excuse me ___ so much of your time. 16) He finished the letter with the words “I am looking ___ you in Moscow next summer”. 17) He insisted ___ for the meal.

C. Choose the correct verb and translate the sentences.

1) All the students ___ enjoying; began; looked forward to ___ working harder in the weeks before the examinations. 2) She ___ avoids; forgets; dreams of ___ expressing her opinion in public. 3) She ___ prevented from; excused for; couldn’t help ___ laughing at his jokes. 4) Do you ___ go on; mind; postpone ___ my airing the room? 5) She ___ risks; is ready for; postpones ___ losing everything if she follows his advice. 6) We ___ began; suggested; stopped ___ buying food in this shop because the owner raised the prices. 7) ___ Stop; go on; avoid ___ shouting! I hear you quite well. 8) I ___ remember; insist on; risk ___ leaving a map of Rome in the pocket. 9) He ___ liked; thanked for; disliked ___ his daughter chatting on the phone for hours. 10) I can’t see why the machine ___ stopped; put off; decided against ___ working. 11) He ___ objected to; prevented from; couldn’t help ___ warning them about danger. 12) I don’t ___ suggest; like; mind ___ your smoking here. 13) You should ___ continue; enjoy; stop ___ drinking so much coffee. 14) In spite of the difficulties he ___ kept on; insisted on; objected on ___ carrying out his experiments. 15) The machine ___ needs; suggests; can’t help ___ cleaning.

D. Match the beginnings of the sentences with their endings.

1) Diesel locos ___ are capable of; 2) We ___ were surprised at; 3) They ___ were afraid of; 4) Our firm ___ is not responsible for; 5) She ___ was tired of; 6) She ___ is not very good at; 7) They ___ are engaged in; 8) I think this film ___ was worth; 9) Children ___ are fond of; 10) A super airliner of a new kind ___ will be capable of…

1) a) finding new people for their firm. 2) b) skating. 3) c) flying at five times above the speed of the sound. 4) d) watching. 5) e) eating sweets. 6) f) working for a long time without refueling. 7) g) losing their way in the darkness. 8) h) reading the whole day. 9) i) hearing his name among the winners. 10) j) damaging freight during transportation.

1) He is trying to sell his car but nobody ___ is interested in; 2) I was surprised at ___ missing the train. 3) He ___ is good at; 4) This railway company ___ is engaged in; 5) The dog ___ was surprisingly good at; 6) He ___ is always ready for…

2) a) speaking of. b) answering numerous questions. c) saying the wrong thing. d) helping people. e) buying it. 3) f) buying it.
7) The problem is hardly worth... g) solving complex mathematical problems.
8) The speaker got tired of... h) finding smuggled drugs.
9) I was afraid of... i) carrying freight in large-tonnage containers.
10) We had to take a taxi as we were afraid of...

E. Translate the following sentences from Russian into English.

1) Почему она избегает встречаться с журналистами? 2) Несмотря на красный свет, машина продолжала двигаться. 3) Я помню, что оставил билеты на столе. 4) Вы не возражаете, если я перезвоню через несколько минут? 5) Он откладывал написание письма, так как не знал, о чём писать. 6) Я не могу не поздравить его с поступлением в институт. 7) Я ничего не имею против того, чтобы поговорить с ним. 8) Они закончили установку оборудования только в субботу. 9) Он с нетерпением ждал открытия конгресса. 10) Сильный туман помешал самолету совершить посадку (to land) в этом аэропорту. 11) Что вы предлагаете сделать? 12) Извините меня за опоздание.

Ex.9. As the attribute, the gerund goes after nouns and is always preceded by a preposition. Here are these nouns with prepositions.

<table>
<thead>
<tr>
<th>aim of</th>
<th>цели</th>
<th>interest in</th>
<th>интерес к</th>
</tr>
</thead>
<tbody>
<tr>
<td>excuse for</td>
<td>оправдание</td>
<td>hope for</td>
<td>ожидание</td>
</tr>
<tr>
<td>chance of</td>
<td>возможность</td>
<td>method of</td>
<td>метод</td>
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<td>difficulty in</td>
<td>трудность в</td>
<td>methods of</td>
<td>методы</td>
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<td>experience in</td>
<td>опыт в</td>
<td>opportunity of</td>
<td>возможность</td>
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<tr>
<td>habit of</td>
<td>привычка</td>
<td>reason for</td>
<td>причина</td>
</tr>
<tr>
<td>idea of</td>
<td>идея, мысль</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fill in the blanks with the appropriate words. Be careful with prepositions.

1) It is not a good ___ of going to the country in such cold weather. 2) I must confess that I have no ___ of operating this machine. 3) There is no ___ of catching the train. 4) I know many ___ of solving this problem. 5) She had no ___ of answering his letter. 6) Did you have any ___ of solving this problem? 7) He tried to find an ___ of being late. 8) At the meeting they discussed the ___ of improving their work. 9) The ___ of creating a multi-stage rocket belongs to Tsiolkovsky. 10) I have no ___ of listening to your opinion. 11) I had no ___ of getting an answer before the end of the month. 12) He had a strange ___ of interfering in other people’s business. 13) I started to learn English with the ___ of becoming a teacher. 14) If you postpone receiving a visa, you will miss an excellent ___ of going to Italy. 15) What is your ___ of canceling the meeting? 16) I have no ___ of buying a ticket for today’s train. 17) There are many ___ of learning foreign languages. 18) He is in the ___ of calling late.

Ex.10. Fill in the blanks with the prepositions, paying attention to gerunds as adverbial modifies. Consult the box.

1) Several taxis passed me ___ stopping. 2) ___ reaching his destination, he sent a telegram home to say he had arrived safely. 3) We use paper ___ writing, drawing, making origami toys, etc. 4) ___ starting the engine you should carefully clean and oil it. 5) ___ going home he continued his work. 6) You will never be able to translate correctly ___ knowing grammar well. 7) ___ going through the customs he went aboard the plane. 8) ___ delivering the report I had to answer a lot of questions. 9) He went away ___ waiting for us. 10) ___ completing his research he published two papers. 11) ___ showing the conductor my ticket, I went back to sleep. 12) On long train journeys the passengers pass the time ___ reading, playing cards or talking. 13) This apparatus is used ___ measuring air pressure. 14) He managed to save a lot of money ___ working overtime. 15) He was
trying to find a pretext ___ leaving earlier. 16) Read the theory ___ doing the exercise. 17) ___ coming to conclusion he weighed all the “pros” and “contras”. 18) Americans like doing business ___ leaving their cars that is why in the USA there are drive-in banks, drive-in restaurants and drive-in movies.

|----------|-----------|--------|---------|------------|

Ex.11. Read and translate the following sentences. State the function of gerunds.
1) Fences and other devices are built for __________ protecting the tracks against snow and for __________ keeping the livestock away from the railway. 2) They insisted on __________ examining goods before loading. 3) There was still some hope of __________ catching the last train. 4) Working on the computer requires much attention. 5) One of the very first railways in the USA, which was 3 miles in length, used horses for __________ pulling wagons. 6) On __________ entering the compartment a man introduced himself to his fellow travelers. 7) __________ Using computers will enable us to increase the efficiency of work. 8) Instead of __________ increasing fares the Railway Management should concentrate on __________ reducing its costs and __________ improving its efficiency. 9) In 1996 several Asian countries founded the Pan-Asian railway organization with the aim of __________ uniting their individual railways into a continuous network. 10) After __________ laying sleepers upon the roadbed, the workers began __________ fastening the rails to them. 11) The first steps in __________ designing robot engine driver for heavy high-speed trains were made in 1960s. 12) As the railways have a standard gauge now, it is possible for passengers to travel over several lines without __________ changing cars. 13) __________ Flying from Los Angeles to Tokyo on board a new supersonic aircraft will take two hours. 14) As the seats in Metro cars are arranged in rows on both sides of the carriage, the passengers can easily take their seats without __________ causing trouble to other people. 15) He made a lot of money by __________ buying tickets in advance and __________ selling them for twice the price on the day of the train departure. 16) A long tunnel was bored through the mountain but __________ laying railway tracks in this tunnel was not planned. 17) The motor has broken from __________ overheating. 18) This car needs __________ fuelling every 300 miles.

Ex.12. Translate the following sentences from Russian into English.
1) Количество рабочих было уменьшено после установки нового оборудования. 2) Он ушёл, не подождав нас. 3) Было решено [to decide] реконструировать вокзал вместо того, чтобы строить новый. 4) После проведения эксперимента ты должен проветрить лабораторию. 5) Стоимость перевозки пассажиров и грузов можно уменьшить путём увеличения длины и веса поездов. 6) Метод управления движением всех поездов на линии с центрального пункта называется диспетчерской централизацией. 7) Лететь на самолете быстрее, но он предпочитает путешествовать поездом. 8) Подъемный кран – это механическое устройство, которое используется для поднятия [to lift] грузов. 9) Много лет инженеры пытались найти новый материал для производства шпал.

Ex.13. Answer the following questions. Pay attention to gerunds in different functions.
1) Do you realize the importance of __________ learning foreign languages? What about your friends? Do you have much experience in __________ speaking English? 2) Do you take much interest in __________ reading English books in the original? 3) What ways of __________ learning words do you find most effective? 4) How can you improve your English if you haven’t much chance of __________ speaking it? 5) Do you remember __________ taking the first entrance exam? What do you remember about the day? 6) Which do you like better, __________ asking questions or __________ answering them? 7) What films do you consider worth __________ seeing? 8) What are you fond of __________ doing? 9) What is your friend busy __________ doing now?

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10) Do you enjoy traveling by air? Why?
11) Do you prefer traveling by first class carriages or by second class ones? Why?
12) What are you looking forward to?
13) What arrangements do you make before starting on a holiday?
14) You book a ticket in advance instead of leaving it to the last day, don’t you?
15) Do you ever go to another town without saying good-bye to your friends?
16) What do you do on arriving at the place where you are going to spend your holiday?
17) What do you do to enjoy yourself during a holiday besides swimming or lying in the sun?
18) You gain a lot by visiting different places of interest, don’t you?

Ex.14. TEST.
By means of this test find out more about yourself and your acquaintances.

Are you an extrovert or an introvert?
1) You are invited to the party. What is your reaction?
   a) Good! I enjoy going to the parties because I have a hope of meeting some new people.
   b) I don’t want to go! Nobody spoke to me at the last party.
   c) I like going to the parties because I like being the center of attention.
2) You are at the party. Everyone is telling jokes.
   a) You are capable of telling dozens of jokes.
   b) You manage to remember a couple of jokes.
   c) You can’t think of a single joke or avoid telling something in public.
3) You realize that you have nothing planned for Saturday evening.
   a) You are frantic. You hate spending spare time alone. You ring some friends up and arrange an outing to the cinema.
   b) You think, “It is time I have an evening in.”
   c) You think, “It’s a good opportunity of reading my new library book.”
4) Do you like risks?
   a) Sometimes.
   b) Never.
   c) Often.
5) You are asked to help organize a group excursion.
   a) You accept willingly. You are sure that you are capable of organizing the excursion perfectly well.
   b) You hesitate for a moment and then accept.
   c) You are terrified. You refuse.
6) How do you spend most of your leisure time?
   a) By yourself.
   b) With one or two friends.
   c) With a group.
7) Do you ever think about the meaning of life?
   a) Sometimes.
   b) Often
   c) Never. I’m too busy living.
8) Do you find it easy to make decisions?
   a) It depends.
   b) It is always easy to decide.
   c) I can never make my mind.
9) You have a new boy-friend/girl-friend. Your friends tease you about him/her and make jokes.
   a) You don’t pay attention to their words.
   b) You can’t help smiling. You don’t mind being teased.
e) You are embarrassed. You don’t like people making fun of you.

10) Somebody in your group is saying horrible things about you.
   a) You get worried about it.
   b) You don’t care what they say.
   c) You begin saying horrible things about them.

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**THE ANALYSIS**

35–60 points: You are a true extrovert. You enjoy being in a group. You have lots of self-confidence. You are an active practical person, and you are outward-looking. You enjoy making decisions and taking risks. But be careful; don’t be too much sure of yourself. Remember that you can hurt sensitive people by your lack of understanding.

26–34 points: Like many people, the outside world is as important to you as your own inner world. You are sometimes in between the extrovert and the introvert, and you can have the good qualities of both. But be careful that you haven’t all the bad qualities!

10–25 points: You are a true introvert. Your inner world of dreams and ideals is more important than the external world. You are neither realistic nor practical. You do not like showing your feelings to other people, in case they hurt you. Use your sensitivity to appreciate beautiful things and understand other people’s feelings.

Ex.15. Translate the following sentences paying attention to –ing forms.

1) Having tested the new locomotive, the engineers recommended it for series production.
2) Helicopters need very little space for taking off and landing.
3) Indian Railways has designed and built a prototype double-deck car having seats for 148 passengers.
4) Railway transport is one of the cheapest ways of hauling freight over long distances.
5) Russian trains run on 76 direct international lines linking Moscow with Paris, Copenhagen, Berne, Rome, Berlin and so on.
6) Having worked at the railway for several years, Paul gained much experience in driving electric locos.
7) Having reached the river they stopped because there was no bridge across it.
8) I think that walking is the best way of traveling.
9) This power station works 24 hours a day, supplying five million houses with electricity.
10) Passing by a shop window, he paid attention to the picture exhibited there.
11) Talking on cellular phones while driving is very dangerous, that is why it is banned.
12) Engineers are trying to find the ways of reducing the cost of electrifying railways.
13) The Moscow railway junction, the largest terminal in this country, is equipped with up-to-date devices providing coordinated operation of all the services.
14) Stopping fuel supply caused serious trouble in the engine.
15) Two or more locomotives are used for pulling trains consisting of 80 freight cars.
16) Around $1.2 billion is being spent on modernizing the 270 km suburban network of Sao Paolo (Brasil); this includes buying new trains, refurbishing existing stock, renewing signaling equipment, plus constructing new railway stations, rebuilding old ones and laying new tracks.
17) They stopped a fast-running taxi.
18) When filling in the form, you must write your name and address clearly.

Ex.16. Read and translate the following word combinations paying attention to the attributive groups.
Ex. 17. Read and translate the following sentences using the predicates in the required tense and voice forms.

2) She [to tell – Past Indefinite Passive] in the enquiry office that the schedule of this commuter train [to change – Past Perfect Passive].
3) This line [to upgrade – Present Continuous Passive] to carry heavier volumes of freight and passenger traffic.
4) The track repair work [to delay – Past Indefinite Active] the arrival of the trains.
5) A diesel engine [to belong – Present Indefinite Active] to a class of internal combustion engines.
7) The freight train [to move – Past Continuous Active] at a high speed when the engine driver [to see – Past Indefinite Active] that the line [to damage – Past Indefinite Passive].
9) The new automated control system [to eliminate – Future Indefinite Active] all types of accidents which can be caused by the driver’s error.
10) Railway track [to strengthen – Future Indefinite Passive] on this section of the mainline because it [to plan – Present Indefinite Passive] to increase the volume of freight traffic here.

Ex. 18. Find grammar mistakes in the following sentences and correct them. The number of mistakes is pointed out in brackets.

1) Nowadays London’s transport move only 4 km fastest than at 1912. [3] 2) Most big trains are running on diesel fuel. [1] 3) Train fares were been increase by 10% in recent years. [2] 4) There is special lanes for buses at some streets. [2] 5) Railway engineers have designed a lot of device which finds its application in other branches industry. [4] 6) The seats of improve design have been fitted in the automobile. [1] 7) Machines were replaced hard manual labor of loaders. [1]
8) Kerosene is a fuel using in jet engines. 9) We don’t have to wait long a buses in the morning because they frequent run. 10) Our company installs computers free of charge but it don’t repair it. 11) The train arrived in the station according the schedule. 12) The car repair will not take many time. 13) The insurance company will pay for repairing of the damaging car. 14) I were in such a hurry that I did not had time to phone you.

Ex. 19. Write negative sentences instead of positive ones.
1) The old railway terminal will be upgraded next year. 2) The accident was my fault so I had to pay for the damage to the other car. 3) The very first railways were used for transporting passengers. 4) There are dining cars in the commuter trains. 5) I have an extra ticket. 6) Freight electric locos develop a speed of 300 km/h. 7) He goes by bus to work because he prefers to walk. 8) I like to travel by sea because I am seasick. 9) We can imagine life without gas, electricity and other modern conveniences. 10) Electricity has many useful properties: it generates by-products and contaminates the environment. 11) The maintenance team had finished the repair of the track by 6 p.m. 12) I think he will get this job because he has enough experience. 14) The car was tested on the mountain roads. 15) I know why John has answered my letter. 16) He said anything. 17) Bus №10 runs here any longer. 18) They charge for parking near the office. 19) There were many people near the booking office. 19) He has booked a return ticket and now it may be difficult to buy it for a direct train. 20) I can guarantee that he will be able to install the equipment in time. He is a man to rely on.

TEXT A

Before reading and translating the text match the words in the left column with their translation on the right.

| 1) tractive stock       | a) курсы повышения квалификации |
| 2) automatic block system | b) занимать место |
| 3) tank car             | c) с отрывом или без отрыва от производства |
| 4) cargo-owner          | d) ежегодно |
| 5) whereabouts of freight | e) грузовладелец |
| 6) to rank              | f) цистerna |
| 7) approximately        | g) приблизительно |
| 8) annually             | h) тяговый подвижной состав |
| 9) improving one’s qualification | i) местонахождение груза |
| 10) extension courses   | j) система автоблокировки |
| 11) with or without discontinuing work | k) повышение квалификации |

KUIBYSHEV RAILWAY

The Kuibyshev Railway (KR) is one of the oldest railroads in Russia. Its history began in October 1874, when the first Morshansk-Sysran section was opened for regular train traffic.

Much has been changed since that time. Thousands kilometers of new lines have been built; steam locomotives have been replaced by diesel and electric tractive stock (80 per cent of all traffic is carried out by means of electric traction, 20 per cent – by means of diesel traction); automatic block system and Centralized Traffic Control are now being used instead of telegraph train communication; powerful industrial-technical basis has been created.

At present the KR is one of the largest mainlines of the Russian Federation, connecting its Centre and West with the major economic areas of the Urals, Siberia, Far East and countries of Middle Asia. The total operating length of the railway is over 4,800 km, 54 per cent of them is electrified. The steel lines extend through the territories of seven regions and three republics of the Russian Federation.
Great amounts of various cargoes are carried by the railway, among them are: oil and oil products, chemicals, timber, cement, construction materials. Every fifth tank car with liquid goods and every third motor car in Russia is shipped from stations of the KR. To handle freight traffic there are about 230 stations, including 58 stations on the territory of the Samara Region.

The KR ensures complex services to its customers. A cargo-owner has only to make an order, and shipment and delivery of goods will be provided «from door to door» with execution of transport papers, including insurance and customs documents. Moreover, there exists the system of informational customers' services, and a cargo-owner can get complete information of whereabouts of his freight. It is possible thanks to the computation centre of the KR, which ranks among the largest ones within the Russian railway network.

The main aim of the KR is to provide safe, reliable and fast rail transportation of passengers. Approximately 80 million passengers are carried by the railway annually. About 100 passenger long-distance trains and up to 250 local trains run on the railway daily. Six passenger trains of higher comfort run between Samara and Moscow, Pensa, Saransk, Ulyanovsk, Ufa. The schedule of such trains is worked out in accordance with the passengers' requirements as to arrival and departure time. The passengers are proposed various services both during their journeys and at the terminals: meals, latest newspapers and magazines, radio- and TV-broadcasting, security.

It should be said that the operation of the KR would be impossible without people. About 100,000 highly skilled specialists are employed by the KR, among them are: engineers, technical personnel, economists, engine drivers and their mates, passenger car conductors, car repair fitters, loaders and others. Much attention is paid to training, re-training and improving the qualification of both engineers and workers of mass trades.

The railway's own system of school education and professional training was created in the late 1900s. This system is constantly developing; it includes secondary, vocational and technical schools, as well as the Samara State Railway Academy. This higher school trains engineers, economists and book-keepers for the KR. It also has special extension courses for railway employees. They are organized so that each specialist may take this course for improving his/her qualification once in six years with or without discontinuing work.

Ex.20. Complete the following sentences and add something to develop the situation.

1) The Kuibyshev Railway… . 2) The history of this railway began… . 3) TheKR connects… . 4) The total length… . 4) Diesel and electric tractive stock… . 5) Automatic block system and Centralized Traffic Control are… . 6) Various types of freight such as… . 7) To handle freight traffic… . 8) A cargo-owner has only to make an order… . 9) Thanks to the Computation Centre a cargo-owner… . 10) The main aim of the KR is… . 11) About 80 million passengers… . 12) About 100,000 highly skilled specialists… . 13) The system of training specialists for the railway includes… . 14) The Samara State Railway Academy not only trains specialists, but also… .

Ex.21. Correct the following sentences using the introductory phrases. (See Lesson 1.)

1) The KR is the oldest railway in Russia. 2) The KR connects Moscow and St. Petersburg. 3) Steam traction is used on some sections of the KR. 4) The total length of the railway is over 4,800 km and 100 per cent of them is electrified. 5) The KR handles only freight traffic. 6) Liquid goods are carried in box cars. 7) To handle freight traffic there are two stations on the territory of the Samara region. 8) The computation centre of the KR ranks among the largest ones in the world. 9) About 80,000 passengers are transported by the railway annually. 10) Six passenger trains of higher comfort run between Samara and London. 11) All passenger trains depart from the Samara terminal in the mornings. 12) About 100 railwaymen work at the railway. 13) Both engineers and workers of the KR have higher education.
Ex.22. Talk on the past and present of the Kuibyshev Railway. To make your story logical keep to the following main items:

- Tell a few words about the history of the KR.
- Give a short characteristic of the present state of the KR: a) its length and the type of traction used; b) transportation of freight; c) transportation of passengers.
- Tell what you know about the people working at the railway and their training.
- If you once traveled by train belonging to the KR, tell about your impressions. What did you like and dislike about your travel.

Ex.23. Give English interpretation of the following Russian text.

**ROSSIJSKIE ZHELEZNYE DOROGI**

Россия — одна из стран мира с высоко развитыми железнодорожным транспортом. Сеть железных дорог пронизывает страну с севера на юг и с запада на восток. Стали магистрали соединяют самые отдалённые регионы страны с центром. Железная дорога — наиболее популярный вид грузовых и пассажирских перевозок.

Поезда дальнего следования, как правило, приспособлены на пребывание в них как в дневное время, так и в вечернее время. В этих поездах имеется 1-2 вагона-ресторана. Расстояние от одной конечной станции маршрута до другой может быть таким большим, что пассажирам приходится проводить в одном и том же поезде до 8-10 дней. В случае, если нет прямого поезда до места назначения, необходимо делать пересадку на узловых станциях. Часто наступает поездка времени прибытия и отправления поездов приводит к потере времени и упрощает саму поездку.

Поезда дальнего следования бывают двух типов: скорые и пассажирские. Пассажирские поезда останавливаются даже на самых маленьких станциях.

Есть ещё один тип поездов, которые в своём составе имеют пассажирские вагоны — это почтовые поезда. Поезда на них тянутся долго, и такие вагоны практически не используются на современных железных дорогах.

Между расположенными недалеко друг от друга городами ходят электрички, перевозя пассажиров из дома на работу и обратно. Утром и вечером они ходят чаще, чем днём, и между 12 часами ночи и 5 часами утра — перерыв.

**TEXT B**

*Read and translate the text using a dictionary if necessary.*

**RIO REVIVES THE COMMUTER RAIL NETWORK**

*Rio de Janeiro’s suburban railway network has a long history of deterioration. It could have disappeared entirely by now but for the fact that it was privatized in 1998. SuperVia (the new private owner of the Rio commuter network) began the slow process of reviving railway network. SuperVia inherited a large number of serious problems. Signaling did not work properly. Only 35 out of a fleet of 180 four-car trains were operational, some of them only barely. The condition of the track was poor, and only 50% of all journeys were completed, such was the frequency of breakdowns. Several accidents that occurred soon after privatization also gave SuperVia a very bad public reputation at the outset, but the company quickly took measures. The worst sections of track were replaced and the others were upgraded. Besides, SuperVia began rebuilding emus1 and this work has increased the number of the working emus to 126 trains, while another 48 emus are currently being restored. All the new and rebuilt emus are air-conditioned, an important design element in the tropical climate of Rio. In addition, 20 km of rails, 50,000 sleepers and 83 switches2 have been replaced. The system of power supply is being upgraded and all 30 stations are being refurbished3. Drainage has also been improved to overcome serious flooding problems, which have halted traffic in the past.*
These measures have worked. Reputation of SuperVia is rapidly improving and passengers have begun to come back. In 1998 the network carried just 170,000 passengers a day but in 2003 traffic has reached 300,000 riders a day. The ultimate aim is to increase passenger traffic to 1.4 million customers.

SuperVia’s image has been restored to such extent that the newly elected left-wing state government, opposed in principle to privatization, has admitted that the operator is doing a really good job!

Notes: 1 emu (electric-multiple unit) – электричка
2 switch – стрелочный перевод
3 to refurbish – реставрировать, модернизировать, обновить

Ex.24. Choose the appropriate word combinations to complete the sentences.
1) Having privatized Rio’s suburban railway network, SuperVia…
   a) increased fares. b) began refurbishing emus. c) fired all locomotive drivers.
2) SuperVia had to replace…
   a) the system of power supply. b) the system of signaling. c) the worst sections of track.
3) The new and rebuilt emus are equipped with…
   a) air-conditioning systems. b) computers and fax machines. c) long-distance telephones.
4) In 1998 the railway network carried…
   a) 1.4 million riders a day. b) 170,000 passengers a month. c) 170,000 customers a day.
5) The ultimate aim of SuperVia is…
   a) to increase the number of employees. b) to increase passenger traffic. c) to increase train fare.

TEXT C

Read and translate the text using a dictionary if necessary.

INDIA’S RAILWAY PROJECT

The first plans for constructing a railway line along the west coast of India were proposed in 1880s but they were not carried out. A feeble attempt to extend the line from Bombay to Mangalore was made much later, but between 1964 and 1986 only 100 km of track were laid down. In 1990 the Konkani Railway Corporation was formed to build the remaining 760 km within 5 years. The new railway linking Bombay with Mangalore was inaugurated in 1996. It is 1127 km shorter than the old route.

The reduction in distance enabled the Konkani Railway to decrease the journey time. Even if trains run at a maximum of only 100 km per hour, the journey time between Bombay and Mangalore will come down from 41 hours to 15 hours. Train speeds of 130 km per hour or 160 km per hour will provide time savings that are even more spectacular. Besides it had been estimated that fuel saving of more than Rs2 billion was achieved.

About 11% of line goes through tunnels. These tunnels are equipped with sensors to monitor air contamination, temperature and visibility. The ventilation system is activated automatically via the data obtained from the sensors. The exact position of a train within the tunnel is indicated on a panel in the traffic control room at the tunnel entrance. The Konkani Railway has the longest railway tunnel in India (6.5 km), the tallest viaduct in Asia (the 64 m). There are 2,134 bridges on the line.

An integrated computerized system covering trains control and scheduling, ticketing, rolling stock monitoring has been developed for the line operation – another innovation for India. The Konkani Railway has a considerable impact on the lives of more than 10 million people who live in its adjacent area. Construction has already provided direct and indirect employment for a large number of people. The all-weather line provides a cheaper form of transport and accelerates industrial activity based on locally available minerals such as iron, ore, and bauxite.
The scenic beauty of the area is exceptional and 160 km/h express trains are being planned between Bombay and Goa to stimulate tourism in the region.

**Note:** 'traffic control room – пункт управления движением

**Ex.25. Choose the appropriate word combinations to complete the sentences.**

1) The Konkani Railway was inaugurated in…

2) The reduction in distance resulted in…
   a) increasing train speed. b) cutting down journey time. c) decreasing fare.

3) The speed potential of the Konkani Railway is…
   a) 100 km/h. b) 130 km/h. c) 160 km/h.

4) About 11% of the line is laid down…
   a) under the ground. b) in the tunnels. c) on the bridges.

5) The journey time from Bombay to Mangalore is…
   a) 12 hours. b) 30 hours. c) 41 hours.

**TEXT D**

*Read and translate the text using a dictionary. Put questions to the underlined words.*

**USA (Dallas)**

**LIGHT RAIL \(^1\) ARRIVES IN THE LONE STAR STATE**

The first stage of Dallas light rail network was inaugurated in June 1997. Marching bands, balloons, free rides created a lively atmosphere in Dallas, when the city and its surrounding region celebrated the Grand Opening of the first modern light rail line in Texas. The ceremonies were held at all 14 stations along the initial 16 km route as well as in the city centre.

More than 4,000 local officials and citizens from across the region gathered in temperatures of over +37° C to witness the opening of the light rail.

The Grand Opening, a five-day period of public celebrations, included a gala dinner, art program and parties at eight of the fourteen stations. Thanks to sponsorship from over 80 corporations, passengers were also able to ride free of charge for the whole of the following week in a «try-it-you’ll-like-it» campaign. The biggest sponsors were recognized with their names on some of the cars exteriors.

Approximately 8,600 passengers rode the light rail line on the first afternoon. Regular commercial services began on June 24. The standard fares are: $1 for a single ticket and $2 for a return ticket, apart from the city centre zone where there is a 50 cent single ticket. Different discounts are proposed (e.g. passengers can buy 11 tickets for the price of 10, and there is also a “day pass” offering unlimited travel on light rail and bus services for just $3 a day).

Dallas light rail network has purchased 40 Light Rail Vehicles (LRV). Able to accommodate 160 passengers each, the cars have a top speed of 105 km/h. The air-conditioned LRVs can operate singly or in trains of up to three depending on demand. Traffic frequency on the city centre section is 5 minutes and 10 minutes during the peak hours and off-peak hours respectively.

Capital Program of the Dallas light rail network development envisages construction of additional light rail and commuter rail routes over the next 15 years, creating a 145 km network by 2010.

**Note:** \(^1\)light rail – высокоскоростная железная дорога местного значения
**Ex. 1. Practice the reading.**

- **ear**
  - appear, clear, near, hear, gear, tear, fear, dear, nuclear;
  - BUT: beard; heart; wear, pear, bear.

- **age**
  - advantage, usage, tomage, drainage, milage, haulage, shortage, storage, cottage, assemblage, carriage, average, courage, manage, passage, percentage, voyage, voltgage, envisage, language, garbage, package, leakage.

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### Words and word combinations to be remembered

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<td>disadvantage</td>
<td>недостаток</td>
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<td>2) although</td>
<td>хотя</td>
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<tr>
<td>3) to bore</td>
<td>бурить, сверлить; проходить тоннель</td>
</tr>
<tr>
<td>4) to collapse</td>
<td>разрушаться, рушиться</td>
</tr>
<tr>
<td>collapse</td>
<td>крушение, разрушение</td>
</tr>
<tr>
<td>5) to cross</td>
<td>пересекать, переходить, переправляться</td>
</tr>
<tr>
<td>crossing</td>
<td>переправа, перекресток, ж.д. переезд</td>
</tr>
<tr>
<td>6) emergency</td>
<td>чрезвычайный, экстренный, запасный; крайняя необходимость, непредвиденный случай</td>
</tr>
<tr>
<td>7) to exist</td>
<td>существовать</td>
</tr>
<tr>
<td>8) failure</td>
<td>неудача, провал; (Mex.) авария, повреждение, отказ в работе</td>
</tr>
<tr>
<td>9) ferry</td>
<td>паром</td>
</tr>
<tr>
<td>10) to mention</td>
<td>упомянуть</td>
</tr>
<tr>
<td>11) noise</td>
<td>шум</td>
</tr>
<tr>
<td>12) to object (to smth)</td>
<td>возражать (против чего-либо)</td>
</tr>
<tr>
<td>objection</td>
<td>возражение</td>
</tr>
<tr>
<td>13) to proceed (to)</td>
<td>следовать (do); перейти (to) ...; продолжать</td>
</tr>
<tr>
<td>14) profit</td>
<td>доход</td>
</tr>
<tr>
<td>profitable</td>
<td>выгодный</td>
</tr>
<tr>
<td>15) to refuse</td>
<td>отказываться</td>
</tr>
<tr>
<td>16) to remain</td>
<td>оставаться</td>
</tr>
<tr>
<td>17) research</td>
<td>исследование, научно-исследовательская работа</td>
</tr>
<tr>
<td>18) to result (in smth)</td>
<td>приводить (к чему-либо)</td>
</tr>
<tr>
<td>scheme</td>
<td>план, схема, проект</td>
</tr>
<tr>
<td>19) so far</td>
<td>пока</td>
</tr>
<tr>
<td>20) successful</td>
<td>успешный</td>
</tr>
<tr>
<td>21) success</td>
<td>успех</td>
</tr>
<tr>
<td>22) to take place</td>
<td>происходить, иметь место</td>
</tr>
</tbody>
</table>

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**Ex. 2. Read the sentences replacing the Russian words by their Russian equivalents. Be careful with Grammar.**

1) The first мост at Niagara Falls was built by Samuel Keefer but it разрушиться under the action of wind in seven months after completion. 2) The sign of the London Underground is a пересечённый red circle with a blue stripe. 3) The главные недостатки of steel sleepers are...
their high price and the [шум] caused by trains passing over them. 4) The first double-deck buses [появились] in London in 1851 but at that time the upper deck had no roof and the passengers were given raincoats to put on if it started to rain. 5) The trip by [высокоскоростной паром] from Helsinki to Tallinn [длится] an hour and a half, even [быстрее] than by plane. 6) The engine driver’s work on the automatically [управляемый] trains is to supervise that the [оборудование] operates properly and to take over manual control in case of [необходимость]. 7) The construction of early bridges without basic knowledge of mathematics [приводить к] great tragedies [из-за] the bridges’ [рушение]. 8) After the fire, very little [оставаться] of the house. 9) When working out the project of the Moscow Metro, the Russian engineers carefully studied the [существующий] systems abroad. 10) How can you explain the [отказ в работе] of the engine? 11) [Хотя] the report was short, it covered the subject completely. 12) Road safety [оставаться] one of the most important problems in the modern world. 13) The greater part of the [исследование] has been completed. 14) Such substance doesn’t [существовать] on the Earth.

Ex.3. Choose the correct word and translate the sentences.
1) The railroad [connects; improves; exists; crosses] the highway about three miles from here.
2) A ferry is a [train; carriage; vehicle; ship] that carries people and goods across the river, lake or channel.
3) There is a train radio telephone in each driver’s cab and a dispatcher can communicate with the driver in case of [research; emergency; success; crossing].
4) The weight of the snow on the roof caused the house to [disappear; exist; collapse].
5) I remember your [discussing; mentioning; approving; objecting] to this project.
6) The main [failures; advantages; disadvantages; collapses] of electric locos are high speeds of running and clean operation.
7) People believed J. Watt to be the inventor of the first steam engine because the work of I.I. Polsunov [took place; existed; remained; mentioned] unknown for more than a century.
8) The experiment was a [success; failure; research; emergency], because the measuring instruments were defective.
9) The main [advantage; profit; disadvantage; success] of the steel sleeper is its durability and reliability.
10) Finland has the same railway gauge as Russia that is why high-speed trains can [proceed; remain; disappear; cross] the border without stopping.
11) Why did you [object; remain; arrive; refuse] to take part in the expedition?
12) In case of [emergency; derailment; failure; danger] the doctors are sent to the island by helicopter.

Ex.4. Translate the words given in the box.

Fill in the blanks with the appropriate words. Be careful with Grammar.
1) Be careful when you ___ the road in this place: the ___ is very heavy here. 2) The accident on the road ___ a traffic jam and we were afraid of missing the airplane. 3) This express train will ___ to the final destination without any stops. 4) He ___ at home while the rest of us went to the terminal to see our friends off. 5) There were many people on the pier waiting for the arrival of the ___. 6) Everyone engaged in this ___ was awarded with special prizes. 7) According to the ___ the channel will be deepened and widened. 8) Success came after many ___. 9) The
engineer was asked to estimate the ___ for the repair of the building. 10) This mechanism activates the ___ brake. 11) Let it ___ as it is. 12) The engine was old and was making a lot of ___

**GRAMMAR REVIEW**

(Infinitive; Complex Object; Complex Subject; attributive groups)

Ex.5. Translate the following sentences paying attention to infinitives. State the functions of infinitives.

A. 1) To use steel rails instead of wooden ones was a great step forward. 2) It is very difficult to drive a car in a big city. 3) It will be quicker to return the book by mail. 4) The task of traffic police is to provide safety on roads. 5) Although David started his career as a small clerk, his aim was to become a head of a big business. 6) The mechanic was asked to estimate the cost for the repair of the car. 7) Suddenly the engine began to make a strange noise. 8) The train was too heavy to be hauled by one locomotive. 9) The new tunnel to be constructed here will be the longest in the country. 10) A special design bureau in St.Petersburg was the first in the world to develop the production of super-long escalators. 11) He was not old enough to drive a car at that time. 12) To make the Moscow-St.Petersburg line straight and level, 185 bridges and 19 viaducts were built. 13) The railways must increase their speed to compete with air and road transport. 14) The lorry is too heavy to be towed by a car. 15) To avoid accidents the driver must strictly follow traffic rules. 16) A band of metal was used to strengthen the joint.

B. 1) The new branches of industry to be developed in this part of the country are metallurgy and radio engineering. 2) The function of the automatic engine driver is to start and stop the train, to select the speed of running and to keep strictly to the schedule. 3) To protect wooden sleepers against decay, they are treated with creosote. 4) In planning a railway route the main factors to be taken into account are the cost of constructing a line, the cost of operating it and the probable volume of traffic. 5) The Tacoma Bridge collapsed because its structure was not strong enough to withstand the wind of 42 miles per hour. 6) Before the refrigerator car was invented, it was impossible to carry fresh meat, fruit, vegetables and other food products for long distances. 7) The boat is not strong enough to be used for distant journeys. 8) It is necessary to provide regular maintenance of the car. 9) In the USA the Baltimore Railway Company was the first to put forward the idea of centralized railway traffic. 10) In Hong Kong the new trains carrying passengers to and from the airport are equipped with TV sets to give information on flights, news, tourist information and weather. 11) It is dangerous to stand on the step of a moving train. 12) The aim of using several locomotives in one train is to carry extremely heavy loads. 13) Our design bureau has developed spiral escalators to be used in public buildings. 14) She is too proud to receive customers’ tips. 15) Some scientists say that it is dangerous to use cellular phone too much. 16) We are never too old to learn. 17) To know everything is to know nothing.

Ex.6. Complete the sentences using infinitives as subjects according to the model. If it is difficult for you to make up your own sentences, consult the box.

Model: It is dangerous… → To ride a motorcycle with closed eyes is dangerous.

1) It was quite difficult… 9) It was unpleasant…
2) It is important… 10) It was never easy for me…
3) It would be interesting… 11) It will take you half an hour…
4) It was foolish of him… 12) It is necessary…
5) It is always a pleasure… 13) It might be exciting…
6) It is impossible… 14) It is a good idea…
7) It is simple… 15) It is dangerous…
8) It is better… 16) It is easier…
to start the engine in such cold weather  
to get a good dinner in our canteen  
to communicate with people thanks to Internet  
to go to the country tomorrow  
to ride an elephant  
to steal the money from the bank  
to watch good films and to read good books  
to get a visa  
to buy this old car  
to hear the other side of the story  
to watch their quarrel  
to give advice than to follow it  
to play chess with Karpov  
to have few real friends than to have a lot of acquaintances  
to get to the airport  
to stand on this ladder  
to talk to you  
to learn this rule by heart  
to get tickets for this train  
to ride with a drunk driver  
to give up smoking  
to see you  
to meet new people  
to take part in this expedition  
to jump with a parachute  
to learn Japanese  
to be wealthy than to be healthy  

Ex. 7. Match two parts of the sentences paying attention to infinitives as predicatives.

1) The job of the dispatcher is… a) to repair the track as soon as possible.
2) Your duty will be… b) to find necessary equipment for the experiment.
3) My wish is… c) to prepare breakfast.
4) The task of the workers was… d) to control the movement of trains.
5) The function of railway signals is… e) to visit it on foot.
6) The only chance to catch the train was… f) to look through the mail.
7) The main problem was… g) to construct the new bridge for both railway and road traffic.
8) Their project is… h) to keep the trains at some distance from one another.
9) The best way to get to know the city is… i) to go around the world.
10) Every morning my first job is… j) to hire a taxi.

Ex. 8. Fill in the blanks with the infinitive forms of the appropriate verbs in the function of the object. Use your imagination and a dictionary if necessary.

Model: I was glad ___ a letter from you. → I was glad to get a letter from you.

1) Don’t forget ___ the lights before you go out. 2) I asked the passer-by ___ me the way to the nearest bank. 3) The police wanted ___ the cause of the accident. 4) I was surprised ___ Tim at the meeting. 5) Jack failed ___ the book to the library on time. 6) They agreed ___ the damage free of charge. 7) When I decided ___ English, I didn’t know how difficult it would be. 8) Only very wealthy tourists can afford ___ at the Hilton. 9) We were sorry ___ the bad news. 10) I promised ___ the CD by next weekend. 11) They planned ___ by train, but they went by car after all. 12) We’ve arranged ___ with their representatives to discuss the problem. 13) He hopes ___ this information tomorrow. 14) Unfortunately I didn’t manage ___ the exam. 15) She was pleased ___ the invitation to the party. 16) We were relieved ___ that he had arrived safely. 17) The inspector asked the passengers ___ their tickets. 18) We were lucky ___ the last tickets for the 12 o’clock train.
Ex. 9. Fill in the blanks with the appropriate infinitive as the attribute from the box. The first one is done for you.

<table>
<thead>
<tr>
<th>to appear</th>
<th>to be followed</th>
<th>to be discussed</th>
</tr>
</thead>
<tbody>
<tr>
<td>to be installed</td>
<td>to be repaired</td>
<td>to do</td>
</tr>
<tr>
<td>to be taken</td>
<td>to be transported</td>
<td>to be understood</td>
</tr>
<tr>
<td>to be memorized</td>
<td>to be missed</td>
<td>to be confirmed</td>
</tr>
<tr>
<td>to arrive</td>
<td>to rely on</td>
<td>to confirm</td>
</tr>
</tbody>
</table>

1) The road surface to be upgraded was destroyed by heavy motor vehicles many years ago. 2) Japan was the first country to the system of automatic ticket selling. 3) He is not a man to me. 4) The Times was the only newspaper that morning. 5) He is the only man it better than me. 6) Goods to the north are stored at the railway station. 7) The problem is connected with the city water supply system. 8) The bridge was built in the 18th century. 9) The engine in this car is very powerful. 10) The train at the station in 5 minutes will be the train from Moscow. 11) Here is an example. 12) In every subject there are elements, but there are also some underlying principles. 13) These are the measures urgently. 14) This was a lucky chance not. 15) The President was the first to confirm this information.

Ex. 10. Make up sentences to say why people go to some of the following places. Begin with: You go...

Model: a library → You go to a library to borrow books.

You go to a bookshop to buy books. You go to a cinema to see a movie. You go to a theatre to see a play. You go to a driving school to learn to drive. You go to a railway station to catch a train. You go to an inquiry office to get information. You go to an airport to catch a flight. You go to a booking office to book a flight. You go to a bank to withdraw money. You go to a restaurant to eat. You go to a Left-Luggage Office to leave your luggage. You go to a supermarket to buy food. You go to a garage to repair your car. You go to the Academy to study.

Ex. 11. Complete the following sentences with the infinitive phrase.

Model: This car is too expensive → This car is too expensive for me to buy it.

1) Today it is too cold to go out. 2) The reason is serious enough to be concerned. 3) Nuclear physics is too difficult to understand. 4) This car is not powerful enough to drive. 5) Your knowledge of English is good enough to communicate. 6) The box is too heavy to carry. 7) We were too tired to continue. 8) The student was clever enough to succeed. 9) He was too proud to listen. 10) As they were busy, they did not have enough time to complete. 11) The traffic was too heavy to drive. 12) We don’t have money enough to buy it.

Ex. 12. Translate the following sentences from Russian into English.

1) Мы остановились, чтобы заправить машину. 2) Цель реконструкции этой железной дороги состоит в том, чтобы увеличить скорость движения поездов до 240 километров в час. 3) Люди, которые будут приглашены на конференцию, получат специальные приглашения. 4) Для того, чтобы расследовать детали и причины катастрофы поезда была создана специальная комиссия. 5) Я научился водить машину достаточно быстро. 6) Завести двигатель в такую холодную погоду очень трудно. 7) Проблема состояла в том, чтобы выбрать лучший проект из семи предложенных. 8) Для того чтобы добраться до Нового Орлеана нам придётся сделать пересадку в Бирмингеме. 9) Двигатель, который будет установлен в этой машине, очень мощный. 10) Невозможно перевозить наливные грузы без специальных вагонов. 11) Были проведены многочисленные эксперименты, чтобы подтвердить новую теорию. 12) Единственный шанс успеть на поезд – поймать такси.

Ex. 13. Read and translate the text paying attention to non-finite forms of the verbs.

Alarm-clocks produced in that city are rather pleasant to look at but they, extremely rare if ever, wake you up at a proper time. Once a man came to a lawyer with a demand to charge the plant producing these alarm-clocks the fare of the flight from New York to
Texas. On hearing this demand the lawyer couldn’t help being surprised. It took the man demanding his money several minutes to explain what the matter was. The alarm-clock didn’t ring at the required time and the man sleeping soundly was late for his plane. The lawyer didn’t consider the explanation given reliable enough and decided to make an experiment. He went to the shop selling these alarm-clocks. They put four alarm-clocks to ring at 7 a.m. In the morning it turned out that two of them stopped long before the required time. One of the tested alarm-clocks didn’t ring at all. And the last rang at 9 a.m. The data received made it possible for the man to get his money back.

Ex.14. Read and translate the following sentences paying attention to the infinitive construction Complex Subject.

A. 1) Customer is known to be always right. 2) Do you happen to know when the train will arrive? 3) The repair of the track is likely to be over in an hour. 4) We appear to have met before. 5) He is unlikely to follow your recommendations. 6) This work seems to take much time. 7) Thunderstorm is said to be approaching. 8) They were expected to take a taxi. 9) The suitcase seemed to get heavier and heavier as I carried it along the road. 10) The price of the tickets proved to be not very high. 11) He is unlikely to follow your recommendations. 12) This work seems to take much time. 13) The car seemed to be in excellent condition. 14) He turned out to become a good specialist. 15) Do you happen to know who can repair this device? 16) She seems to be waiting for you.

B. 1) The train timetable is known to be always compiled for a long period, generally for six months. 2) Have you happened to see where they parked their car? 3) He seems to know what he is talking about. 4) She is unlikely to go by plane, because she is airsick 5) The electric locomotive’s service life is said to be about 30 years. 6) Firms from more than 20 countries are expected to take part in the next international railway transport exhibition in Moscow. 7) The French super-train “Aquitaine” was reported to cover the 580 km distance from Paris to Bordeaux non-stop in four hours. 8) At a large terminal there are so many tracks that trains seem to be arriving or departing every minute. 9) The railways are known to carry 80 per cent of all freight because only the railways can transport anything, almost anywhere and do it without thinking of weather conditions. 10) The price of railway tickets was reported to be increased in summer.

Ex.15. Make up sentences and translate them into Russian.

- Two new Metro stations
- The weather
- The VL80 Locomotive
- The atom
- The boxes with equipment
- The new power-station
- Ink
- The price of the tickets was reported to be increased in summer.
- to have lost the key to her suitcase.
- to know how to handle this device.
- to be there at the time of the accident.
- to have changed since I saw you last.
- to be very brittle.
- to result in a flight delay.
- to be very comfortable.
Ex.16. Translate the following sentences from Russian into English using the construction Complex Subject.

1) Полагают, что новая железная дорога откроет новые возможности [opportunity] для международного сотрудничества. 2) Вы, случайно, не знаете, почему поезд опаздывает? 3) Говорят, что груз задержан [to hold up] на таможне. 4) Судя по всему, этот участок пути скоро будет открыт для движения. 5) Сообщили, что новая железнодорожная линия будет на 40 км короче, чем старая. 6) Я случайно встретил его на станции. 7) Ты непременно опоздаешь на поезд, если не [unless] поторопишься. 8) Вероятно, она забыла зонт в автобусе. 9) Стальные вагоны, конечно, более безопасные и надёжные, чем деревянные. 10) Вряд ли он поможет вам. Он сейчас занят. 11) Ожидалось, что результаты эксперимента будут опубликованы в журнале.

Ex.17. Read and translate the following sentences paying attention to the construction Complex Object.

A. 1) They expected him to buy a more expensive car. 2) We didn’t expect this information to be announced on the radio. 3) Do you know Samuel Morse to have been a painter by profession? 4) We know many railway lines to have been damaged during the war. 5) Scientists believe new laser devices to be widely used in medicine. 6) I wish a taxi to wait for me 15 minutes. 7) The manager made Mary copy the report again. 8) Many people saw the bridge collapse. 9) They watched the plane go up until it became quite a small spot up in the sky. 10) They did not notice us pass by. 11) Do you want a porter to carry your luggage to the compartment?

B. 1) Nobody expected the president of the company to come to the party. 2) Twice a year people see birds fly south and north but we don’t know how they find their way. 3) I wouldn’t like this report to be discussed in my absence. 4) What made you change your mind? 5) Carrying out the experiments with electric telegraph S. Morse noticed a pencil make a wavy line when connected to an electric wire. 6) The excellent properties of Damascus steel made metallurgists of the whole world look for the lost secret of its production. 7) Who allowed you to take these documents? 8) Bad weather conditions made pilots switch over to automatic control. 9) Nowadays people can watch on television the cosmonauts work in space, “Lunokhod” move on the surface of the Moon and Olympic Games take place on the other side of the globe. 10) Socrates is known to be the great Greek philosopher and orator. A talkative young man wanted Socrates to teach him oratory. He begged Socrates to hear him speak on some subject. Socrates let him talk as much as he liked and then said: «You must pay me double price because I’ll have to teach you two sciences: how to speak and how to hold your tongue! »

Ex.18. Make up sentences and translate them into Russian.

We The director The scientists wanted their discovery to be repaired as fast as possible to drive so fast to be sent by airmail.
The chief engineer
I
Everybody
The news programs
ordered
don’t want
didn’t expect
consider
the electric current
despite these devices
his letters
the plane
to be the motion of electrons
through an electric conductor.
to land safely.
to return so soon.
to produce great changes in
the field of electronics.

The ticket inspector
We
A lot of people
Nothing
The passengers
She
I
noticed
could make
didn’t hear
saw
made
didn’t feel
watched
the sportsmen
two passengers
the car
the train
me
the children
him
change his opinion.
jump on to the running tram.
disappear round the corner
of the street.
start.
come up because the radio
was making a lot of noise.
jump with parachutes.
get off the bus because they
didn’t pay fares.

Ex.19. Complete the following sentences using infinitives with to or without to.
Model: Have you ever seen them__? → Have you ever seen them help their friends?
1) I would like my friends___. 2) His parents expect him___. 3) We saw her___. 4) We heard
them___. 5) We watched the train___. 6) I suppose her___. 7) The teacher didn’t let the
students___. 8) Nobody expected him___. 9) We saw the car___. 10) I don’t think him___. 11)
They made us___. 12) They believed him___. 13) You can’t make me___. 14) We know him___.
15) The teacher does not consider him___. 16) I heard you___.

Ex.20. Translate the following sentences from Russian into English using the
construction Complex Object.
1) Мы не ожидали, что он отложит обсуждение этого проекта. 2) Я знаю, что она
проводит научно-исследовательскую работу в области [field] химии. 3) Мы полагаем,
что ты справишься с [to cope with] этой работой. 4) Мне бы не хотелось, чтобы ты опаздывал.
5) Вы не видели, как произошла авария? 6) Водитель такси отказался взять чек; он хотел,
чтобы пассажир заплатил наличными [in cash]. 7) Мы хотели, чтобы он рассказал нам о своей
поездке в Лондон. 8) Ты знаешь, что они уехали за границу два дня назад? 9) Они надеялись,
что эксперимент окажется удачным. 10) Я слышал, как он рассказывал эту историю много
раз. 11) Я думал, что вы встретите меня на вокзале.

Ex.21. Read and Smile. Translate the following story into Russian. Try to find the
sentences with the construction Complex Object (five sentences are a good result but
maybe you will be able to find more).

Linda, a girl of thirty, wanted any young handsome man to propose to her. But nobody
turned up and she had only her dreams.

It was midnight, she was lying on the couch, her eyes were closed and she was dreaming
about her prince who was sure to come. It was quite dark in the room and suddenly she felt a
gentle wind blow and then heard somebody enter the room. She opened her eyes and saw a
young handsome man lean over her dressing-table. It must be him, the prince she had been
dreaming of for such a long time. And she burst out crying and saying: “Darling! Dearest!
You’ve come at last!” These words made him shudder. She noticed the expression of his face
change suddenly. “I’m no darling of yours,” protested the man. “But yes, you are!” answered
Linda with determination. And she tried to embrace him. “Leave me alone, can’t you see, I’m
not a boy-friend of yours! I’m only a burglar!” And Linda saw the young man rush out of the room.

Ex.22. Translate the following attributive groups. What parts of speech are the attributes expressed by?

A
- the city power supply system
- the departing and arriving trains
- low cost of transporting freight
- the devices to be packed into the boxes
- the problem of increasing train speeds
- the computers to be supplied by this firm
- the railway line laid down through forests and marshes
- the time of covering each section of the track
- a cargo weighing several tons
- improved methods of constructing
- the opportunity of traveling free of charge
- a tunnel to be bored through the mountain
- the cost of repairing the damaged cars
- goods to be carried in large-tonnage containers

B
- мост, соединяющий два острова
- правила дорожного движения
- пути улучшения пассажирского обслуживания
- часы, которые нужно отремонтировать
- шпалы, сделанные из стали
- временный мост
- грузовой поезд, состоящий из 60 вагонов
- новые приборы, которые будут использоваться для проведения опыта
- интенсивное движение
- билеты, купленные заранее
- возрастающая стоимость топлива
- оборудование, которое необходимо заменить
- дорога, построенная недавно

Ex.23. Find grammar mistakes in the following sentences and correct them. The number of mistakes is pointed out in brackets.

1) The accident resulted to a traffic jam. [1] 2) The first self-propelled vehicle in Russia has been made Ivan Kulibin in the 18th century. [2] 3) The shuttle-train cover the distance from London in Paris in 3 hours 40 minutes. [2] 4) Wooden sleepers treat with creosote to prevent it from decay. [2] 5) Where has been a two-speed escalator developed? [1] 6) Nowadays the air over large cities is been contaminated by transport and industry. [2] 7) Not all the necessary things have been buyed for our trip that is why the departure have been postponed. [2] 8) Tomas Edison began working at the railway, when newspapers and snack he were selling. [2] 9) The construction the first steam
A locomotive in Russia will be connected with the name of the Cherepanov. [3]

10) A totally new ticket-vending systems has been install for our terminal. [3]

11) When was proposed the project of constructing of the Channel Tunnel? [2]

Ex.24. TEST. Choose the correct variant of the predicate.

1) Dad phoned us and asked if our luggage ___ already ___.
   a) is packed b) was packed c) had been packed

2) You can’t take this tape-recorder because it ___ yet.
   a) was not repaired b) has not been repaired c) is not repaired

3) Tickets ___ usually ___ long before the train departure.
   a) are sold b) have sold c) are being sold

4) I was late because of my watch. It ___.
   a) stops b) is stopping c) has stopped

5) We ___ the old engine by a new and more powerful one.
   a) have replaced b) have been replaced c) were replaced

6) When we arrived in London, the famous Tower Bridge ___.
   a) will be reconstructed b) was reconstructing c) was being reconstructed

7) I was told that the schedule of this train ___ recently ___.
   a) has been changed b) was changed c) had been changed

8) Before the invention of steel all the railway cars ___ of wood.
   a) were being made b) were made c) had been made

9) The workers always ___ the carriages before the train departure.
   a) inspect b) are inspecting c) are inspected

10) Before starting the car the driver ___ the engine.
    a) had examined b) has examined c) was examined

11) Mercury ___ at 357.25 degrees Centigrade.
    a) had boiled b) boils c) is boiling

12) I regularly see him at the tram stop, but I ___ him since Monday.
    a) don’t see b) haven’t seen c) didn’t see

*The results of the test: If your score is 10-12 correct answers, you are doing just great; 8-9 stand for good knowledge; 6-8 mean you have some problems; if the number of your correct answers is less than 6, go and learn the rules.

Ex.25. Put questions to the underlined words.

1) He has traveled by plane just once. 2) They learnt about the railway accident from the newspaper. 3) Our train departs late in the evening. 4) Plenty of sand will be required for building the road. 5) This distance can be covered by train in an hour. 6) Lorries were moving slowly along the mountain road. 7) The Railway International Journal publishes a lot of articles about the construction of high-speed railways all over the world. 8) The passengers have been just invited to take the train. 9) The mechanic replaced some out-of-date parts of this machine. 10) We suddenly discovered that we had lost our way. 11) Damages due to the computer’s error were assessed at $1,000. 12) The first automobiles appeared on the roads at the end of the 19th century. 13) Hungary is situated in the center of international trade routes, that is why freight traffic is constantly increasing. 14) He was fined for careless driving. 15) For several miles the road runs through a thick forest. 16) The electric equipment has been manufactured in France. 17) Refrigerator cars are widely used for carrying perishable goods. 18) They had to stop to fuel the car. 19) Tunnels are built for direct movement of automobiles or trains through mountain ranges or under rivers.
TEXT A

Read and translate the text using a dictionary if necessary.

CHANNEL TUNNEL

(Part 1)

The English Channel (Frenchmen call it “La Manche” – which means ‘the sleeve’) is one of the world's most extraordinary pieces of water. For centuries, the Channel has been Britain's defense against invaders. It has also been the way to the Continent. Sailors know it as perhaps the most dangerous sea channel in Europe. Over the years, people have crossed the tunnel by balloons, canoes, rowing boats, parachutes, water skis and by swimming! The British seem to enjoy using the strange methods of crossing the Channel, using everything from a car to a bed.

Connecting the Isles of Great Britain to mainland Europe by means of a tunnel is an idea that appeared more than 200 years ago. Nevertheless we can name very few projects against which there existed a deeper and more powerful prejudice than the construction of a railway tunnel between Dover and Calais. The objections have been cultural, political and, of course, military. The British government objected to the scheme mainly because they thought that the enemy could easily invade England through such a tunnel.

It can be said that the long history of the Channel Tunnel began in 1802 when a French engineer, Albert Mathieu, according to the order of Napoleon, worked out a project of a tunnel to link France with England. But his project was not carried out, because the war between these countries began in 1803 and the Britons were glad that they were separated from the French by the Channel.

Seventy years later, a British colonel, Ernst Beaumont, began tunneling his way out of his native country using equipment that he designed himself, until he was stopped on grounds of national security. In 1950s a research group was set up to study the possibility of the Channel Tunnel construction. In 1963 this group submitted its report to the British and French governments. But when they were to make a final decision about the Channel Tunnel, the British Government refused from its construction because of financial difficulties.

Only in 1987 the question of the Channel Tunnel was studied afresh by a group of French and British engineers and the work actually began. They agreed to start constructing the Eurotunnel, as it was called, on both English and French coasts. The Tunnel was bored under the sea through a layer of dense chalk which is known to be free of cracks and allows water to penetrate it slowly. Saturday, December 1, 1990 was not an ordinary day in the Channel’s long history. At 11.00 a.m. two miners, one Frenchman and one Englishman, cut through the last few centimeters of chalk separating the UK from Europe. The Tunnel was officially opened for traffic on May 7, 1994.

(Part 2)

The Channel Tunnel actually consists of three tunnels: the two running tunnels and the service tunnel. Single-track railway lines are laid down in each of the running tunnels. Normally, one of them carries passenger and freight trains from Britain to France and the other carries trains in the opposite direction. If one of the running tunnels is closed for maintenance, the other is used for train movement in both directions. A smaller third tunnel lies between the two train tunnels. It is called the service tunnel. There is a roadway inside it, so maintenance workers and emergency teams can reach any point of the ‘Tunnel system in their road vehicles. The service tunnel is linked to the running tunnels at regular intervals by cross-passages. In case of emergency or a train breakdown the passengers will leave the train through one of the cross-passages into the service tunnel where road vehicles will evacuate them to a safer place.

The total length of the Tunnel is about 50 km (3.7 km is laid underneath French territory; 9 km is laid underneath British territory and 37 km of the line is constructed under the waters of the English Channel). The electric trains run every 3 minutes during peak hours, providing the carrying capacity of 4,000 vehicles per hour in both directions. A typical passenger shuttle consists of 26 wagons. 13 double-deck carriages are used for carrying cars of average size; another 13 single-deck
wagons are used for transporting buses and vans. Freight shuttles consist of 25 single-deck wagons. Each of them is capable of carrying a vehicle weighing up to 44 tons. Two electric locomotives are coupled in front and at the rear of each shuttle.

The time of crossing the Tunnel is 35 minutes, about an hour less than by ferry. Passengers and drivers remain in their vehicles. The gauge of the tunnel railway is standard that’s why the tunnel can be used for international passenger and freight trains.

Original estimate of construction cost was 7.2 billion dollars, but cost to date is 13.1 billion dollars shared between Britain, France and other investors. So far the project has not been quite profitable and still needs more investments.

The Tunnel personnel do its best to make passengers feel comfortable and safe during the crossing. But as it was mentioned by the commercial director of the Tunnel, they still have many serious problems and one of them is security. Nevertheless, the authorities are sure to be able to solve all the problems successfully.

Notes: ¹running tunnel – эксплуатационный тоннель
²service tunnel – служебный тоннель
³cross-passage – поперечный переход

Ex.26. Answer the following general questions:
1. Was the first design of the Channel Tunnel proposed in 1851?
2. Had only two projects been considered before the actual tunneling began?
3. Did the construction proceed very quickly?
4. Are double-track railway lines laid down in the running tunnels?
5. Is there a roadway inside the service tunnel?
6. Do the electric trains operate in the Channel Tunnel?
7. Does a typical passenger shuttle consist of 26 wagons?
8. Is the time of crossing the Channel Tunnel 30 minutes?
9. Has each shuttle two electric locomotives coupled in front and at the rear?
10. Can the Tunnel be used for international passenger and freight trains?

Ex.27. True or false? Correct the false statements.
1) The first project of the Tunnel was worked out in 1802. 2) The English engineer was the first to propose this project. 3) The construction of the Tunnel was in progress when the war (1803) began. 3) Ernst Beaumont was the second Frenchman to propose the project of the construction. 5) He began constructing the Tunnel, and the work was successfully completed. 6) The third project was proposed by a group of French, English and American engineers. 7) This project was approved by both French and English governments. 8) France opposed to the tunnel construction because of financial difficulties. 9) The construction actually began in 1988. 10) The work proceeded very slowly and was completed only 20 years later. 11) The Tunnel was opened for traffic on May 1, 1994. 12) The total length of the Tunnel is 37 km. 13) Passengers are carried in trains but freight is transported in horse-drawn carts. 14) The traffic frequency of trains is 4,000 vehicles per hour. 15) One can cross the tunnel on foot or by bicycle. 16) The project is very profitable.

Ex.28. Complete the following sentences.
1) The English Channel is also called ___. 2) Sailors know the English Channel as ___. 3) People have crossed the tunnel by ___. 4) The idea of the tunnel construction ___. 5) The British government objected to ___. 6) The first project of the tunnel ___. 7) Ernst Beaumont was not allowed to ___. 8) In 1950s a research group was set up ___. 9) In 1963 the British government refused ___. 10) The Tunnel was opened for traffic ___. 11) The Channel Tunnel actually consists of ___. 12) If one of the running tunnels is closed ___. 13) A smaller third tunnel ___. 14) There is a roadway ___. 15) The service tunnel is linked to ___. 16) In case of emergency or a train breakdown ___. 17) The total
length of the Tunnel___, 18) The electric trains___, 19) A typical passenger shuttle___, 20) Freight shuttles___, 21) Two electric locomotives are coupled___, 22) This railway is very convenient for drivers because___, 23) The gauge of the tunnel railway___, 24) So far the project___, 25) The Tunnel personnel___.

Ex.29. Here are the answers. Write the questions.

1) Nearly 200 years ago. 2) Albert Mathieu. 3) Because of financial difficulties. 4) On grounds of national security. 5) Only in 1988. 6) About six years. 7) On May 7, 1994. 8) About fifty kilometers. 9) 4,000 vehicles per hour. 10) Two main single track tunnels with a service tunnel between.

TEXT B
Read the following text to find answers to the given the questions.

PROGRESS IN TUNNEL ENGINEERING

a) When did people begin tunneling? b) Where were the first tunnels built? c) What were tunnels built for?

Tunneling is difficult, expensive and dangerous engineering work. Tunnels are built to provide direct automobile or railway routes through mountain ranges or under rivers. Before the 19th century men had not acquired enough skill in engineering to carry out extensive tunneling. Tunnels, however, were known in ancient times. The first-known tunnel was dug in Babylon in about 2180–60 BC. It passed under the Euphrates River and connected the royal palace with a temple. An early Greek tunnel was completed in 687 BC on the island of Samos as part of an aqueduct system. The Romans built many aqueduct tunnels throughout their vast empire. Their greatest feat was a 3.5-mile (5.6-kilometer) tunnel to drain Lake Fucino in Italy to create Fucino Basin. Few tunnels were built during the next thousand years. Some irrigation tunnels were constructed in Spain during the early 1400s, and in about 1450 a project was begun in the Maritime Alps [Приморские Альпы] to link Nice and Genoa. This work, however, was never completed.

By the 17th century tunnels were being constructed for use as canals. During the 19th and 20th centuries the development of railroad and, later, motor-vehicle transportation led to a tremendous expansion worldwide in the number of tunnels and in their length.

Early tunnel-building techniques varied. The Egyptians used copper saws that were capable of cutting soft rock, while the Babylonians constructed masonry tunnels. The Romans tunneled through solid rock by heating the rock face with fire and then rapidly cooling it with water, causing the rock to crack. Tunnel building has always been hazardous, and often hundreds or even thousands of workers died constructing ancient tunnels. The development of modern tunneling technology has also included vast improvements in worker safety.

a) When was the first Alpine tunnel built? b) How is it called? c) What new device was used during tunneling for the first time?

Ever since the early days of civilization in Europe the Alps have been a barrier to the movements of people. The first Alpine tunnel to be constructed was the Mont Cenus tunnel. This great project dates back to 1857. This tunnel is of great technical interest because at that time the only way to get through the rock was to use hand tools. At first the construction advanced very slowly. In fact, if it had continued at the initial pace, it would have taken 5 years to complete the tunnel! However, with compressed air drills and dynamite being introduced, progress was accelerated. Work on the Mont Cenus tunnel started in August 1857 and finished in December 1870.

a) What is the name of the second tunnel cut through the Alps? b) What is the length of the tunnel? c) Why was it dangerous to build tunnels at that time?

The next great and extremely difficult task was the construction of the St. Gotthard tunnel. Italian and Swiss engineers started working on this project in 1872. This tunnel 9.3 miles long was completed 9 years later as compared with 14 years required to make the Mont Cenus tunnel. It should be noted that during the period of construction no less then 800 men lost their lives because of poor
ventilation. The only means of ventilating was the compressed air exhausted from the drills. It was so insufficient that the death rate among the workers was extremely great. Needless to say that the ventilation ought to have been much better.

a) What is the longest tunnel cut through the Alps? b) What was done to improve ventilation in the course of tunneling? c) Why was a smaller bore (диаметр тоннеля) adopted?

Both the Mont Cenus and the St. Gotthard tunnels are known to be single tunnels. But when it was decided to bore the Simplon tunnel through the Alps, a different scheme was adopted because geological conditions in this part of the mountains were not simple. The planned length of 12.3 miles was greater than had been done before. According to the project two tunnels were cut, side by side, with transverse galleries connecting them at certain intervals. In this way ventilation was greatly improved and the removal of soil was made much easier. Each tunnel could take only one railway track, so a smaller bore was adopted. Had the tunnel been made the same size as the earlier ones, it might never have been completed. These arrangements made the construction much safer.

TEXT C

Read the text and translate it with a dictionary if necessary. Find out what caused the Tay Bridge and the Tacoma Narrows Bridge disasters and what materials were used for constructing bridges.

BRIDGE CONSTRUCTION

(1) The first bridges were all designed empirically, from the experience gained by previous failures and successes. The history of bridge construction knows many examples when the bridges were built without basic knowledge of Mathematics, which resulted in great tragedies. Engineering failures, although often very costly in life and money, taught extremely valuable lessons.

(2) You must have heard of Tay Bridge disaster which took place at the end of the last century. The Tay Bridge was designed by Thomas Bouch and opened in June 1878. It was two miles long and spoken about as one of the wonders of the world. But unfortunately principles of aerodynamics which should have been used in designing the bridge were yet unknown. So, the bridge was built without any knowledge about the force a wind can exert on the bridge.

On Sunday afternoon, the 28th of December, 1879, a storm broke out at that place. By evening the wind had reached the greatest force, and the people began to be nervous of what might happen to it in such weather. Some of them went to the end of the bridge to await the arrival of the evening train from Edinburgh. What they saw was a lighted train crossing the bridge. Suddenly the lights disappeared as the engine and coaches fell into the water. All aboard the train were lost and it was difficult to estimate the exact number of people, as some may have been carried out to sea.

(3) The Tacoma Narrows Bridge in the USA, which was the third longest bridge in the world, was opened for traffic in July 1940. Owing to its behavior in wind, it was nicknamed «Galloping Gertie». The deck of the bridge not only swayed sideways but large vertical waves appeared, and the roadway oscillated up and down under the action of quite moderate winds. Drivers of cars reported that when they crossed the bridge vehicles ahead of them completely disappeared from view and reappeared several times, owing to the wavy motion of the roadway.

From the very beginning it was clear that the bridge structure ought to have been strengthened. So, before the bridge was opened several attempts had been made to damp out the oscillations of the main span. But they all were not a success. In November 1940, only four months after the bridge was constructed, it collapsed under the action of wind of only 42 mph, whereas generally bridges are designed to withstand winds of 120 mph.

(4) Early bridges had to be built out of material close at hand. In tropical jungles suspension bridges were made of long bamboo poles. In the places where there were many forests it was wood. In northern areas pier bridges were built out of stone. In Middle Ages people constructed wooden beam type bridges. They were usually built on stone piers or wooden piles. Later, there appeared concrete and
metal bridges. Nowadays some people are experimenting with different unusual materials. One of them is paper. Everyone associated paper with weakness. But paper-makers consider it to be a very strong material. In order to prove it paper-makers built a paper bridge across a narrow canyon in Nevada.

The bridge covered a span of 32 feet. The designers calculated that it could safely span 80 feet. The structure is ten feet wide and four feet high. It took the engineers only two months to design the bridge, to test and construct it. For testing the engineers chose a truck which weighted 12,000 lb (pounds). This truck drove quite safely across the paper bridge. The engineers are sure that the bridge can take six times the truck load of 12,000 lb. The bridge itself weighs 9,000 lb. So, the structure is light enough to be laid into place by helicopter.

**LESSON SEVEN**

**COMPUTERS**

*Words and word combinations to be remembered*

<table>
<thead>
<tr>
<th>1) access – доступ</th>
<th>19) to perform – выполнять</th>
</tr>
</thead>
<tbody>
<tr>
<td>2) to calculate – вычислять, рассчитывать</td>
<td>20) to record – записывать</td>
</tr>
<tr>
<td>3) to click – нажимать, щелкать</td>
<td>21) to replicate – копировать</td>
</tr>
<tr>
<td>4) compatible – совместимый</td>
<td>22) screen – экран</td>
</tr>
<tr>
<td>5) data – данные, сведения; информация</td>
<td>23) software – программное обеспечение компьютера</td>
</tr>
<tr>
<td>6) to display – отображать, показывать</td>
<td>24) to solve – решать</td>
</tr>
<tr>
<td>display – панель, дисплей</td>
<td>25) to sound – звучать</td>
</tr>
<tr>
<td>7) to download – загружать</td>
<td>26) to spread (spread, spread) – распространяться</td>
</tr>
<tr>
<td>download – загрузка</td>
<td>27) to store – хранить</td>
</tr>
<tr>
<td>8) drawback – недостаток</td>
<td>28) to supply (with smth.) – обеспечивать, снабжать (чем-либо)</td>
</tr>
<tr>
<td>9) enormous – огромный</td>
<td></td>
</tr>
</tbody>
</table>
Ex.2. Describe the relationship between each of the following words (antonyms, synonyms, neither):

1. to occur/ to happen/ to take place
2. output/ input
3. to replicate/ to copy
4. permanent/ temporary
5. to store/ to delete
6. to provide/ to supply
7. drawback/ advantage
8. to calculate/ to compute/ to count
9. enormous/ huge/ vast/ gigantic
10. to turn on/ to turn off
11. particularly/ especially
12. to install/ to set
13. compatible/ incompatible
14. to display/ to show
15. to record/ to reduce
16. inevitable/ avoidable
17. to delete/ to destroy/ to eradicate
18. drawback/ disadvantage
19. to record/ to erase
20. to carry out/ to perform/ to execute
21. screen/ monitor
22. to erase/ to restore
23. main/ basic
24. to calculate/ to compute/ to count
25. to include/ to comprise
26. experienced/ inexperienced
27. access/ admittance
28. useful/ useless
29. mistake/ error
30. to download/ to reload

Ex.3. Match the words in the left column with their translation on the right.

<table>
<thead>
<tr>
<th>Left Column</th>
<th>Right Column</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) central processing unit</td>
<td>a) дисковод</td>
</tr>
<tr>
<td>2) database</td>
<td>b) лазерный принтер</td>
</tr>
<tr>
<td>3) disk drive</td>
<td>c) жесткий диск</td>
</tr>
<tr>
<td>4) floppy disk (diskette)</td>
<td>d) устройство вывода данных</td>
</tr>
<tr>
<td>5) hard disk</td>
<td>e) интегральная схема</td>
</tr>
<tr>
<td>6) input device</td>
<td>f) база данных</td>
</tr>
<tr>
<td>7) integrated circuit (chip)</td>
<td>g) периферийные устройства</td>
</tr>
<tr>
<td>8) laser printer</td>
<td>h) дистанционное управление</td>
</tr>
<tr>
<td>9) output device</td>
<td>i) гибкий диск (дискета)</td>
</tr>
<tr>
<td>10) peripherals</td>
<td>j) режим отключения экрана при паузы в работе</td>
</tr>
<tr>
<td>11) remote control</td>
<td>k) запоминающее устройство</td>
</tr>
<tr>
<td>12) storage device</td>
<td>l) центральный процессор</td>
</tr>
<tr>
<td>13) word processor</td>
<td>m) устройство ввода данных</td>
</tr>
<tr>
<td>14) screen saver</td>
<td>n) текстовой процессор</td>
</tr>
</tbody>
</table>

Translate the sentences given below from Russian into English.

1) Интегральная схема – это основной компонент любого электронного устройства. 2) Машиное обеспечение компьютера включает центральный процессор, который является сердцем и мозгом компьютера. 3) К периферийным устройствам относятся устройства ввода и вывода информации, а также запоминающее устройство. Все это оборудование соединено с центральным процессором. 4) Самое простое устройство ввода информации – это клавиатура. 5) Лазерный принтер относится к устройствам вывода информации. 6) Гибкий диск используется для записи и хранения информации. 7) Гибкий диск также называют дискетой. 8) Все программы, необходимые для работы компьютера, хранятся на дисках (жёстких дисках, гибких дисках, компакт дисках). 9) Дисковод – это электронный механизм, считающий информацию, которая находится на диске.

Ex.4. Translate the following sentences from English into Russian.

1) A new electronic device will calculate how far one can drive on the fuel left in the tank. 2) Thanks to computers we can process information millions times quicker. 3) Software is generally
stored on magnetic disks, compact disks or tapes. 4) I turned the volume right up, but there was still no sound. 5) Few people know that the first programmer in the world was Lord Byron’s daughter. 6) Great volumes of information are processed by means of modern electronic computers. 7) Up-to-date calculating machines perform adding, subtracting, multiplying and dividing very quickly. 8) Moving the mouse on the surface of the table we control the movement of the cursor on the screen. 9) The first-generation computers were very large and consumed enormous quantity of electrical power. 10) The automatic engine driver is a small computer with transducers. All the necessary data of train operation – distance, time of covering each section of the route, speed limits, etc. are programmed and fed into the computer’s memory. 11) I think the microphone or the recording mechanism is broken. 12) An icon is a small picture representing an object, process or function. 13) The new computer virus quickly spread worldwide. 14) Input signal comes from antenna.

**Ex.5. Read the following sentences replacing the Russian words by their English equivalents. Be careful with Grammar.**

1) He записывал the speech on his pocket tape-recorder. 2) I suspect there is ошибка in the software here. 3) The first time I played the магнитофон, it “ate” the tape. 4) While количество of electronic computers is constantly увеличивать, they are not использовать to full capacity because there is no adequate программное обеспечение. 5) Огромный amount of money was spent for this исследование but the scientists failed to достичь the required result. 6) The software for a computer system is often дороже than машинное обеспечение. 7) A modern computer comprises two основной parts – the hardware and the software. 8) You can move the pointer on экран with the help of the mouse. 9) You can type letters and other characters using this клавиатура. 10) He tried to вычислять how much he had spent on gasoline. 11) Память is the nerve centre of the computer, the section in which initial data, intermediate and final results хранить. 12) Дистанционное управление is a system for controlling machinery from a distance by radio signals. 13) The first computer weighed 30 tons and занимать 1,500 square feet of floor space. 14) The news распространяться quickly over the village.

**Ex.6. Cross out one word that does not have the same meaning as the other words.**

1) The hardware [includes; copies; consists of; comprises] a computer and all its peripherals such as the monitor, keyboard, mouse, printer, etc. 2) The hardest work in mines is now [performed; fulfilled; recorded; implemented; carried out] by robots. 3) Most phones now have memories for [accessing; storing; keeping] frequently used numbers. 4) Many countries have cable TV, a system [using; spreading; employing; applying] wires for transmitting TV programs. 5) A video phone has a device, which [allows; displays; permits; enables] us to see a room and the face of the person speaking. 6) Howard Aiken [stored; designed; developed] a number of automatic machines to solve differential equations. 7) The first electronic computers were like very large furnaces, consuming [enormous; basic; giant; huge] quantities of electrical power. 8) Computers can do many things that people do, but [faster; slower; swifter; quicker] and better. They [can; should; are able to] control trains or machines at factories, work out tomorrow’s weather forecast and even play chess, write poetry or compose music. 9) The preparation of computer [software; peripherals; programs] takes up as much, if not more time as the actual [production; manufacture; download] of the hardware and is by no means easier. 10) The research didn’t give the expected results because of the [drawback; error; blunder;
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mistake] in the [computation; calculation; installation].
11) [Going on; turning on; switching on] the tape-recorder, I immediately noticed that it was not working properly.

Ex.7. Fill in the blanks with the missing words. Consult the box.
1) The fire brigade arrived just in time, before the fire could ___.
2) Damages due to the computer’s ___ were assessed at $1000.
3) The information should be fed into the computer for ___.
4) How many letter keys are there on this computer ____?
5) This ____ needs four batteries to power it.
6) The music started playing and everybody looked at the ___.
7) Press this button to ___ the device.
8) Nobody knew how to set a ____ to switch off the monitor screen.
9) It took the operator some time to find the necessary ____.
10) The smallest ____ holds more information than 100 floppies.
11) You can get ____ to a great amount of information with the help of CD-ROM.
12) The ____ doesn’t work if you hold it in the air like a remote control.
13) People send ____ messages with the help of the Internet, a system that lets computers connect by telephone lines.
14) A ____ is used for sending and receiving copies of original documents via a phone line.
15) I heard a noise which ____ like a helicopter.
16) When I tried to ____ the tape it got stuck.

<table>
<thead>
<tr>
<th>access</th>
<th>e-mail</th>
<th>error</th>
<th>fax machine</th>
<th>file</th>
<th>hard</th>
<th>disk</th>
<th>screen</th>
<th>screen saver</th>
<th>processing</th>
<th>file</th>
<th>remote control</th>
<th>spread</th>
<th>rewind</th>
<th>switch on</th>
</tr>
</thead>
</table>

Ex.8. This quiz will help you “hack” terms you may encounter while surfing the Internet.
Translate the sentences given below.
1) He put cursor after the last typed word.
2) A network offers many opportunities for exchanging information.
3) Virus wreaked havoc with the bank’s accounting.
4) A man who breaks into, or “cracks”, computer systems is called a cracker.
5) In the film Mission Impossible Tom
Cruise enters a high-security area with the aid of a cracker. 6) Admittance was denied when the computer could not authenticate him. 7) One gigabyte is roughly a billion bytes. 8) E-mailers make use of symbols called smileys (or emoticons) for expressing their mood, emotions, etc. When viewed sideways, the emoticon [:­-) means I’m happy; [:­D] means I’m laughing; [:­:] means I’m indifferent; [:­:] means I’m flirting or being ironic; [:­:] means I did not like something; [%­:] means I have been staring at this screen for too long; [:­{)] means I have a moustache; [:­{)] means I wear glasses and so on. 9) Server is a central computer sharing resources and data with other computers on a network. 10) Modem is a connecting device between computers over a phone line. 11) A journalist submitted her article by modem. 12) The manuscript was compressed on a single floppy disk. 13) This password will help you to gain access to the computer.

**GRAMMAR REVIEW**

(Conditional Clauses. Different functions of the verbs to be and to have. Compound Conjunctions.)

**Ex.9. Translate the following sentences paying attention to Conditional Clauses.**

**A.** 1) If he repairs his car, we shall be able to drive to the country. 2) If we get up early, we shall reach the destination in time. 3) If he leaves for London by train, he will get there on Friday. 4) If you don’t write down this formula, you will forget it. 5) If it rains, we shall have to stay at home. 6) If he is not very busy, he will help us to repair the tape-recorder. 7) If you don’t hurry, you will miss the last commuter train. 8) If containers are used more widely, the freight rates will be greatly reduced. 9) Patty will get her driving license, as soon as she passes this test. 10) If they need the equipment urgently, we’ll deliver it by plane.

**B.** 1) If he lived nearer, we would see each other more often. 2) Where would you go, if you were on leave? 3) If the track were not properly repaired and maintained, it would soon become so uneven and rough that it would be dangerous for trains to run upon it. 4) Had I one million dollars, I would probably buy a yacht. 5) If we received a telegram from him, we would not worry. 6) Were I a scientist, I should invent a time machine. 7) Had the travelers cameras with them, they would take photos of the beautiful scenery. 8) If he were in the city, he would be present at our meeting. 9) If I were you, I would think twice before accepting his invitation. 10) If we could make a non-stop flight around the Sun in an airplane at a speed of about 300 km per hour, it would require 565 days to encircle it at the equator. 11) If there were no computers, they would have to be thought out.

**C.** 1) She would have noticed this mistake, if she had been more attentive. 2) I would have gone on an excursion with you, if I had known about it beforehand. 3) If we had known that you were there, we would have called on you. 4) If I had known of his arrival, I would have met him. 5) If he hadn’t work late, he would have caught his bus. 6) Hadn’t a passer-by helped us, we would not have found the way. 7) The new operator would not have broken this device if you had instructed him how to operate it. 8) The construction of the new railway line would have been finished much earlier if the weather conditions had been favorable. 9) If computers had not been invented, many problems would not have been solved. 10) How did it happen that you missed your stop? – I wouldn’t have missed it, if the conductor had announced the stops.

**Ex.10. Translate the following sentences paying attention to Conditional Clauses.**

1) If drivers were more attentive while driving, there would be fewer accidents on the roads. 2) Had you planned your time better, you would not have come at the station one minute before the train departure. 3) The train would have arrived on time if it had not been held up by the track repair works. 4) If you press this button, the device will start working. 5) It would take only 3.5 hours to get to Moscow from St. Petersburg if the speed of passenger trains were 200 km/h. 6) If the internal combustion engine had not been invented, the automobile industry would not have started to develop so rapidly all over the world. 7) If we did not have so heavy luggage, we would not take a
taxi. 8) If she would have gone there by air, she had come in time, but there were no tickets. 9) Had the tunnel been bored, the road would have been 30 km shorter. 10) If the weather conditions are favorable, the construction of the bridge will be completed in time. 11) Were electric motors used, cars would not contaminate the air, would be practically noiseless and very easy to control. 12) If we were to make a journey in a plane to the nearest star, we should have to travel for several thousand centuries.

**Ex.11. Translate the italicized parts of the sentences from Russian into English**

1) Если бы я был на твоёём месте, я бы не пропустил этого события. 2) Если бы ты прилетел на самолете, я бы встретил тебя уже в аэропорту. 3) Если бы ты прилетел позже, я бы уже уехал из города. 4) Если бы ты прилетел раньше, я бы уже был дома. 5) Если бы ты прилетел сутками ранее, я бы уже был дома. 6) Если бы ты прилетел сутками ранее, я бы уже был дома. 7) Если бы ты прилетел сутками ранее, я бы уже был дома. 8) Если бы ты прилетел сутками ранее, я бы уже был дома. 9) Если бы ты прилетел сутками ранее, я бы уже был дома. 10) Если бы ты прилетел сутками ранее, я бы уже был дома. 11) Если бы ты прилетел сутками ранее, я бы уже был дома. 12) Если бы ты прилетел сутками ранее, я бы уже был дома. 13) Если бы ты прилетел сутками ранее, я бы уже был дома. 14) Если бы ты прилетел сутками ранее, я бы уже был дома. 15) Если бы ты прилетел сутками ранее, я бы уже был дома. 16) Если бы ты прилетел сутками ранее, я бы уже был дома. 17) Если бы ты прилетел сутками ранее, я бы уже был дома. 18) Если бы ты прилетел сутками ранее, я бы уже был дома. 19) Если бы ты прилетел сутками ранее, я бы уже был дома. 20) Если бы ты прилетел сутками ранее, я бы уже был дома. 21) Если бы ты прилетел сутками ранее, я бы уже был дома. 22) Если бы ты прилетел сутками ранее, я бы уже был дома. 23) Если бы ты прилетел сутками ранее, я бы уже был дома. 24) Если бы ты прилетел сутками ранее, я бы уже был дома. 25) Если бы ты прилетел сутками ранее, я бы уже был дома. 26) Если бы ты прилетел сутками ранее, я бы уже был дома. 27) Если бы ты прилетел сутками ранее, я бы уже был дома. 28) Если бы ты прилетел сутками ранее, я бы уже был дома. 29) Если бы ты прилетел сутками ранее, я бы уже был дома. 30) Если бы ты прилетел сутками ранее, я бы уже был дома.
Ex.15. Look at the dictionary for the meaning of the following compound conjunctions: as...as, as long as, as high as, as wide as, as soon as, as well as, both...and, either...or, neither...nor, so that, the...the. Translate the sentences into Russian.

1) The traffic remained stationary so that the ambulance could pass. 2) The construction of both the bridge and the dam will be completed before the navigation season. 3) You can get to that part of the city either by bus or by underground. 4) As soon as the calculations are completed, we will begin the tests. 5) The more information we feed into a computer, the more correct answer we receive. 6) These students know neither German nor French. 7) The strength of this synthetic material is as high as that of steel. 8) You can stay here as long as the room is free. 9) The sun gives us both light and heat; it gives us energy as well. 10) The investigations at the Arctic research station are carried out daily in good as well as in bad weather according to a carefully worked out plan. 11) We decided to cross the mountains so that we could reach the railway station in the daytime. 12) The electric power is transmitted from the powerhouse to the trains either by means of a third rail or by means of an overhead system of wires. 13) The earlier children begin to play computer games, the quicker they learn to manipulate computers. 14) Inside the examination room we could neither smoke nor talk.

Ex.16. Fill in the blanks with the required compound conjunctions

1) ___ shorter the lever arm, ___ greater effort is needed to lift the weight. 2) ___ longer I think of your plan, ___ more I like it. 3) I could find him ___ at home ___ in the office. 4) ___ the comfort of the driver may be improved, the design of the seat was changed. 5) ___ the bridge ___ the tunnel will be constructed next year. 6) The invitations were sent beforehand ___ the delegates might arrive in time for the conference. 7) I shall leave ___ tonight ___ tomorrow. 8) I’ll telephone you ___ I return home. 9) I shall remember you ___ I live. 10) This book is ___ interesting ___ useful. 11) I gave him the book ___ he could prepare the task at home. 12) I shall stay with you ___ you need me. 13) ___ he ___ I know French. 14) Franklin is known all over the world ___ as a scientist ___ as a political leader. 15) ___ I arrive in the city, I shall phone you.

Ex.17. Read and translate the following sentences paying attention to the verbs to be and to have. State the function of the verbs in question.

to be: 1) Automatic block and other kinds of modern signaling are being widely introduced to ensure the safety of train movement at high speeds. 2) The road from the airport to town is to be reconstructed. 3) According to Charles Pearson’s project, the first lines of the London Underground were to be laid down close to the ground surface. 4) The train was to arrive at 5 o’clock but has not appeared yet. 5) We were to meet under the Big Clock at the station. 6) The first attempts in designing a robot engine driver were made in 1960s. 7) The insurance rate on my car is high because I live in a large city. 8) Liquid goods are carried in tank cars. 9) Local trains are to make stops at all railway stations. 10) The gondola car is a low-sided wagon without a roof. 11) At the last Metro station the engine driver is to move to the other end of the train. 12) The plane was to leave at midnight but its departure was delayed because of a heavy fog. 13) Although the railways are the main cargo haulers, motor transport carries the greatest number of passengers. 14) The traffic regulations are to be observed by both drivers and pedestrians. 15) A jet engine is the most powerful engine because the gases in it reach the temperature of over a thousand degrees. 16) As the rail joint is the weakest part of the track, it is necessary to use longer rails.

As the stop was a long one, the passengers got off the train. 18) If I am late, I shall take a taxi.

to have: 1) She had lost her keys, so we had to open the door by force. 2) A new ceramic engine has been developed. 3) You will have to call for her because she has a lot of luggage. 4) Have you understood how to use this device? 5) I have some spare time this week but next week I’ll have to start work. 6) Our efforts to start the car had failed, and we had to spend the night in a nearby village. 7) The matter is urgent. We have to phone her immediately. 8) Cars have been cleaned, inspected and repaired in the coach yard. 9) The first self-propelled car had to stop
every 100 yards to make more steam, because the supply of steam lasted only 15 minutes. 10) Not
having bought the tickets in advance they had to go to the station long before the train departure.
11) He had to take the whole device apart to discover the cause of the trouble. 12) John will have to
pay a wrong parking fine. 13) He has to take the whole device apart to discover the cause of the trouble.
14) Many new electronic devices have been developed to provide the safety of high-speed traffic.
15) This minibus has a rear door and easily detachable seats that is why it can be easily converted
for the transportation of the freight up to 800 kg. 16) The engine will have to be dismantled to repair
the damage. 17) An open-type passenger car has nine 6-berth compartments. 18) The main tracks
have been cleared of snow by snow-cleaning machines.

Ex.18. Put questions to the underlined words.
1) They traveled 2,000 miles by bus. 2) Most people go to work by subway in New York. 3) The
car has just stopped because there isn’t any more gas in the tank. 4) Arthur always drives at a high
speed. 5) All flights have been canceled because of the fog. 6) They are going to travel around the
world. 7) Stephen went into debt to buy that car. 8) The first buses in London were drawn by three
horses. 9) Teenagers can get a driving license at the age of fourteen. 10) We were waiting for the train
arrival on the platform. 11) Before each flight pilots ask for the information about the weather
expected. 12) All the necessary information is stored in the computer. 13) Metro trains run at 8
minutes headways. 14) Just beyond the bend, the river begins to narrow. 15) The builders will have
to explode the rock to construct the railway in this district. 16) We went to the cinema to pass the
time until the train arrived. 17) The subway trains are crowded during the rush hours. 18) The bus
service is so bad that it is almost impossible to get anywhere. 19) The schedule of this train has been
changed for the summer period. 20) The railway tunnel linking Great Britain and France was
officially opened for traffic on May 7, 1994. 21) In 1989, English computer scientist Timothy
Berners-Lee introduced the World Wide Web.

Ex.19. Find grammar mistakes in the following sentences and correct them. The number of
mistakes is pointed out in brackets.
1) He did not performed the task he had been given. [1] 2) What the engines do this plant
produce? [2] 3) Are you know the schedule this train? [2] 4) Already the bus is overcrowded, it will
not be able take all the passengers waited at the bus stop. [3] 5) The contract was not signed yet. [1]
6) His traveling expenses covered by the firm. [1] 7) While driving a car, you should not to speak
with your mobile telephone. [2] 8) This device can be repair; you don’t need to replace it on a new
one. [2] 9) In Russia many people had doubts about the possibility of using of steam engines in the
Russian winter. [1] 10) Some of the arch bridges constructing by the Romans 2,000 years ago is still
being used. [2] 11) The revolution in science and technology is affected not only economically
developed countries but also developing countries. [1] 12) An electric engine is most ecologically
friendly one because it is not contaminate environment with exhausted gases. [2] 13) One of the
most early railway bridge in the Great Britain called “Britannia” have survived to our days. [4] 14)
Does the train covers the distance from Moscow to Samara in 20 hours? [1] 15) The plane were late
because it has to make a forced landing. [2] 16) The remote control need 4 battery to power it. [2]

Ex.20. Read the following sentences using the predicates in the required tense and voice
forms. Translate the sentences from English into Russian.
1) If you [to lose – Present Perfect Active] your credit card, you should declare about it
immediately.
2) These boxes [to be – Present Indefinite Active] too small for this equipment; we [to need –
Present Indefinite Active] bigger ones.
3) The main tendency of our life is that computers [to use – Present Continuous Passive] more
and more intensively in all spheres of technology, science, medicine, education and everyday life.
4) No wonder the radio [not to work – Present Continuous Active], you [not to plug – Present Perfect Active] it.

5) After a high-speed monorail railway [to construct – Past Perfect Passive] in Tokyo, the problem of passenger transportation [to solve – Past Indefinite Passive].

6) Similar results [to achieve – Present Perfect Passive] by two scientists in the course of their work.

7) I [to find – Past Indefinite Active] the information about this invention on the Internet.

8) The construction of the new circular road which [to link – Future Indefinite Active] several districts [to start – Present Perfect Active] recently.

9) The ore [to transport – Present Indefinite Passive] from the mine to the processing plant by the railway.


11) The Internet [to bring – Present Perfect Active] new opportunity for businesses to offer goods and services online.

12) The text of the contract [to be – Future Indefinite Active] ready in an hour, the secretary [to type – Present Continuous Active] it.

TEXT A

Read and translate the text using a dictionary if necessary.

COMPUTER SYSTEMS

[1] A computer is known to be a device that has the ability to accept, store and process enormous quantities of data. Computers can be divided into three main types, depending on their size and power.

*Mainframe computers* are the largest and most powerful. They can handle large amounts of information very quickly and can be used by many people at the same time. They usually fill a whole room and are sometimes referred to as computer installations. They are found in large institutions and government departments.

*Minicomputers*, commonly known as minis, are smaller and less powerful than mainframes. They are about the size of an office desk and are usually found in banks and offices. They are becoming less popular as microcomputers are being improved.

*Microcomputers*, commonly known as micros, are the smallest and least powerful. They are about the size of a typewriter. They can handle smaller amounts of information at a time and are slower than the other two types. They are ideal for use as home computers and are also used in education and business. More powerful microcomputers are being gradually produced; therefore they are becoming the most commonly used type of computers.

[2] A computer can do very little until it is given some information. This is known as the input and usually consists of a program (a set of instructions, written in a special computer language, telling the computer what operations and processes are to be carried out and in what order they should be done) and some data (the particular information that has to be processed by the computer). Data brought out of the computer is known as output. Information in the form of programs and data is called *software*.

[3] The pieces of equipment making up the computer system are known as *hardware*.

The most important item of hardware is the CPU (Central Processing Unit). It contains the processor and the main memory. The processor is the brain of the computer. It does all the processing and controls all the other devices in the computer system. The main memory is the part of the computer where programs and data being used by the processor can be stored. However, it has a limited capacity.

[4] All the other devices in the computer system, which can be connected to the CPU, are known as *peripherals*. These include input devices, output devices and storage devices.
**An input device** is a peripheral, which enables information to be fed into the computer. The most commonly used input device is a keyboard, similar to a typewriter keyboard.

**An output device** is a peripheral, which enables information to be brought out of the computer, usually to display the processed data. The most commonly used output device is a specially adapted television known as a monitor or VDU (Visual Display Unit). Another common output device is a printer. It prints the output of the CPU onto paper.

**A storage device** is a peripheral used for the permanent storage of information. It has a much greater capacity than the main memory and commonly uses magnetic tape or magnetic disks as the storage medium.

These are the main pieces of hardware of any computer system whether a small “micro” or a large mainframe system.

**Ex.21. Match each component in column A with its function in column B.**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) storage device</td>
<td>a) It allows data to be entered. With it you communicate with your computer.</td>
</tr>
<tr>
<td>2) monitor</td>
<td>b) It is used to introduce coordinates into a computer. Moving it on the surface of the table we control the movement of the cursor on the screen.</td>
</tr>
<tr>
<td>3) keyboard</td>
<td>c) It does all the processing and controls the peripherals.</td>
</tr>
<tr>
<td>4) main memory</td>
<td>d) It is used to record, store information and to pass data to or from another computer.</td>
</tr>
<tr>
<td>5) processor</td>
<td>e) It is used to print texts or graphics.</td>
</tr>
<tr>
<td>6) printer</td>
<td>f) It provides permanent storage for programs and data.</td>
</tr>
<tr>
<td>7) mouse</td>
<td>g) It holds the programs and data being used by the processor.</td>
</tr>
<tr>
<td>8) floppy disk</td>
<td>h) It is used to rotate disks.</td>
</tr>
<tr>
<td>9) cursor</td>
<td>i) It is a mark on the display's screen showing the place where actions are taking place.</td>
</tr>
<tr>
<td>10) disk drive</td>
<td>j) It displays the processed data.</td>
</tr>
</tbody>
</table>

**Ex.22. Answer the following questions.**

1) What is the computer? 2) What are the main types of computers? 3) What type of computers is the most suitable for home use? 4) What are the reasons of buying home computers? 5) What is a program? 6) What is data? 7) What is information in the form of programs and data called? 8) What is hardware? 9) What is the most important item of hardware? 10) What does the Central Processing Unit contain? 11) What are the functions of processor and main memory? 12) What devices are called peripherals? 13) What are the functions of input device, output devices, storage device? 14) Do you like playing computer games? 15) What are your favorite video-games (shoot them all, walk-through, role-playing games, or intellectual games)? 16) How often do you work with the computer? 17) Does knowledge of English help to operate the computer better? 18) Who can be called a computer wizard? Do you attribute his/her success to hard work or talent? 19) Are you baffled by computer language?

**TEXT B**

*Read and translate the following text using a dictionary.*

**FEED IN ENGLISH, PRINT OUT IN FRENCH**

Once upon a time, according to a much told story, a computer was set a task of translating “traffic jam” into French and back into English. The machine buzzed, clicked, blinked its lights and eventually came up with...
Machine translation has come a long way since then. Computer translation systems are now widely used for various purposes. But although the efficiency of machine translation is rapidly improving, there is no question of human translators being made redundant. On the contrary, people and machines work together in harmony.

Today’s computers are of little value in translating literary works, where subtlety is vital; or the spoken language, which tends to be ungrammatical; or important texts, where absolute accuracy is essential. But for routine technical reports, working papers, and the like, which take up so much of the translation workload of the international organizations, computers are likely to play an increasing role. The method of operation will probably be for the machines to make a rough version, which the translator will then edit, correcting obvious errors, and where necessary referring back to the original.

If machines can translate languages, could they teach languages? Yes, say enthusiasts, although they doubt that the teacher could ever be totally replaced by a machine in the classroom. Good old teachers know best!

Ex.23. Answer the following questions and give the reason why you answer in this way, using words and word combinations given in the box.

What would you prefer (what would you rather do):

1) Communicate with a person or a computer? 2) Learn a foreign language with the help of a computer or a teacher? 3) Have a diagnosis stated by a computer or a doctor? 4) Have your marriage arranged by your friend or by a computer? 5) Play chess (games) with a person or a computer?

<table>
<thead>
<tr>
<th>heartless</th>
<th>unfeeling</th>
<th>soulless</th>
<th>indifferent</th>
<th>inhuman</th>
</tr>
</thead>
<tbody>
<tr>
<td>liable to error</td>
<td>subject to error</td>
<td>to provide an enormous variety of choice</td>
<td>to reduce the element of risk</td>
<td>it depends</td>
</tr>
</tbody>
</table>

TEXT C

Read and translate the following text using a dictionary.

VIRUSES AND VACCINES

The terms viruses and vaccines have entered the jargon of the computer industry to describe some of the bad things that can happen to computer systems and programs. Unpleasant occurrences like the March 6, 1991, attack of the Michelangelo virus will be with us for years to come. In fact, you need to check your IBM or IBM-compatible personal computer for the presence of Michelangelo before March 6 every year – or risk losing all the data on your hard disk when you turn on your machine that day. And Macintosh users need to do the same for another intruder, the Jerusalem virus, before each Friday the 13th, or risk a similar fate for their data.

A virus as its name suggests, is contagious. It is a set of illicit instructions that infects other programs and may spread rapidly. The Michelangelo virus went worldwide within a year. Some types of viruses include the worm, a program that spreads by replicating itself; the bomb, the program intended to sabotage a computer; and the Trojan horse, a program that covertly places illegal, destructive instructions in the middle of a legitimate program.

Although viruses can be destructive, some are quite benign; one simply displays a peace message on the screen on a given data. Others may merely be a nuisance, like the Ping-pong virus that bounces a “Ping-pong ball” around your screen while you are working. But a few could result in disaster for your disk, as in the case of Michelangelo.

There have been occasions when commercial software was released with a virus, but these situations are rare. Viruses tend to show up most often on free software acquired from friends. So before any diskette can be used with a computer system, it should be scanned for infection.

A virus may be dealt with by means of a vaccine, or antivirus, program that stops the spread of the virus and often eradicates it. The drawback of the antivirus program is that once you buy this type of software, you must continuously pay the price for upgrades as new viruses are discovered.
Ex.24. True or false? Correct the false statements.

1) The terms viruses and vaccines are used only in the language of medical officers. 2) These terms are used to describe some unpleasant occurrences that can happen to programmers. 3) The Michelangelo virus attacked the computer systems in March 1991 and went worldwide within a month. 4) You need to check your PC for the presence of the Michelangelo before March 6 every year. 5) The Jerusalem virus is known to appear on Monday the 13th. 6) A virus is a set of instructions that infects other programs. 7) The worm, the bomb, the Trojan horse are the names of computer games for children. 8) The Ping-pong virus is said to be the most dangerous and destructive one. 9) Commercial software is always released with various viruses. 10) Any diskette should be scanned for infection. 11) A virus may be dealt with by means of another virus. 12) The antivirus programs must be often updated because new viruses are discovered.

TEXT D

Read the text given below and guess the idea. Think about the title of the text.

The first computers appeared right after World War II in the USA, and since that time they have changed not only the lives of Americans. They have been changing the lives of people all over the world. At present wherever the man turns, he finds a computer working. Computers in banks can transfer money from one account to another. Computers are used to launch, guide and track spacecrafts and satellites; they help predict weather and earthquakes. They help people make long-distance and local telephone calls. Computers are also used when one reserves space on an airplane or a train. In medical labs computers have reduced the errors in testing, and they have saved doctors’ countless hours of work. Many stores use computers to keep track of sales and orders. Also, many stores use optical scanners to record purchases and total prices. A tiny computer chip controls your washing machine. Computers linked to TV, telephone and satellite networks spread information throughout the world. Without special training it is impossible to understand exactly how a computer works. Nevertheless, many people use computers in their daily lives. Computers are everywhere. They are so much a part of our lives that we usually don’t even know they are here. Computers have become the foundation of the modern working world. Today, virtually all types of jobs use them to some degree and all the countries are affected by the “computer revolution”. In the future computers will be a million times faster than they are today. They will become easier to use, but anyone who has not learnt how to use the new technology will be seriously disadvantaged, particularly in the field of employment.

Ex.25. Answer the questions to the text you have read.

1) When did the first computers appear? 2) Was it in England that the first computers began to be used? 3) Computers are used everywhere, aren’t they? 4) Is it hardly possible for people to use computers in their everyday life? 5) What can computers do in banks? 6) What are the other spheres where computers may be used? 7) It is impossible to understand exactly how a computer works without special training, is it? 8) Do many people use computers in their daily lives? 9) Have computers become the foundation of the modern working world? 10) What countries are affected by the “computer revolution”? 11) Will computers be a million times slower in the future than they are today? 12) The problem is that in the near future computers will become more and more complicated to use, isn’t it?

TEXT E

Read and Smile. Translate the text using a dictionary if necessary.

MOTHER SHOULD HAVE WARNED YOU!

If you can count on one person in this life, it is your mother. Particularly, you can rely on any mom anywhere to find the perils inherent in any situation. Indeed, no self-respecting mom ever missed an
opportunity to caution her children about the dangers of everything from comics to swimming pools. What would mom say about PCs?

We have tried to find an answer to this question, and after months of exhaustive polling of computer savvy moms around the country (there are more than you think), we’ve assembled the following list of ten PC perils your mom should have warned you about. Take them seriously. Mom knows what she is talking about.

1) **Playing too much computer games will make you go blind.** Go outside, get some fresh air. Do you want to look like a ghost all your life?

2) **Never dial into strange bulletin board systems.** Who knows what kind of riff-raff you will find there? Just last week, I saw a show about the kind of trash that hangs out on these systems.

3) **If you are so interested in information, why don't you go to the library?**

4) **You don't have to rush out and buy every trendy new product.** So what if all your friends are buying it. You wouldn’t jump off a bridge just because everyone else did, would you?

5) **Be sure to write your name and phone number on all your floppy disk sleeves.** That way, if they ever get mixed up with someone else’s, you can tell which one is yours.

6) **Never put a disk into your drive if you don't know where it has been.** Your computer might catch a disease or something. Don’t laugh, it is not funny. That’s what happened to the Kelly boy, and his PC hasn’t been the same since.

7) **Sit up straight, and for heaven’s sake, not so close to that monitor screen.** What do you want to do, go blind and look like a pretzel? Exercise at your desk occasionally rotating your wrist, rolling your shoulders, and stretching. Better yet, get up and walk around.

8) **Always keep your icons and windows neatly arranged.** A cluttered desktop is the sign of a cluttered mind.

9) **Mind your language.** It is very rude, and frankly speaking, I don’t like your language when the computer doesn’t work the way you think it should.

10) **Always eat your vegetables.** Okay, so it doesn’t have anything to do with computers, it’s good advice anyway. And who said mothers had to be consistent?

**Ex.26. Go back to the text and find the English equivalents to the following Russian phrases:**

присущий; упустить возможность; действительно; “кумекающие” в компьютерах (эксп.); ослепнуть; мусор; электронная доска объявлений; модный; наклейка на дискете; рабочий стол; честно говоря; хороший совет; в любом случае; последовательный.

**Ex.27. Answer the questions:**

1) What do all moms usually warn their children about? 2) What were you warned about when a child? 3) What advice did you take seriously? 4) What are the top three PC perils in your opinion? 5) What of them would you warn your children about?

**TEXT F**

The students of different Moscow technical higher schools were asked to write the compositions in English on the following topics: 1) Hackers of today. 2) Pluses and minuses of computers. 3) Internet. Read them and choose the best composition in your opinion. Explain your choice.

**HACKERS OF TODAY**

Hackers, having started as toy railroad circuitry designers in the late fifties, are completely new people now. Once turned to computers, they became gods and devils. Nowadays holders and users of the World Wide Web hide their PCs under passwords when the keyword "hacker" is heard. When and how did this change take place? Why are we so frightened of Hacker The Mighty and The Elusive?
One of the legends says that hackers have changed under the influence of “crackers” – the people who liked to talk on the phone at somebody else’s expense. Those people hooked up to any number and enjoyed the pleasure of telephone conversation, leaving the most fun – bills – for the victim. Another legend tells us that modern hackers were born when a new computer game concept was invented. Rules were very simple: two computer programs were fighting for the reign on the computer. The results of this game are two in number and are well known: hackers and computer viruses. One more story tells that the “new” hackers came to existence when the two students of the Massachusetts Institute of Technology found an error in a network program. They informed people, responsible for the network, about this mistake but with no result. The offended students wrote a code that completely paralyzed the network and only after that the error was fixed. By the way, those students founded The Motorola Company later.

Today, when the Internet has entered everyone’s house there is no shield between a hacker and your PC. You can password yourself up, but then either a hacker will crack your PC anyway or nobody will enter your site, because passwords kill accessibility. If your PC is easy to access no one can guarantee what will happen to your computer – hackers, you know them.

Monster? Chimeras? No! Every hacker is a human being and every hacker has his soft spots: good food, pretty girls or boys, classical music, hot chocolate at the fireplace, apple pie on Sunday. First of all, hacker is a connoisseur, a professional with no computer secret out of his experience. And how he uses his skill and knowledge depends on him, God, and Holy Spirit.

KEEP CLICKING!

Computers spoil your eyes, computers are bad for your nerves, computers – oh, these computers! Don’t believe it! Why don’t people criticize guns that kill much more people? “That is life”, you say. Yes, but how can you blame such wonderful thing like a computer, when you can’t even use it properly? All evils imputed to computers are the results of our inexperience.

How can you blame computers for spoiling your eyes if you play GTA Vice City for hours? How can a computer be bad for your nerves if you cry out: “Damn, stupid piece of…” (you know what) every time it hangs because of your being not too smart to tell it what you want to be done.

Come on, lighten up, computer is just a piece of hardware and software mixed. And if you don’t know or can’t decide how to make this explosive cocktail, ask yourself just one question: “Who is more stupid of you two?” Of course, I’m not a computer maniac beating everyone blaming an innocent machine. But there is one little thing people can’t or don’t want to understand: computers are not able to realize ideas you don’t have and undertake the projects you haven’t mentioned. They are just tools in your hands. And the results of using them are the results of your being patient to tell in a really simple binary way: “Come on, old man, do it!” Computers are of metal and plastic but if you don’t scare them by your aggression, they do what should be done.

SURFING THE NET

What is more impressive than the pyramids, more beautiful than Michelangelo’s David and more important to mankind than the wondrous inventions of the Industrial Revolution? To the converted, there can be only one answer: the Internet. It is entering every area of our life – college, work and home. The electronic superhighway provides an entry to libraries, research institutions, databases, art galleries, census bureaus, etc. For those of us interested in intercultural communications Cyberspace is a universal community, with instant access not only to information to anywhere, but also to friend old and new around the globe.

The Internet is an amorphous global network of thousands of linked computers that pass information back and forth. While the Internet has no government, no owners, no time, no place, no country, it definitely has a culture, which frequently approaches anarchy; and it has a language, which is more or less English. Like all new worlds, Cyberspace has its own lingo, for example: online, modem, free net, web page, freeware, browser. There are words to describe people who
Large-scale use of computer-to-computer transfer of information was implemented by the US military in the late 60s – part of the superpower competition of the cold war and the arms race. The US military created an electronic network (Arpanet) to use computers for handling the transfer of large amounts of data over long distances at incredible speed. Computer-to-computer virtual connections, using satellites have distinct advantages over telephone or radio communications in the event of a nuclear attack. Mathematicians and scientists have been linked and electronically exchanging information over the Internet since the mid-70s. Now the Internet is being expanded and improved so that every home, every school, every institution can be linked to share data, information, music, video and other resources. So, if you have a computer or a computer terminal, some kind of connection (probably, modem and telephone line) to the Internet, and some kind of Internet service provider, you can participate in electronic communication and become a citizen of the global village.

Ex.28. Can you do a better translation?

a) 10 PROGRAMMERS

Ten young programmers began to work online,
One didn’t pay for Internet, and then there were nine.

Nine young programmers used copies that they made,
But one was caught by FBI, and then there were eight.

Eight young programmers discussed about heaven,
One said: “It’s Windows 95!”, and then there were seven.

Seven young programmers found bugs they want to fix,
But one was fixed by the bug, and then there were six.

Six young programmers were testing the hard drive,
One got the string “Format complete”, and then there were five.

Five young programmers were running the Front Door,
The BBS of one was hacked, and then there were four.

Four young programmers worked using only C,
One said some good about Pascal, and then there were three.

Three young programmers didn’t know what to do,
One tried to call the on-line help, and then there were two.

Two young programmers were testing what they’ve done,
One got a virus in his brain, and then there was one.

One young programmer was as mighty as a hero,
But tried to speak with user, and then there was zero.

Boss cried: “Oh, where is the program we must have?!?”
And fired one programmer, and then there were FF.
10 ПРОГРАММИСТОВ
Десять программистов продукт решили сделать.
Один спросил: «А деньги где?» и их осталось девять.

Девять программистов предстали перед боссом.
Один из них не знал FoxPro и их осталось восемь.

Восемь программистов купили IBM.
Один из них сказал: «Mac — класс!» и их осталось семь.

Семь программистов решили Help прочесть.
У одного накрылся винт и их осталось шесть.

Шесть программистов пытались код понять.
Один из них сошёл с ума и их осталось пять.

Пять программистов купили CD-ROM.
Один принёс китайский диск — остались вчетвером.

Четыре программиста работали на «C».
Один из них хвалил PASCAL и их осталось три.

Три программиста играли в сеть в «DOOM».
Один чуть-чуть замешкался и счёт стал равен двум.
Два программиста набрали дружно «Win».
Один устал загрузки ждать — остался лишь один.

Один программист всё взял под свой контроль,
Но встретился с заказчиком и их осталось ноль.

Ноль программистов ругал сердитый шеф,
Потом уволил одного и стало их FF.

b) WHAT IF DR. SUESSE WROTE A MANUAL?
If a packet hits a pocket on a socket on a port,
And the bus is interrupted as a very last resort,
And the address of the memory makes your floppy disk abort,
Then the socket packet pocket has an error to report.

If your cursor finds a menu item followed by a dash,
And the double-clicking icon puts your window in the trash,
And your data is corrupted 'cause the index doesn't hash,
Then your situation's hopeless and your system's gonna crash!

If the label on the cable on the table at your house,
Says the network is connected to the button on your mouse,
But your packets want to tunnel on another protocol,
That's repeatedly rejected by the printer down the hall,

And your screen is all distorted by the side effect of Gauss,
So your icons in the window are as wavy as a souse,
Then you may as well reboot and go out with a bang,
'Cause as sure as I’m a poet, the sucker’s gonna hang!

When the copy of your floppy’s getting sloppy on the disk,
And the microcode instructions cause unnecessary risk,
Then you have to flash your memory and you’ll want to RAM your ROM.
Quickly turn off the computer and be sure to tell your mom.

HOW MODERN ARE YOU?
(pop quiz)
1) If you were able to have any car you wanted, what would you buy?
   a) I’d buy a restored vintage car that might become a collector’s item.
   b) I’d buy a newly built car with all the latest technology.
   c) I wouldn’t buy a car because I don’t like them.
2) What is your attitude to new scientific developments?
   a) They are brilliant. They help to make the world a much happier and better place.
   b) We know enough about science now. We should stop interfering with nature.
   c) Some things are good. Some things are bad.
3) How do you speak?
   a) I use a lot of new words, slang and catch phrases from the television and magazines.
   b) I use exactly the same words and phrases as my parents.
   c) I use a few new words because they are useful for what I want to say.
4) Which of the following do you think is the most enjoyable?
   a) Playing virtual reality computer games.
   b) Going to a disco club that plays music from the 60s and 70s.
   c) Listening to techno music.

5) Which of the following would be your preferred way of finding out information?
   a) I like looking up in a book.
   b) Surfing the Internet or using a CD-ROM is the best way.
   c) Watching a video is best.

6) You go to a friend’s house. His mother works, earning a lot of money, and his father stays at home, cooks and cleans. What is your reaction?
   a) Nothing. It doesn’t matter who works and who cleans. It is the 21st century.
   b) A bit surprised. It seems a bit strange because it is unusual.
   c) The poor man. Cooking and cleaning is a woman’s job.

7) Which of the following types of books or films do you prefer?
   a) Historical ones
   b) Anything romantic
   c) Contemporary ones about modern day things.

8) If your computer were six years old and worked perfectly well, which of the following would you do?
   a) I’d buy a brand new one so I could have new technology.
   b) I wouldn’t do anything. I’d be happy with it. New technology is just gimmicks.
   c) I’d secretly hope it would break, despite the fact that I didn’t need a new computer.

ADD UP YOUR SCORE AND READ THE ANALYSIS

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THE ANALYSIS

8 – 11: You are not modern at all and you don’t want to be. You are suspicious of new things and don’t make an effort to find out about them. You would prefer to live in the past. It is nice that you can appreciate the simple things in life but you must be careful not to get left behind. You are too traditional.

12 – 16: You are not very modern but you are not completely old-fashioned either. You like to live in a world that has the good things from the past and some of the good things from the present too.

17 – 20: You are modern. You know a lot about what is happening around you and obviously enjoy progress. On the other hand, you are sensible and don’t worry about buying and doing all the latest things just because they are fashionable.

21 – 24: Yes. You are very modern. Being up-to-date is very important to you. Sometimes perhaps it is too important. Remember that new things are not always the best things. Be careful not to become obsessed with every new thing that comes along. Some things are just clever marketing crazes that will complicate your life.
[1] RAILWAYS

The railroad is a form of land transportation that is found in almost every country in the world. Railroads serve many thousands of communities, from big cities in highly developed nations to tiny villages in remote areas. Railroads carry travelers to and from neighboring communities or on trips across whole continents. They carry raw materials and farm products to manufacturing and processing plants, and they carry the finished products from those plants to warehouses and stores. Railroads were designed to move large numbers of passengers or large amounts of freight over long distances. The railroad is the most efficient method of land transportation because it requires the least amount of fuel and human labor and is the least damaging to the environment. Railroads carry about 40 percent of the total volume of freight transportation in the United States. The world has a total of more than 738,000 miles (1,187,000 kilometers) of railroad line. Almost all the railroad systems carry both freight and passengers. A railroad is much like a manufacturing business whose sole product is transportation service. To produce that product it requires tracks, cars, locomotives, repair shops, communication systems, and skilled workers.

[2] PASSENGER TRANSPORTATION IN THE USA

In urban areas of the United States, movements of people between home and work account for about 40 percent of the total number of passenger journeys. Recreational trips account for about 15 percent of all trips. Automobile riding, for example, is not only a means of reaching a destination but is a popular form of outdoor recreation. Recreational boating is popular. Cruise ships have made up the major proportion of ocean-going passenger vessels since jet aircraft became the favored mode of transoceanic travel. The automobile dominates intercity passenger transportation in the United States. It accounts for more than 80 percent of the total passenger miles. No other mode of transportation approaches the flexibility and convenience of the automobile, which provides door-to-door service independent of schedules.

The railroad is no longer a major means of intercity passenger transportation in the United States, though railroad passenger service prospers in much of the rest of the world. As recently as the early 1940s there were more than 20,000 daily intercity passenger trains in the United States. By the early 1970s there were only about 200. Whereas railroads accounted for almost 70 percent of the total passenger-miles by public carrier in 1930, by 1970 they accounted for less than one percent. In 1971 the National Railroad Passenger Corporation, a federal agency that is also known as Amtrak, took over most of the intercity railroad passenger service. Most Amtrak trains operate in the Northeast corridor between Boston, Mass.; New York City; Philadelphia, Pa.; Baltimore, Md.; and Washington, D.C. A large proportion of the New York-Washington service is by high-speed electric trains called Metroliners. There is commuter railroad passenger service in the suburban areas of such large cities as New York, Chicago, Philadelphia, Boston, and San Francisco. Electric interurban railroads and street railways in cities have almost disappeared.

Intercity buses in the United States serve many more communities than do railroads. Using modern expressways, they provide swift service between major cities, though many communities not on expressways now have much less bus service than they formerly had. Air carriers dominate public intercity passenger transportation in the United States. The growth of air passenger traffic has been rapid, increasing from only 14 percent of the total in 1950 to more than 85 percent in the 1980s. Passenger transportation by water carriers in the United States is insignificant except for some ferry services.

Notes: 1. recreational trip – путешествие (поездка на отдых или экскурсию)
2. outdoor recreation – отдых на открытом воздухе
3. community – населённый пункт
In the early days, each railroad built its track at whatever gauge it pleased and then built its engines and cars to fit that gauge. The tracks at the Killingworth Colliery, for which George Stephenson built his first locomotive the *Blocher*, happened to be 4 feet 8 inches (1.42 meters) between rails, so Stephenson built his locomotive for this gauge. When he designed the Stockton and Darlington he made the locomotive the same width but added another half inch (1.3 centimeters) to the width of track. This odd measurement of 4 feet 8½ inches (1.44 meters) in time came to be known as standard gauge. Other tracks in England ranged between 2 and 7 feet (0.6 and 2.1 meters). The famous English engineer Brunel considered that the (wider) gauge, the (easier) would the trains run. Following his advice the Great Western Company had constructed the railway network with a gauge of 7 feet. That is why for many years there were 2 gauges in England: the 7 feet suggested by Brunel and 4 feet 8½ inches, offered by Stephenson. It was inconvenient because where there was a break of gauges, delay was caused and time was wasted. Angry people wrote to the newspapers and demanded to change the broad gauge. “The Battle of the Gauges” lasted more than 30 years. Only in 1892 in the House of Commons¹ the broad gauge was described as a “national evil”, and it was decided to convert all the railways to the standard gauge.

In the United States the early railroad tracks ranged from 3 to 6 feet (0.9 to 1.8 meters) in width. This variance became unacceptable with the demand for connecting lines and through service. Freight soon began to move longer distances and over the lines of more than one railroad. The differences in gauges forced the costly nuisance of unloading and reloading cars. Most of the lines in the area between New York City and Chicago were of nearly the same gauge—between 4 feet 8 inches and 4 feet 10 inches (1.47 meters). Thus, in the 1860s, arrangements were made to use cars specially equipped with broad-tread wheels that could be used on any of these widths. About the same time, the movement toward standardization of the 4 feet 8½ inch, or Stephenson, gauge received great encouragement when the United States Congress adopted it for the new Pacific railroad. By the mid-1880s there was virtually a double standard of gauge in the United States. In the North and West the Stephenson gauge prevailed, while most of the South used a gauge of 5 feet (1.52 meters). Starting in 1886, the Southern lines narrowed their tracks to the now standard gauge of 4 feet 8½ inches. This uniformity soon ensured an uninterrupted flow of commerce over the entire nation. Standard gauge is also used in Canada, Mexico, and Cuba, which was once linked with railroads on the mainland by freight-car ferry. No other continent has a comparable standardization, however.

**Note:** ¹ the House of Commons – Палата Общин

### [4] DEVELOPMENT OF AMERICAN RAILROADS

Between 1850 and 1871 the United States government made grants to railroads to assist the extension of lines in the West and South, often ahead of settlement. About 8 percent of the country’s railroad mileage was built with the aid of these land grants. The grants were not outright gifts; in return, the railroads were required to haul government traffic at reduced rates. When Congress terminated this arrangement in 1946, it was estimated that the railroads had repaid the government about ten times the original value of the land grants.

By 1870, when the railroad movement in the United States was 40 years old, there were 53,000 miles (85,000 kilometers) of main lines, not including secondary tracks, sidings, passingtracks, or yards. Between 1870 and 1880 another 40,000 miles (64,000 kilometers) were added. The decade from 1880 to 1890 saw the most rapid expansion of American rail lines, with 70,000 miles (113,000 kilometers) added—an average of 19 miles (31 kilometers) of new railroad completed each day. Growth continued, with another 30,000 miles (48,000 kilometers) added in the 1890s and another
47,000 miles (76,000 kilometers) in the next decade. By 1910 the network was largely complete and there was little further extension. In 1916 total railroad-line mileage in the United States reached its highest point at 254,000 miles (409,000 kilometers).

After 1920, with the rapid expansion of paved roads, much traffic was taken from the railroads by automobiles, buses, and trucks, though the overall demand for railroad service remained high. As a result, the railroad network began to shrink as lines that could no longer pay their way were abandoned. By the end of the 1980s, railroad-line miles in the United States had dropped to about 150,000 miles (241,000 kilometers). Some of the lines had been built to serve mines, forests, or other nonrenewable natural resources and were abandoned when the resources were exhausted. Other lines had been built to serve an anticipated need that never materialized. Still other lines disappeared because the industries they had been built to serve entered a period of decline or relocated to other parts of the country. By the late 1980s, American railroads had become primarily high-volume freight carriers operating on long-distance, main-line corridors. Intercity passenger traffic had largely been taken over by automobiles, buses, and airlines. Much freight, especially on the shorter distance hauls, was being carried by trucks. Yet the total railroad freight volume, as measured in ton-miles (a ton-mile is a unit of measurement corresponding to one ton of freight carried one mile) set a new all-time record in 1990—78 percent more than in 1960.

[5] SLEEPING CARS IN THE USA

The first passenger cars in the USA were high in proportion to their length, and were not fitted for movement upon rails. Their characteristics have gradually changed, so as to make them longer, lower, safer, more comfortable and convenient. One of the most important railroad inventions in the USA was a sleeping car. The earliest trains had no sleeping cars. There was really no need for them, because early railroads were short; the longest journeys lasted only a few hours, and nearly all trains went in the daytime. As a number of railroads increased, it became possible to make longer and longer journeys and night travel became common. Long journeys by night were very tiresome and uncomfortable because it was almost impossible for passengers to sleep in the car seats. Steamboats and sailing vessels had good sleeping rooms, and even canal boats used for passenger transportation had bunks in which travelers could rest at night. It can easily be seen that there was a real need for sleeping cars on the railroads, and especially upon the railroads of the USA, where the distance which one might travel was so large.

The earliest sleeping cars had a row of double bunks on each side. Although these cars were more comfortable for night travel than the ordinary coach, they had one large defect. They could not be used for day travel. What was needed was a car in which the seats used during the day could be converted into beds at night.

George M. Pullman of Chicago invented the modern sleeping car. He built his first one in 1859. This car was much simpler in design than the sleeping cars of today but it was so much more suitable for long-distance travel than any other kind of car in use at that time. Encouraged by the success of his first car, Mr. Pullman built a much larger sleeping car a few years later, a car which was a great improvement over his first coach. This car was named the Pioneer. George Pullman received many orders for sleeping cars. In 1879 he bought the big site of land near Chicago. On this place the city of Pullman was constructed, and there the Pullman-Standard Car Manufacturing Company still has its great manufacturing plant, which is capable of producing many hundreds of all kinds of cars a year.

Practically all of the sleeping cars on the USA's railroads are owned and operated by the Pullman Company.

To be read after Lesson 4

[6] MONORAIL

More used as a transportation system in industry than in cities, a monorail is a type of electric railway train that runs either above or below a single track. In factories monorails are used for moving equipment or materials from one part of a plant to another. In public transportation systems
they have thus far been used only for hauling people for short distances.

One of the first monorail systems constructed was the Schwebebahn (suspension railway) in Wuppertal, Germany. Completed in 1901, it consists of two-car trains hung from an elevated structure. Much of the route operates over the Wupper River. The distance covered is 9.3 miles (15 kilometers).

This system, though it has proved safe and efficient, has not had many imitators. There are today only about three dozen monorails in the world, and none operates for a distance longer than 10 miles (16 kilometers). There is an 8.2-mile (13-kilometer) monorail in Japan running from Tokyo to the airport. It was constructed in 1964 on the occasion of the Summer Olympic Games. Although much newer in appearance than the one in Wuppertal, it also is suspended from an overhead beam. A shorter line was built at Osaka for the World's Fair called Expo '70. There is a 1-mile (1.6-kilometer) monorail in Seattle, Wash., that was built for the 1962 World's Fair. Disneyland in Anaheim, Calif., and Walt Disney World near Orlando, Fla., both have monorail trains operating within their grounds. The systems connect the various parts of the parks with hotels and parking lots.

The Disney and Seattle monorails ride above a beam. This system was designed in the 1950s in Sweden by Axel L. Wenner-Gren. The trains pick up an electric current from a rail attached to the side of the beam.

Although they provide swift and quiet transportation, monorails have not yet been accepted anywhere for long-distance travel. In England the Greater London Council studied the monorail as an option for urban transport. It concluded that such a system offered no advantages over existing surface and underground lines. Among the objections to monorail systems cited by critics are the huge cost of constructing a system, its unsightliness in a city, and passenger inconvenience. Such a system in any city would have the high visibility that elevated trains now have in parts of New York City, Boston, Chicago, and other urban centers.

One of the few places in the world to invest in a monorail system in the late 1980s was Malaysia. The city of Kuala Lumpur approved a project to construct a 12-mile (20-kilometer) line.

Notes: 1. suspension railway – подвесная железная дорога
2. elevated structure – надземное сооружение, эстакада
3. overhead beam – надземная балка (перекладина)

[7] STREET RAILWAY

A historic type of urban transportation, the street railway has taken many forms, from a single horse-drawn car to a complex system of strings of cars running above and below the ground. In the typical street railway, electrically powered cars run on tracks laid in the street and share the roadway with other traffic.

The famed cable-car system in San Francisco, Calif., was among the first mechanical railways. Electric railways replaced most cable systems in the early 20th century. Electric streetcars draw power from a stationary generator. The power is transmitted most commonly by an overhead wire through a pantograph. The current passes to the motors, and then returns to the powerhouse by way of the running rails.

A modern variation of the street railway is light rail transit (LRT). LRT vehicles operate singly or in short trains of two or three cars. Their tracks may run in the common roadways, but typically the tracks are segregated from traffic except at cross streets and often run in subways or on elevated structures. LRT systems can transport many passengers, accelerate rapidly, and travel at high speeds. The direct operating costs are relatively low; however, the costs of construction and maintenance are fairly high.

Conventional streetcar systems are still used in Germany, Austria, Switzerland, Scandinavia, The Netherlands, Eastern Europe, and parts of Canada and South America. In many cities of Europe, Asia, and the United States, however, streetcars have been replaced by diesel-powered buses, subway systems, and LRT systems.
Examples of heavy rapid transit are subways and elevated railways, or combinations of the two, such as the systems found in Chicago, New York, London, Moscow, and Paris. They are electrically powered, on the same principle as the streetcar, except that the cars pick up current from a third rail alongside the running rails instead of from an overhead line. These systems operate in trains of up to ten cars and are completely separated from other traffic. As a result, they can run at high speeds and carry many passengers: heavy rapid-transit systems can transport up to 60,000 passengers per track, per hour; conventional street railways can move only 2,000 to 9,000, and LRT systems only 5,000 to 15,000.

Before 1920 (and in some metropolitan areas as late as 1950) it was common for street railway extensions to serve suburban areas, while interurban electric railways joined cities. Today the new LRT and rapid-transit lines continue to run well out into the suburbs. They are the modern suburban and interurban railroads.

In recent years there has been a worldwide renovation of old electric railway systems. In countries such as the United States, Austria, Germany, and The Netherlands, existing lines are being repaired and reequipped. In addition, new LRT systems have opened in Bonn and Cologne, in Germany; Göteborg, Sweden; Newcastle upon Tyne, England; Calgary and Edmonton, Alta.; Zürich, Switzerland; and in a number of cities in the western United States.

In the late 1990s there were more than 325 street railway and LRT systems operating worldwide. Russia had the largest number with 121 lines; Germany had 58; and the United States had 14 LRT lines built or under construction. Traditional mixed-traffic street operation of any significant volume is now found only in a couple of cities in the United States and in parts of Germany, Eastern Europe, the former Soviet Union, Egypt, and India.


To be read after Lesson 5

[8] BUILDING THE RAILROAD

Before a railroad is built there are usually several alternative routes to be considered. Maps, aerial photographs, and profiles showing the features of each route are prepared and carefully studied. Experts then choose what they consider to be the best route. The choice they make has much to do with the success or failure of the new railroad line. One route may be fairly level, requiring only a few cuts through hills and fills through valleys. Such a route, however, may require a long tunnel to get through an intervening mountain or several expensive bridges to get over rivers. This would make it more costly in the end than one with moderate cuts and fills all the way. Another route, though less expensive to build, may run through unsettled country. Hence it may be wiser to build the more expensive line for the sake of the greater local business it can get.

The selected route is then surveyed carefully, and building commences. Sometimes work parties begin at each end and build toward the middle, as was the case with the transcontinental railroad in the United States. The constructed sections of track carry trains with supplies for the construction workers. Today parties can be stationed at various points and receive supplies from other railroads already built nearby. This method gets the road finished and earning money much more quickly.

The first step is the preparation of the roadbed. Following the stakes and plans set up by the surveyors, the working parties clear away trees, make cuts and fills, and otherwise prepare the way. Other workers set up bridges and dig tunnels. As fast as the roadbed is ready, crossties and rails are laid, either by hand or by machines. Working on level ground, tracklayers can complete several miles in a day. Finally, the track must be ballasted, preferably with gravel, cinders, or broken stone.

In the United States the usual practice was to build a single-track line with as few tunnels, bridges, and expensive cuts and fills as possible. Then the track was doubled, first at portions where
most trains passed and finally over the entire route, and thus the railroad grew into a first-class line. This method was largely responsible for the development of great railroads in the United States. Companies built roads through the open frontier. Soon communities appeared along the lines, and new businesses were started. These enabled the railroads to prosper. While track undergoes constant maintenance and improvement, there has been very little new construction in the United States in recent years, and it is estimated that the existing track system could carry 25 percent more traffic. In some areas, new communications and train control systems have allowed the elimination of double tracks in favor of single-track operations.

Notes: 1. profile – чертеж ж/д пути в вертикальном разрезе
2. roadbed – земляное полотно
3. stake – опорный столбик, веха
4. cinder – шлак
5. community – населённый пункт

[9] FRENCH TRANSPORT

Transport systems have long been vital to France, serving to unite the nation in an administrative sense while promoting the growth of regional economies and linking the country to the rest of Europe and to the world. Paris has always been the hub of French transportation.

The Industrial Revolution brought innovations in transportation to France. For example, a complex system of canals was built, connecting many navigable rivers and providing low-cost water transport for products of the mines and factories.

The railroad age began while the canal-building era was at its height. The first French line began operating in 1827, between St.-Étienne and Andrézieux, and steel rails soon linked most parts of the country. By 1934 France had 33,282 miles (53,561 kilometers) of railways. Most of the main lines were built in a radial pattern, with Paris at the center, thus reinforcing the importance of the capital. Paris continued to grow and prosper at a remarkable rate because people had difficulty traveling between any two points in France without passing through the capital. Also, rail lines made it easier for rural people displaced by the Industrial Revolution to migrate to Paris than to any other city.

The appearance of the automobile just before 1900, and the airplane a few years later, added new perspectives to transportation. Highways, duplicating the earlier railway patterns, radiated in all directions from Paris, and the distance to any point in France was calculated from the front steps of the Cathedral of Notre Dame. Air transportation to and from the airfield at Le Bourget, near Paris, began in 1919.

Today, French transportation systems are changing to cope with three problems: rapid technological change, the obsolete condition of many earlier systems, and increasing pressure to reduce the dependency of the entire country on Paris. Although lagging behind several other European countries, France has, since about 1960, embarked on a major program of superhighway construction. Many of the new highways have necessarily duplicated the older ones centered on Paris, but engineers have made great efforts to enable travelers to go to and from other parts of France without passing through the capital.

Rail traffic has declined, as it has in nearly every country, but is still important in France. The high-speed TGV travels between Paris and Lyon in only two hours, compared with four hours for conventional service, and the TGV service is being expanded to other lines as well. Air travel has also increased enormously. Traffic at Paris is divided among the airport at Orly, south of the city, and Charles de Gaulle, to the northeast, in Roissy. With Le Bourget, which today handles only charter flights, these airports accommodated a total of about 30 million passengers per year in the early 1980s, making Paris the second busiest European air travel center after London. Paris is also the airfreight capital of Europe, handling about 625,000 tons of cargo in 2001. Other major international airports include those at Marseilles, Nice, Lyon, Lille, and Strasbourg.

Notes: 1. hub – центр
2. radial pattern – радиальная схема
In Australia railways were constructed in all colonies between 1854, when a line was built between Melbourne and Port Melbourne, and 1871. Trivial disagreements among the self-protecting colonies blocked the creation of any master plan and saddled Australia with three different rail gauges: the standard gauge of 4 feet 81/2 inches (144 centimeters) in New South Wales; the broad gauge of 5 feet 3 inches (160 centimeters) in Victoria and South Australia; and the narrow gauge of 3 feet 6 inches (107 centimeters) in Queensland, Tasmania, Western Australia, and the northern extremities of South Australia. It took until 1970 to standardize one continuous line between Perth and Brisbane, along which the India-Pacific train now travels. It crosses the Nullarbor Plain on the longest straight stretch of rail track in the world – 300 miles (480 kilometers).

State governments control most of the railways, including the profitable electrified commuter lines in the cities. These help offset the losses on run-down rural services. The Commonwealth government controls the railways of Tasmania, the Northern Territory, and parts of the transcontinental line. Private freight lines convey iron ore, sugar, coal, and other goods to the nearest ports. Trams served the larger cities until buses replaced them by the 1960s – except in Melbourne, where trains still run along broad streets laid out in a grid pattern.

Australia's busiest ports are Sydney, Melbourne, Newcastle, Hay Point, Dampier, and Port Hedland. The last three of these are occupied primarily with carrying mineral exports.

Australia originally depended on shipping for all contact with England, Europe, and other trading partners. In 1787–88, the fleet bringing the original convict settlers arrived after being eight months at sea. The travel time from England to Australia was cut to 60 days – a time set in 1871 by the Thermopylae, after clipper ships, including the famous Cutty Sark, had entered the Australian run. They mainly carried wool to Europe.

The airplane made connections with other countries much swifter. Qantas and Imperial Airways flew their first passengers to Britain in 1935. By the 1960s, ships to Southampton, Genoa, and San Francisco had carried their last passengers, though fleets of cruise ships still ply the Australian waters.

Mercantile shipping is now dominated by the Australian National Line, established by the federal government in 1956. River transport is negligible in a land beset by droughts, sand-clogged channels, and the scarcity of navigable rivers.

Aviation solved the problem of Australia's vast internal distances and remoteness from overseas centers. In 1919, Keith and Ross Smith flew from England to Darwin in 28 days. The first flight across the Pacific, from California to Brisbane, was completed in 1928 by Charles Kingsford-Smith, after whom Sydney's airport is named. Such exploits made Australians air-conscious and promoted the domestic market. Queensland and Northern Territory Aerial Services (Qantas) was founded in 1920. It became the nation's flagship carrier after being nationalized by the federal government in 1947. Its safety record is unmatched.

Thirty overseas carriers now serve Australia, mostly under bilateral agreements which give Qantas reciprocal landing rights. Domestic airline services were controlled between 1952 and 1987 by a two-airline policy. This maintained a regulated monopoly on interstate routes, with the government airline (Australian Airlines) in sole direct competition with one private airline (Ansett). Remote outposts have been served by the Royal Flying Doctor Service since 1928, using aerial ambulances, radio and landline networks, and mobile clinics. The School of the Air for outback children began in 1951 by using the same two-way radio transmitters.

Notes: 1 to offset the losses – возмещать убытки  2 cruise ship – круизное судно  3 to ply – курсировать
Railway construction began in China late in the 19th century, and the first line, between Shanghai and Peking (Beijing), was opened in 1903. By World War II more than 15,500 miles (25,000 kilometers) of track had been built, primarily in the eastern and northeastern parts of the country. Much of the network was destroyed during the war, but rail construction began anew after 1949 and has continued ever since. By 1993 China had an estimated 43,131 miles (69,412 kilometers) of railroads. (By comparison, the United States had about three times as much trackage in that year.) By 1983 every province-level administrative unit except Tibet was served by rail, and plans were being made to extend a line south from the Lanzhou-Urumqi line to Lhasa, in Tibet.

Railways have become the most important form of transportation in China. For example, more than 50 percent of the country’s traffic is moved by the railroad system. China’s rail network consists of a series of north-south trunk lines, crossed by a few major east-west lines. Most of the large cities are served by these trunk lines. But many of the main lines cannot meet the demand for service. The sixth five-year plan (1981 to 1985) called for continued large investment in railways. The investment was used to improve the carrying capacity of existing lines through double tracking or electrification, and to construct short lines where the government decided there was a crucial need for service.

Nowadays much attention is paid to the development of high speed railway transportation. Unexpected growth of air and road transport has hit the railways hard. The Chinese Minister of Railways has noted that during the ‘good old days’ such things as customer service and fast, reliable trains didn’t matter too much. “The timetable was fixed and we had nothing to worry about but watching passengers struggling for tickets,” he said. “But today we have to go out and look for food like horses.”

Worldwide, high speed trains moving at 250 km/h or more operate over 3,700 km of specially-built track, while passenger trains in China still mainly run at 80-100 km/h. The situation needs to change and change quickly if railways in the world’s most populous country are to continue to play their important social and economic role. In recognition of this, China is planning several thousand kilometers of new lines in order to transport 1.5 billion passengers and 2.1 billion tons of freight a year. Specific plans have been drawn up to upgrade the busiest main lines for semi-express passenger trains running at 160 km/h, or express trains moving at 250 km/h, while at the same time experiments are going ahead for 300 to 350 km/h operation.

So, despite a drift away from passenger train travel by some people, there is no possibility of railways in China becoming obsolete. The country is vast and still developing which means that the railways are and will remain the chief means of transport.

Note: populous – густонаселённый

[12] JAPANESE TRANSPORTATION

Modern transportation facilities link all parts of Japan and provide the swift, efficient movement of people and goods. Railways are the main form of land transportation. Railway stations are the hubs of mass-transportation systems, which also include buses, taxis, subways, and the vanishing trolleys.

The first Japanese railway was laid in 1872 between Tokyo and Yokohama. By 1930 a rail network covered the four main islands. Most private lines were nationalized in 1906 and passed to a public corporation, the Japan National Railways (JNR), in 1949. The JNR operates about four fifths of Japan’s 17,000 miles (27,000 kilometers) of railway lines, including all long-distance trunk lines. It owns about 90 percent of all rolling stock. The private railways operate commuter lines in the metropolitan areas. Japanese railways use narrow-gauge track – 3 feet 6 inches – and relatively small and light rolling stock. About three fifths of the JNR lines are double-tracked or electrified. Diesel and electric units have replaced coal-burning locomotives.
Postwar population and economic growth has placed an enormous strain on the carrying capacity of Japan's railways. The high-speed, broad-gauge New Tokaido Line went into operation in 1964. Its fastest express trains make the 320-mile (515-kilometer) run from Tokyo to Osaka in a little more than three hours. An extension known as the New Sanyo Line was completed from Osaka to Okayama in 1972. The railways of Honshu are linked to Kyushu and Hokkaido by undersea tunnels and to Shikoku by ferry service. Tokyo, Osaka, Nagoya, Kobe, Sapporo, and Yokohama have subways.

Modern highway construction has lagged badly behind the needs of automobile and truck traffic. About 70 percent of the total mileage of roads is paved. By 1990 there were 692,661 miles (1,114,699 kilometers) of national expressways and general roadways for a country that had more than 60 million registered motor vehicles. City traffic is speeded by street widening and by the construction of elevated expressways.

Domestic air service links all major cities. Japan Air Lines (JAL) operates round-the-world service. Tokyo International Airport at Narita, more than 40 miles (60 kilometers) from downtown Tokyo, was completed in 1973. Its opening was delayed until 1978 because of protests by opponents of the facility. The planned addition of two runways at Narita in the 1990s was also prevented by protests from environmentalists. The new Kansai International Airport was scheduled to open at Osaka in 1994. Built at a cost of 14 billion dollars, it was the world's most expensive airport. It is located on an artificial 1,300-acre (526-hectare) island in Osaka Bay. The island itself cost 4.5 billion dollars to construct. The airport's designer was Italian architect Renzo Piano. To ease congestion at the major airports, the government decided to upgrade local airports at Kobe, Nagoya, Yokohama, Kyoto, and other cities to handle the large increase in air traffic.

There were more than 7,000 vessels carrying passengers and cargo in coastal shipping in 1990. For passenger service between cities there are jetfoils and air-cushion vessels. Considering the very large volume of Japanese imports and exports, most products are carried in oceangoing vessels registered to other countries.

Notes:
1. transportation facilities – средства транспорта
2. hub – центр
3. jetfoil – судно на подводных крыльях
4. air-cushion vessel – судно на воздушной подушке

[13] RAILROAD MODERNIZATION

Like their younger competitors, the railroads have become specialized carriers that concentrate on the types of transportation for which they are best suited. Railroads are particularly efficient at moving large volumes of bulk commodities such as coal or ore over long distances and transporting marine containers and piggyback highway trailers. Railroads are also efficient at carrying commuter passengers between suburbs and city centers and providing comfortable, fast intercity passenger services.

New technologies – in design, materials, and methods – have helped railroads become still more efficient. After World War II, for example, strong concrete cross ties replaced wooden ties on many railroads, especially in Europe. Rail welded into long sections became the standard for most busy main lines. By the 1960s high-speed passenger trains were introduced.

Japan's so-called “bullet train” was in the forefront of the new technology. It began operating on Oct. 1, 1964, to mark Asia's first Olympic Games, which were held in Tokyo. The first section of the fabled Shinkansen (New Trunk Line, known as the New Tokaido Line) was a 320-mile (515-kilometer) stretch between Tokyo and Osaka. A 100-mile (160-kilometer) extension from Osaka to Okayama was completed in 1972, and the final segment – a 244-mile (393-kilometer) run to the Hakata station in Fukuoka, northern Kyushu – opened in 1975. Other lines, completed in 1982, radiate north of Tokyo to Niigata and Morioka. The Shinkansen was privatized in 1987.
France's TGV became the supertrain of the 1970s and 1980s. It set a new world speed record of 320 miles an hour in 1990. The newer ten-car TGV trains are powered by front and rear electric locomotives. Computerized controls provide on-board signalization and fail-safe braking.

Some of the other countries where superspeed trains are running or planned are Great Britain, Germany, Italy, Sweden, Finland, Ireland, Australia, Canada, and the United States. High speed train called Metroliners make daily three-hour trips between New York City and Washington, D.C.; although the trains are capable of faster runs up to 160 miles (260 kilometers) per hour, drawbacks on the existing line hold speeds to a maximum of 100 miles (160 kilometers) per hour.

Several American railroads operate trains of RoadRailers, vehicles that have both rail and highway wheels. On the railroad they run coupled together in trains pulled by locomotives, then are separated and moved by highway tractors to their final destinations.

Among the more advanced systems proposed is the magnetic levitation, or maglev, train. Instead of wheels or steel rails, the system uses coils in the surface of the track, or guide way, to create a magnetic field that lifts the vehicles and propels them forward. By the late 1980s only short test systems had been built in Germany and Japan. Successful experimental runs were first made in the early 1990s using locomotives powered by environmentally friendly natural gas.

Notes: 1bulk commodities – бестарные грузы, грузы насыпью  
2piggyback highway trailers – автополуприцепы или прицепы  
3to weld – сваривать  
4fail-safe braking – гарантированно надёжное торможение  
5to couple – сцеплять  
6magnetic levitation – магнитная левитация (поднятие)

[14] ADVANCES IN TRANSPORTATION

Technological advances in transportation have included the development of superspeed trains, such as Japan’s ‘bullet train’ of the 1960s and Frances TGV (Train de Grand Vitesse) of the 1970s and 1980s. These advances gave engineers the inspiration to design such experimental railroad systems as the magnetic levitation, or maglev train, which by the early 1990s had only short test systems set up in Germany and Japan. Improvements in power generation and transmission and concern for the air and noise pollution caused by diesel engines have prompted automobile makers to develop cars that will run on alternative types of fuel. One result has been the prototype of an electric car. A greater variety of ships, including submarine tankers and fast surface ships, have been developed. Other new types of vessels that are available include the hydrofoil, which travels on sea wings with its hull above water, and the hovercraft, which rides above the water on a cushion of air. The widespread use of atomic power for ship propulsion is a major research goal. STOL (short takeoff and landing), VTOL (vertical takeoff and landing), and supersonic aircraft have been adopted. These new technologies have made vehicles quieter. Passenger travel has improved in speed and comfort. Freight transport costs less because larger vehicles are used and operating efficiency has increased. The computer is used for record keeping, traffic control, navigation, and other routine operations.

In the more distant future, rocket transportation may become feasible, perhaps in combination with orbiting satellites, enabling all points on Earth to be connected in less than an hours travel time. Underground gravity vacuum tubes may permit freight and passengers to travel between stations thousands of miles apart also in less than an hour. Improvements may be expected in transportation management techniques. Some forms of transportation now under private ownership, management, and operation will increasingly depend on public financing or control, just as urban mass transit now does. Some forms of transportation will be integrated into multimodal organizations, both public and private, in order to move people and goods with a minimum of cost, inconvenience, and delay. Innovative communications systems, however, have already made much travel unnecessary. Teleconferencing enables people to hold meetings and see each other without having to travel.
Computer networking makes cooperative work possible, without the workers leaving home or office.

Notes: 1magnetic levitation — магнитная левитация (поднятие)  
2hydrofoil — корабль на подводных крыльях  
3hull — корпус  
4hovercraft — судно на воздушной подушке

To be read after Lesson 6

[15] BRIDGES

The invention of the steam locomotive changed bridge building because stronger spans\(^1\) were needed. Iron was first used for chain cables of a suspension bridge\(^2\) over the Tees River, in England, in 1741. The flooring\(^3\) was laid directly upon the cables. Abraham Darby and John Wilkinson built the first iron bridge over the Severn River at Coalbrookdale, England, in 1779. This 100-foot (30-meter) arch bridge is still in service. Thomas Telford built the first modern iron arch bridge in 1813. It is Craig Ellachie Bridge over the Spey River, Scotland, with a 150-foot (46-meter) span. It was not built up of cast-iron blocks in imitation of masonry as were previous iron arch bridges but was the first to use an arch made up of iron trusses\(^4\). In 1819 – 1824 Telford built the forerunner of the modern suspension bridges – the 570-foot (174-meter) span over Menai Strait in Wales. It had wrought-iron\(^5\) chains for cables.

The first to design railroad bridges was George Stephenson, who with his son Robert invented the *Rocket*, the first practical locomotive. Robert Stephenson built the Britannia Tubular Bridge over Menai Strait in 1846. Its two boxlike tubes were made of iron plates riveted\(^6\) together. Many truss designs were patented in the 1850s for railroad bridges. After numerous failures of cast-iron bridges, wrought iron was used, then steel.

The first bridge to use steel extensively was the triple-arched Eads Bridge over the Mississippi at St. Louis, Mo., in 1874. It was an important link in the transcontinental railroad and made St. Louis a crossroads. This bridge was named after James B. Eads who designed it and was in charge of its construction. The modern era of steel arch building began in the 20th century. The Bayonne Bridge, completed in 1931 over Kill van Kull between New York and New Jersey, has a 1,652-foot (504-meter) span. Australia’s Sydney Harbor Bridge, finished in 1932, is only 2 feet (0.6 meter) shorter. At the turn of the 20th century, the construction of masonry arch bridges reached its peak. Then the more economical and easier to use concrete became common for arch bridges. Later, reinforced concrete\(^7\) and then prestressed concrete\(^8\) were used.

Notes: \(^1\)span – пролёт моста  
\(^2\)suspension bridge – висячий мост  
\(^3\)flooring – настил  
\(^4\)truss – балка, ферма (моста)  
\(^5\)wrought iron – кованое железо  
\(^6\)to rivet – приковывать  
\(^7\)reinforced concrete – железобетон  
\(^8\)prestressed concrete – предварительно напряжённый бетон

To be read after Lesson 7

[16] CHARLES BABBAGE (1792–1871)

Although he was a 19th century mathematician, is credited with inventing the modern computer. He also designed a type of speedometer and the cowcatcher\(^1\) (a frame on the front of a locomotive that tosses obstacles off the railroad tracks).

Charles Babbage was born on Dec. 26, 1792, in Teignmouth, Devon, England. At age 19 he helped found the Analytical Society, whose purpose was to introduce developments from Europe
into English mathematics. At about the same time Babbage first got his idea for mechanically calculating mathematical tables. Later he made a small calculator that could perform certain mathematical computations. In 1816 he was elected a Fellow of the Royal Society of London, the oldest scientific society in Great Britain. Then, in 1823, he received government support for the design of a projected calculator with a 20-decimal capacity. While he was developing this machine he also served (1828–39) as a professor of mathematics at the University of Cambridge.

In the mid-1830s Babbage invented the principle of the analytical engine, the forerunner of the modern electronic computer. The government refused Babbage further support, however, and the device was never completed. A calculator based on his ideas was made in 1855 by a Swedish firm, but the computer was not developed until the electronic age. Babbage published papers on mathematics, statistics, physics, and geology. He also assisted in establishing England's modern postal system. Babbage died in London on Oct. 18, 1871.

Notes: 1cowcatcher – предохранительная решётка 2Fellow – член научного общества

[17] AUTOMATION IN TRANSPORTATION

The most sophisticated applications of automation in transportation have been made in the guidance and control of aircraft and spacecraft. Other applications include railroad operations and automatic traffic control.

**Aviation.** Automated systems combining radar, computers, and auxiliary electronic equipment have been developed to control the ever-increasing volume of air traffic. Air traffic controllers at large airports depend on such systems to direct the continuous flow of incoming and outgoing airplanes. They can pinpoint the position of every plane within 50 miles (80 kilometers) of the airfield on a special display screen of the radar unit. This information allows the controllers to select the safest route for pilots to follow as they approach and leave the airport. Many of the systems of the aircraft itself are automated. Oxygen masks, for instance, automatically drop down from overhead compartments when the cabin pressure becomes too low. Most modern planes have an automatic pilot that can take over for the human pilot. Commercial passenger planes are usually equipped with an automatic landing system that can be used when runway visibility is poor. The system employs radio beams from the ground to operate an instrument on board the plane. By watching this instrument, a pilot can determine the exact position of his craft in relation to the landing strip.

**Railroads.** Automation has become an important factor in railroad operations. The management of rail yards has been facilitated by computerized systems that integrate the signaling and switching functions of classification yards, where freight trains are sorted and assembled. Electronic scanners read color-coded identification labels on all freight cars entering a classification yard and relay the information to yard computers that assign the cars to the proper track. Automation has also been adopted by many passenger rail lines. In a number of systems, automatic equipment is used so extensively that the function of the train operator has been reduced to simple on and off operations during station stops. Since commands from automatic controls are continuously fed to other automatic mechanisms in response to information collected by sensors strategically positioned on the engine and track, human control of the engine is only required in an emergency.

An impressive example of automated rail transportation is the Bay Area Rapid Transit (BART) system serving the San Francisco-Oakland area of California. BART consists of more than 75 miles (121 kilometers) of track and about 100 trains operating between 33 stations at peak hours. Both the operation of trains and ticketing of passengers are fully automated. As a train enters a station, it
automatically transmits its identification and destination to the control center and to a display board for passengers to see. The control center, in turn, sends signals to the train that regulate its time in the station and its running time to the next destination. An ideal schedule is established every morning and, as the day progresses, the performance of each train is compared with that schedule. The performances of individual trains are then adjusted as required. The entire BART system is controlled by essentially one computer. There is an identical backup computer that can assume control if necessary.

**Notes:**
1. (classification) yard – сортировочная станция
2. switching – маневровая работа
§ 1. Глагол to be

Глагол to be в Present, Past и Future Indefinite имеет следующие формы:

<table>
<thead>
<tr>
<th>Present</th>
<th>Past</th>
<th>Future</th>
</tr>
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<tbody>
<tr>
<td>I am</td>
<td>I, he, she, it is</td>
<td>I, we shall be</td>
</tr>
<tr>
<td>he, she, it is</td>
<td>we, you, they were</td>
<td>he, she, it, you, they will be</td>
</tr>
</tbody>
</table>

I am busy now. Я сейчас занят.
The Institute is far from the Metro station. Институт находится далеко от станции метро.
They are first-year students. Они студенты первого курса.
He was in London last year. В прошлом году он был в Лондоне.
All the students were present at the lecture. Все студенты присутствовали на лекции.
I shall be at home in the evening. Вечером я буду дома.

В вопросительном предложении глагол to be ставится перед подлежащим. Если предложение в будущем времени, то переносится только вспомогательный глагол will (shall).
Is he busy now? Он сейчас занят?
Are they first year students? Они студенты первого курса?
Where were you last year? Где вы были в прошлом году?
When will he be at home? Когда он будет дома?

Отрицательная форма глагола to be образуется с помощью отрицания not.
The Institute is not far from the Metro station. Институт находится недалеко от станции метро.
Yesterday he was not present at the lecture. Вчера его не было на лекции.
On Sunday I shall not be in town. В воскресенье меня не будет в городе.

§ 2. Глагол to have

Глагол to have в Present, Past и Future Indefinite имеет следующие формы:

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<tr>
<th>Present</th>
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<th>Future</th>
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<tr>
<td>I, we, you, they have</td>
<td>I, he, she, it has</td>
<td>I, we shall have</td>
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<tr>
<td>he, she, it has</td>
<td>we, you, they had</td>
<td>he, she, it, you, they will have</td>
</tr>
</tbody>
</table>

I have (got) a lot of work now. У меня сейчас много работы.
He has (got) an extra ticket. У него есть лишний билет.
They had a lecture on Philosophy yesterday. Вчера у них была лекция по философии.
We shall have five exams. У нас будет 5 экзаменов.

Вопросительная форма глагола to have в Present Indefinite образуется двумя способами:

1) путём постановки глагола to have (have, has) перед подлежащим:
Has he got a map of London? У него есть карта Лондона?
What map has he got? Какая карта есть у него?
Have you got any questions to the lecturer? У вас есть вопросы к лектору?
What questions have you got? Какие у вас вопросы?

2) с помощью вспомогательного глагола to do (do; does):
Does he have a telephone? У него есть телефон?
What telephone does he have? Какой у него телефон?
Do you have a railway dictionary? У вас есть железнодорожный словарь?
What dictionary do you have? Какой словарь у вас есть?

Вопросительная форма глагола to have в Past Indefinite образуется с помощью вспомогательного глагола to do (did):

Did you have a good time at the weekend? Вы хорошо провели время в выходные?

Вопросительная форма глагола to have в Future Indefinite образуется путём постановки вспомогательного глагола shall (will) перед подлежащим:

Will you have any free time tomorrow? Завтра у тебя будет свободное время?
When will you have any free time? Когда у тебя будет свободное время?

Отрицательная форма глагола to have в Present и Past Indefinite образуется двумя способами:

1) с помощью местоимения no (или отрицательной группы not any):
I have no car. У меня нет машины.
He has not any car. У него нет машины.
They had no choice. У них не было выбора

2) с помощью вспомогательного глагола to do (do, does, did) и отрицания not:
We do not have a telephone directory. У нас нет телефонного справочника.
He does not have a train ticket. У него нет билета на поезд.
I did not have much work to do yesterday. Вчера у меня было немного работы.

§ 3. Оборот there + to be
Оборот there + to be используется для выражения наличия или отсутствия какого-либо лица или предмета в определённом месте и переводится на русский язык при помощи слов: есть, имеется, находится, существует или близкими по значению. Перевод предложений с оборотом there + to be нужно начинать с обстоятельства места, если оно указано, или со сказуемого, если обстоятельство отсутствует.

There was an accident on the road. На дороге произошла авария.
There are many types of cars. Существует много типов вагонов.

Оборот there + to be утратило какое-либо значение и стало формальным, т.е. оно не переводится. Глагол to be употребляется в соответствующем времени и числе, которое согласуется с последующим существительным. (There is a car…; There are cars…; There was a car…; There were cars…; There will be a car…).

В вопросительной форме глагол to be ставится на первое место (перед there). Если предложение в Future Indefinite, то на первое место переносится вспомогательный глагол will. В отрицательной форме после глагола to be ставится отрицательное местоимение no (или отрицательные группы not any, not many и т.п.).

1) Are there usually two conductors in the carriage? В пассажирском вагоне обычно бывает два проводника?
How many conductors are there usually in carriage? Сколько проводников обычно бывает в пассажирском вагоне?

There are no conductors in the freight car. В товарном вагоне нет проводников.
2) Were there two vacant seats in the bus? В автобусе было два свободных места?
How many vacant seats were there in the bus? Сколько свободных мест было в автобусе?

There were no vacant seats in the bus. В автобусе не было свободных мест.
3) Will there be 6 stations on this Metro line? На этой линии метро будет 6 станций?
How many stations will there be on this line? Сколько станций будет на этой линии метро?
There will be not many stations on this Metro line. На этой линии метро будет не много станций.
§ 4. Функции глагола to be

<table>
<thead>
<tr>
<th>Functions</th>
<th>English</th>
<th>Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Глагол-связка (be+ сущ., прил., или числ.)</td>
<td>The length of the Kuibyshev Railway is 4,800 km. The speed of the steam locos was not high</td>
<td>Протяжённость Куйбышевской железной дороги – 4,800 км. Скорость паровозов была не высокая.</td>
</tr>
</tbody>
</table>

Вспомогательный глагол:
- Continuous Tenses (be+ Participle I)
- Passive Voice (be+ Participle II)

<table>
<thead>
<tr>
<th>Functions</th>
<th>English</th>
<th>Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>He was driving a car at a high speed. The car will be repaired in 2 days.</td>
<td>Он вёл машину на высокой скорости. Машина будет отремонтирована через 2 дня.</td>
<td></td>
</tr>
</tbody>
</table>

Модальный глагол (be+ Infinitive с частицей to):

<table>
<thead>
<tr>
<th>Functions</th>
<th>English</th>
<th>Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>He is to come to the lab at 10 o’clock.</td>
<td>Он должен прийти в лабораторию в 10 часов.</td>
<td></td>
</tr>
</tbody>
</table>

§ 5. Функции глагола to have

<table>
<thead>
<tr>
<th>Functions</th>
<th>English</th>
<th>Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Смысловой глагол (have + сущ.)</td>
<td>These labs have the most modern equipment</td>
<td>В этих лабораториях есть самое современное оборудование.</td>
</tr>
</tbody>
</table>

Вспомогательный глагол
- Perfect Tenses (have+ Participle II)

<table>
<thead>
<tr>
<th>Functions</th>
<th>English</th>
<th>Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>These labs have bought modern equipment.</td>
<td>Эти лаборатории закупили современное оборудование</td>
<td></td>
</tr>
</tbody>
</table>

Модальный глагол (have+ Infinitive с частицей to)

<table>
<thead>
<tr>
<th>Functions</th>
<th>English</th>
<th>Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>These labs have to buy new equipment.</td>
<td>Эти лаборатории должны закупить новое оборудование</td>
<td></td>
</tr>
</tbody>
</table>

§ 6. Основные формы глагола

Глагол в английском языке имеет четыре основные формы. По способу образования второй и третьей форм глаголы делятся на правильные (стандартные) и неправильные (нестандартные).

<table>
<thead>
<tr>
<th></th>
<th>I форма</th>
<th>II форма</th>
<th>III форма</th>
<th>IV форма</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Past</td>
<td>Past</td>
<td>Present</td>
<td>Participle</td>
</tr>
<tr>
<td>live</td>
<td>lived</td>
<td>lived</td>
<td>living</td>
<td></td>
</tr>
<tr>
<td>begin</td>
<td>began</td>
<td>begun</td>
<td>beginning</td>
<td></td>
</tr>
</tbody>
</table>

§ 7. Времена групп Indefinite, Continuous, Perfect в действительном и страдательном залогах

Группа времен Indefinite представляет действие как факт и служит для выражения отдельных или повторяющихся действий в настоящем, прошедшем или будущем времени.
Группа времён Continuous представляет действие как процесс и служит для выражения продолжающегося, незаконченного действия, происходящего в определённый момент в настоящем, прошедшем или будущем времени.

**The Present Continuous Tense** выражает действие, совершающееся в момент речи. Часто уточняется словами:
- now сейчас; still всё ещё; at present в настоящее время; while пока.

Например: He is carrying out an experiment now. – Он сейчас проводит эксперимент.

**The Past Continuous Tense** выражает незаконченное действие:
- совершавшееся в определённый момент в прошлом, который может обозначаться либо точным указанием времени (at...o'clock; at that moment; from...till; all day long; throughout 2003; the whole evening), либо другим однократным действием, выраженным глаголом в Past Indefinite.

Например: The car was being repaired all day long – Машина ремонтировали весь день.

**The Future Continuous Tense** выражает незаконченное действие, которое будет совершаться в определённый момент в будущем. Этот момент может быть обозначен обстоятельствами типа (at...o'clock, at that time) или придаточным предложением.

Например: She will be working till you come. – Она будет работать до вашего прихода.

**The Present Perfect Tense** выражает действие, совершённое к определённому моменту в настоящем, прошедшем или будущем времени.

- **The Present Perfect Tense** выражает действие, завершившееся к моменту речи. Этот момент: а) может быть совсем не обозначен. Например: The car has been repaired. – Машина отремонтировали. б) может быть выражен обстоятельствами типа already уже, recently, lately недавно, ever когда-либо, never никогда, just только что, not yet ещё не, today сегодня, this week (month, year) на этой неделе (месяце, году), for ages целую вечность.

Например: I have never been to London. – Я никогда не был в Лондоне.
The Present Perfect Tense также может выражать действие, которое началось в прошлом и не закончилось к данному моменту. Часто в этом случае употребляется предлог since.

Например: She has not been to Moscow since 1990. – Она не была в Москве с 1990 года.

► The Past Perfect Tense выражает действие, завершённое до какого-либо момента или действия в прошлом. Этот момент может быть обозначен обстоятельством с предлогом by на придаточном предложением с глаголом in Past Indefinite.

Например: By the 1st of September all the road works had been finished. – К первому сентября все дорожные работы были закончены. When we came to the station, the train had already left. – Когда мы пришли на станцию, поезд уже ушёл.

► The Future Perfect Tense выражает действие, которое будет завершено до определённого момента, или действия в будущем. Этот момент уточняется обстоятельством с предлогом by на придаточном предложением с глаголом в Present Indefinite.

Например: When you come I shall have finished translating the text. – Когда ты придёшь, я закончу переводить текст. By the end of the year the railway will have been opened for traffic. – К концу года железная дорога будет открыта для движения.

<table>
<thead>
<tr>
<th>Таблица времён в действительном залоге (Tenses in Active Voice)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Present</strong></td>
</tr>
<tr>
<td>Indefinite</td>
</tr>
<tr>
<td>Continuous</td>
</tr>
<tr>
<td>Perfect</td>
</tr>
</tbody>
</table>

Спряжение глагола to ask в действительном залоге

<table>
<thead>
<tr>
<th>Спряжение глагола to write в разных временах</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Present</strong></td>
</tr>
<tr>
<td>Indefinite</td>
</tr>
<tr>
<td>Continuous</td>
</tr>
<tr>
<td>Perfect</td>
</tr>
</tbody>
</table>

Перевод глагола to write в разных временах

137
Таблица времён в страдательном залоге (Tenses in Passive Voice)

<table>
<thead>
<tr>
<th>to be+V3</th>
<th>Present</th>
<th>Past</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indefinite</td>
<td>am is are + V3</td>
<td>was were + V3</td>
<td>shall will + be V3</td>
</tr>
<tr>
<td>Continuous</td>
<td>am is are + being V3</td>
<td>was were + being V3</td>
<td>________</td>
</tr>
<tr>
<td>Perfect</td>
<td>have has + been V3</td>
<td>had been + V3</td>
<td>shall will + have been V3</td>
</tr>
</tbody>
</table>

Спряжение глагола to ask в страдательном залоге

<table>
<thead>
<tr>
<th></th>
<th>Present</th>
<th>Past</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indefinite</td>
<td>I am asked he, she, it is asked we, you, they are asked</td>
<td>I, he, she, it was asked we, you, they were asked</td>
<td>I, we shall be asked he, she, it, we, you, they will be asked</td>
</tr>
<tr>
<td>Continuous</td>
<td>I am being asked he, she, it is being asked we, you, they are being asked</td>
<td>I, he, she was being asked we, you, they were being asked</td>
<td>________</td>
</tr>
<tr>
<td>Perfect</td>
<td>I, we, you, they have been asked he, she, it has been asked</td>
<td>I, he, she, it, we, you, they had been asked</td>
<td>I, we shall have been asked he, she, it, we, you, they will have been asked</td>
</tr>
</tbody>
</table>

Примечания:
1) Подлежущее в английском предложении с глаголом в страдательном залоге переводится на русский язык в винительном или дательном падежах.
He was asked to buy tickets. Его попросили купить билеты.
He was asked many questions. Ему задали много вопросов.
2) За сказуемым в страдательном залоге в английском предложении может следовать предлог. При переводе на русский язык этот предлог ставится перед подлежащим.
This accident is much spoken about. Об этом нечастом случае много говорят.

§ 8. Согласование времён (Sequence of Tenses)
### § 9. Modal Verbs

<table>
<thead>
<tr>
<th>Modals</th>
<th>Present</th>
<th>Past</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>must</strong></td>
<td>должен</td>
<td>could</td>
<td>will have to</td>
</tr>
<tr>
<td>All drivers <em>must</em> follow the traffic rules. – Все водители <em>должны</em> соблюдать правила дорожного движения.</td>
<td>He <em>could</em> not start his car. – Он <em>не смог</em> завести машину.</td>
<td>He said that the train <em>might</em> be late. – Он сказал, что поезд <em>может</em> опоздать. I was told that I <em>might</em> come in. – Мне <em>разрешили</em> войти.</td>
<td></td>
</tr>
<tr>
<td><strong>can</strong></td>
<td><em>мочь, уметь</em></td>
<td><strong>may</strong></td>
<td><strong>should</strong></td>
</tr>
<tr>
<td>He <em>can</em> drive a car. – Он <em>умеет</em> водить машину.</td>
<td>You <em>may</em> use my mobile telephone. – <em>Ты можешь</em> воспользоваться моим мобильным телефоном.</td>
<td>He <em>should</em> be more attentive. – Ему <em>следует</em> быть внимательнее.</td>
<td></td>
</tr>
<tr>
<td><strong>may</strong></td>
<td><em>мочь, иметь разрешение</em></td>
<td><strong>should</strong></td>
<td><strong>need (not)</strong></td>
</tr>
<tr>
<td>You <em>may</em> use my mobile telephone. – <em>Ты можешь</em> воспользоваться моим мобильным телефоном.</td>
<td>He said that the train <em>might</em> be late. – Он сказал, что поезд <em>может</em> опоздать. I was told that I <em>might</em> come in. – Мне <em>разрешили</em> войти.</td>
<td>You <em>need</em> not come here tomorrow. – <em>Можете</em> не приходить сюда завтра. You <em>needn’t</em> buy any tickets; the admission is free. – <em>Билеты не нужно</em> покупать; вход – <strong>свободный</strong>.</td>
<td></td>
</tr>
<tr>
<td><strong>should</strong></td>
<td><strong>need (not)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>He <em>should</em> be more attentive. – Ему <em>следует</em> быть внимательнее.</td>
<td>You <em>need</em> not come here tomorrow. – <em>Можете</em> не приходить сюда завтра. You <em>needn’t</em> buy any tickets; the admission is free. – <em>Билеты не нужно</em> покупать; вход – <strong>свободный</strong>.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### § 10. Equivalents of Modal Verbs

<table>
<thead>
<tr>
<th>Modals</th>
<th>Present</th>
<th>Past</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>must</strong> = to have to, to be to</td>
<td><strong>have to</strong></td>
<td><strong>had to</strong></td>
<td><strong>shall have to</strong></td>
</tr>
<tr>
<td><strong>can</strong> = to be able to</td>
<td><strong>has to</strong></td>
<td><strong>shall have to</strong></td>
<td><strong>will have to</strong></td>
</tr>
<tr>
<td><strong>may</strong> = to be allowed to</td>
<td><strong>may</strong></td>
<td><strong>may</strong></td>
<td><strong>may</strong></td>
</tr>
</tbody>
</table>
He has to work hard. – Ему приходится много работать.
He had to work hard. – Ему пришлось много работать.
He will have to work hard. – Ему придётся много работать.

am to is to are to
do ж ен, вынужден
The train is to arrive at 5. – Поезд должен прийти в 5.

was to were to
do ж ен был, вынужден был
The train was to arrive at 5. – Поезд должен был прибыть в 5.

am able to is able to are able to
мочь, уметь
He is able to run 10 km. – Он может пробежать 10 км.

was able to were able to смог, сумел
He was able to run 10 km. – Он смог пробежать 10 км.

shall be able to will be able to
сможет, сумеет
He will be able to run 10 km. – Он сможет пробежать 10 км.

am allowed to is allowed to are allowed to
мочь, иметь разрешение
She is allowed to operate the computer. – Ей разрешают работать на компьютере.

was allowed to were allowed to разрешили
She was allowed to operate the computer. – Ей разрешили поработать на компьютере.

shall be allowed to will be allowed to
сможет, разрешат
She will be allowed to operate the computer. – Ей разрешат поработать на компьютере.

§ 11. Порядок слов в утвердительных предложениях

В отличие от русского языка, где свободный порядок слов, в английском языке строго фиксированный порядок слов. Схема порядка слов в предложении следующая:


James Watt invented the stationary steam engine in 1763.
In Russia the first steam locomotive was built by the Cherepanovs.

§ 12. Порядок слов в вопросительных предложениях

В английском языке существует несколько типов вопросов. Мы рассмотрим общие и специальные.

а) Общий вопрос – это вопрос, который задаётся ко всему предложению и требует краткого ответа “да” или “нет”. На первое место в таких вопросах ставится вспомогательный глагол. Схема порядка слов в общем вопросе следующая:

вспомогательный (модальный) глагол подлежащее основной глагол второстепенные члены предложения

Do you live in London?
Are they playing chess now?
May I take your pen?
Если сказуемое простое, то нужно употреблять вспомогательный глагол to do (do – если сказуемое в I форме без окончания –s; does – если сказуемое в I форме с окончанием –s; did – если сказуемое во II форме), при этом основной глагол ставится в I форме без окончания –s.

They speak English.  Do they speak English?
She goes to school.  Does she go to school?
He bought a car.  Did he buy a car?

Если сказуемое составное, то вспомогательный (или модальный) глагол, который входит в состав сказуемого, нужно перенести на первое место в предложении, при этом форма основного глагола не изменяется.

He has already left.  Has he already left?
They were going home.  Were they going home?
She can speak English.  Can she speak English?
Paul will come at 6.  Will Paul come at 6?

б) Специальный вопрос – это вопрос, который задаётся к одному члену предложения и требует полного ответа. Схема порядка слов в специальном вопросе следующая:

<table>
<thead>
<tr>
<th>Вопросительное слово</th>
<th>Вспомогательный (модальный) глагол</th>
<th>Подлежащее</th>
<th>Основной глагол</th>
<th>Второстепенные члены предложения</th>
</tr>
</thead>
<tbody>
<tr>
<td>Where</td>
<td>does</td>
<td>he</td>
<td>live?</td>
<td>now? at the station?</td>
</tr>
<tr>
<td>When</td>
<td>are</td>
<td>you</td>
<td>doing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>will</td>
<td>the train</td>
<td>arrive</td>
<td></td>
</tr>
</tbody>
</table>

Вопросительные слова:
who кто; whom кого, кому, кем; whose чей, чья, чьё; what что, какой; which who? to which (из двух или нескольких): where где, куда; when когда; how как; how long как долго; how often как часто; how many, how much сколько; why почему, зачем.

Примечания:
She studies at the Railway Academy.  What Academy does she study at?
They walked 10 km.  How many kilometers did they walk?

They like to read books.  Who likes to read books?
We are reading a book.  Who is reading a book?
They have gone.  Who has gone?
The articles were translated.  What was translated?
I shall repair the engine.  Who will repair the engine?

Порядок слов в вопросительных предложениях с простым сказуемым
<table>
<thead>
<tr>
<th>Утвердительное предложение</th>
<th>1. They 2. He 3. She</th>
<th>work works worked</th>
<th>at the railway, at the railway, at the railway</th>
</tr>
</thead>
<tbody>
<tr>
<td>Общий вопрос</td>
<td>1. Do 2. Does 3. Did</td>
<td>they he she</td>
<td>work work work at the railway? at the railway? at the railway?</td>
</tr>
<tr>
<td>Специальный вопрос к определению</td>
<td>1. What railway 2. What railway 3. What railway</td>
<td>do does did he she</td>
<td>work work work at? at? at?</td>
</tr>
<tr>
<td>Вопрос к подлежащему</td>
<td>1. Who 2. Who 3. Who</td>
<td>works works worked</td>
<td>at the railway? at the railway? at the railway?</td>
</tr>
</tbody>
</table>

### Порядок слов в вопросительных предложениях с составным сказуемым

<table>
<thead>
<tr>
<th>Утвердительное предложение</th>
<th>1. They 2. His friends 3. She</th>
<th>are building have left may use</th>
<th>a large house for London my mobile phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Общий вопрос</td>
<td>1. Are 2. Have 3. May</td>
<td>they his friends she</td>
<td>building left use</td>
</tr>
<tr>
<td>Специальный вопрос</td>
<td>1. What 2. Where 3. What</td>
<td>are have may</td>
<td>they his friends she building? left use?</td>
</tr>
<tr>
<td>Специальный вопрос к определению</td>
<td>1. What house 2. What city 3. Whose phone</td>
<td>are have may</td>
<td>they his friends she building? left use?</td>
</tr>
<tr>
<td>Вопрос к подлежащему</td>
<td>1. Who 2. Who 3. Who</td>
<td>is has may</td>
<td>building left use</td>
</tr>
</tbody>
</table>

### Примечание:
Порядок слов в вопросительных предложениях с оборотом there to be и со сказуемым to be или to have см. в §1, §2, §3.

### § 13. Порядок слов в отрицательных предложениях

Отрицательная форма предложений образуется при помощи отрицания **not** или **no**.

1. Если сказуемое простое, то отрицание **not** ставится после вспомогательного глагola to do (do, does, did), причем само сказуемое нужно поставить в I форму.

   They **study** at the Institute.  
   They do **(don’t) study** at the Institute.

   This firm **repairs** computers.  
   This firm does not **(doesn’t repair** computers.

   In summer I **traveled** by sea.  
   In summer I **did not (didn’t travel** by sea.

   He **bought** a ticket in advance.  
   He did not **(didn’t buy** a ticket in advance.

2. Если сказуемое составное глагольное, то отрицание **not** ставится после вспомогательного или модального глагола, входящего в состав сказуемого; при этом форма основного глагола не изменяется.

   The train has already **arrived**.  
   The train has not **(hasn’t) arrived** yet.

   The escalator is being **repaired** now.  
   The escalator is not **(isn’t) being repaired** now.
She can carry this heavy suitcase. She cannot (can't) carry this heavy suitcase.

We were invited to the conference. We were not (weren't) invited to the conference.

Примечание: Порядок слов в отрицательных предложениях с оборотом there+to be и со сказуемым to be или to have см. в §1, §2, §3.

§ 14. Притяжательный падеж имени существительного
(The Possessive Case)

Существительное в притяжательном падеже является определением к последующему существительному и отвечает на вопрос whose? чей?

Притяжательный падеж существительных в единственном числе образуется при помощи апострофа и окончания -’s (my friend’s letter – письмо моего друга).

Притяжательный падеж существительных во множественном числе образуется с помощью только апострофа (my friends’ letter – письмо моих друзей).

В притяжательном падеже употребляются:

a) существительные, обозначающие одушевлённые предметы:
   this professor’s lecture лекция этого профессора
   our secretary’s office офис нашего секретаря

b) существительные, обозначающие названия стран, городов:
   Russia’s gold reserve золотой запас России

c) существительные, обозначающие меры времени, расстояния, веса:
   three hours’ flight трёхчасовой полёт
   five kilometers’ distance расстояние в 5 километров
   two hours’ work двухчасовая работа
   the ship’s arrival прибытие корабля
   the sun’s influence влияние солнца

d) Существительные world, earth, planet, sun, moon, city, ship, train, company, commission и т. п.:
   the world’s people народ мира
   the ship’s arrival прибытие корабля

е) наречия времени today, yesterday, tomorrow:
   yesterday’s meeting вчерашнее собрание

§ 15. Степени сравнения прилагательных и наречий
(Comparison Degrees of Adjectives and Adverbs)

<table>
<thead>
<tr>
<th>Положительная степень</th>
<th>Сравнительная степень</th>
<th>Превосходная степень</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Односложные прилагательные и наречия</td>
<td></td>
<td></td>
</tr>
<tr>
<td>high - высокий</td>
<td>higher – выше, более высокий</td>
<td>the highest – высочайший, самый высокий</td>
</tr>
<tr>
<td>near - близко</td>
<td>nearer - ближе</td>
<td></td>
</tr>
<tr>
<td>2. Двусложные прилагательные и наречия, которые заканчиваются на -у</td>
<td></td>
<td></td>
</tr>
<tr>
<td>happy – счастливый</td>
<td>happier – счастливее, более счастливый</td>
<td>the happiest – самый счастливый</td>
</tr>
<tr>
<td>interesting – интересный</td>
<td>more interesting – интереснее, более интересный</td>
<td>the most interesting – самый интересный</td>
</tr>
<tr>
<td>less interesting – менее</td>
<td>the least interesting – самый интересный</td>
<td></td>
</tr>
</tbody>
</table>

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Примечание:
Некоторые двусложные прилагательные, оканчивающиеся на -у́й, -о́в (clever умный, narrow узкий, shallow мелкий) образуют степени сравнения двумя способами. Например: narrower уще, the narrowest самый узкий или more narrow уще, the most narrow самый узкий.

### § 16. Личные и притяжательные местоимения (Personal and Possessive Pronouns)

<table>
<thead>
<tr>
<th>Личные местоимения (именительный падеж)</th>
<th>Личные местоимения (объектный падеж)</th>
<th>Притяжательные местоимения</th>
<th>Абсолютные формы</th>
</tr>
</thead>
<tbody>
<tr>
<td>I я</td>
<td>me меня, мне</td>
<td>my мой (-я, -ё, -у)</td>
<td>mine мой (-я, -ё, -у)</td>
</tr>
<tr>
<td>you ты, Вы</td>
<td>you тебя, Вас, тебе, Вам</td>
<td>your твой (-я, -ё, -у)</td>
<td>yours твой (-я, -ё, -у)</td>
</tr>
<tr>
<td>he он</td>
<td>him его, ему</td>
<td>his его</td>
<td>his его</td>
</tr>
<tr>
<td>she она</td>
<td>her её, ей</td>
<td>her её</td>
<td>hers её</td>
</tr>
<tr>
<td>it оно, она, она</td>
<td>it ею, её, ему, ей</td>
<td>its её, её</td>
<td>its её</td>
</tr>
<tr>
<td>we мы</td>
<td>us нас, нам</td>
<td>our наш (-а, -э, -у)</td>
<td>ours наш (-а, -э, -у)</td>
</tr>
<tr>
<td>you вы</td>
<td>you вас, вам</td>
<td>your ваш</td>
<td>yours ваш</td>
</tr>
<tr>
<td>they они</td>
<td>them их, им</td>
<td>their их</td>
<td>theirs их</td>
</tr>
</tbody>
</table>

### § 17. Причастие (The Participle)

Причастие является неличной формой глагола. В английском языке существует два вида причастий: Participle I и Participle II.

- Participle I (причастие настоящего времени) может иметь простую форму, которая образуется путём прибавления окончания -ing к основе глагола (to read – reading, to ask – asking, to drive – driving), и сложные формы, которые образуются при помощи вспомогательного глагола to be или to have и III формы основного глагола (to read – having read, to ask – being asked, to stop – having stopped).

**Participle I**

Participle I (non-perfect) выполняет в предложении следующие функции:

1) часть составного глагольного сказуемого в Continuous.

He is waiting for you near the booking office. Он ждёт вас у кассы.

<table>
<thead>
<tr>
<th>Исключения:</th>
<th>интересный</th>
<th>не интересный</th>
</tr>
</thead>
<tbody>
<tr>
<td>good, well – хороший, хорошо</td>
<td>better – лучше</td>
<td>the best – самый лучший, лучше всего</td>
</tr>
<tr>
<td>bad, badly – плохой, плохо</td>
<td>worse – хуже</td>
<td>the worst – самый плохой, хуже всего</td>
</tr>
<tr>
<td>many, much – много</td>
<td>more – больше</td>
<td>the most – самый больший, больше всего</td>
</tr>
<tr>
<td>little – мало</td>
<td>less – меньше</td>
<td>the least – самый маленький, меньше всего</td>
</tr>
</tbody>
</table>
2) определение. Participle I в функции определения находится до или после определяемого слова и переводится на русский язык действительным причастием настоящего времени, оканчивающимся на –ущий, -ющий, -ющий (делающий, бегущий, соединяющий) или действительным причастием прошедшего времени, оканчивающимся на –ший (когда глагол-сказуемое стоит в прошедшем времени) (делавший, бежавший, соединивший).

The man waiting for you has come from London. Человек, ожидавший вас, приехал из Лондона.
The engineer delivering the report gave many interesting examples. Инженер, делящий доклад, привёл много интересных примеров.

3) обстоятельство. Participle I в функции обстоятельства находится в начале предложения или в середине предложения после запятой, и переводится на русский язык деепричастием несовершенного вида, оканчивающимся на -а, -я (делая, рассказывая, рисуя, проезжая).

He saw many interesting things, while traveling about the country. Путешествуя по стране, он видел много интересного.
Waiting for the train arrival I looked through the magazines. Ожидая прибытия поезда, я просматривал журналы.

Примечания:
1. Participle I не всегда имеет эквивалентное деепричастие в русском языке; в таких случаях оно переводится придаточным предложением. Например: Writing a letter, I’m… Когда я писал письмо…
2. Часто перед Participle I в функции обстоятельства ставится союз while или when. Такие предложения можно перевести 3 способами:
While translating the article the student consulted the dictionary. Переводя статью, студент пользовался словарем.
2) Когда студент переводил статью, он пользовался словарём.
3) При переводе статьи студент пользовался словарём.

Participle I (perfect) выражает действие, предшествующее действию, выраженному сказуемым. Оно обычно находится в начале предложения и переводится на русский язык деепричастием совершенного вида (делая, рассказывая, прибежав). В предложении Participle I (perfect) выполняет функцию обстоятельства.

Participle II

Participle II может выполнять в предложении следующие функции:
1) часть составного глагольного сказуемого.
The railway will be opened for traffic. Железная дорога будет открыта для движения в следующем месяце.

2) определение. Participle II в функции определения находится до или после определяемого слова и переводится на русский язык страдательным причастием настоящего или прошедшего времени, оканчивающимся на –емый (-имый), -ннй, -нй (сделанный, используемый, вымытый).
The proposed plan is very interesting. They agreed to the design worked out by our engineer. 3) обстоятельство. Particle II в функции обстоятельства находится в начале предложения, часто после союзов when, if, though, и переводится на русский язык придаточным предложением или существительным с предлогом. Though overstressed, the machine kept on running. When burned, coal produces heat.

§ 18. Герундий (The Gerund)

Герундий – неличная форма глагола, сочетающая грамматические особенности как глагола, так и существительного. Герундий образуется путём прибавления к основе глагола окончания -ing. В русском языке соответствующей формы нет, поэтому герундий может преводиться существительным, глаголом, придаточным предложением или деепричастием.

Формы герундия

<table>
<thead>
<tr>
<th></th>
<th>Active</th>
<th>Passive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indefinite</td>
<td>writing</td>
<td>being written</td>
</tr>
<tr>
<td>Perfect</td>
<td>having written</td>
<td>having been written</td>
</tr>
</tbody>
</table>

Сравните переводы предложений:

He likes reading. → Он любит читать.
(герундий действительного залога)

He likes being read. → Он любит, когда его читают.
(герундий страдательного залога)

I am surprised at his missing lessons so often. → Меня удивляет то, что он так часто пропускает уроки.
(неперфектные формы герундия обозначают одновременность)

I am surprised at your having missed so many lessons this term. → Я удивлён, что вы пропустили так много уроков в этом семестре.
(перфектные формы герундия обозначают предшествование и употребляются довольно редко)

Функции герундия в предложении и способы его перевода на русский язык

<table>
<thead>
<tr>
<th>Functions</th>
<th>English</th>
<th>Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>полежащее (переводится существительным или инфинитивом)</td>
<td>Flying is better for long journeys but traveling by car is more interesting.</td>
<td>На длинные расстояния лучше летать самолётом, но на машине путешествовать интереснее.</td>
</tr>
<tr>
<td>именная часть составного сказуемого (переводится существительным или инфинитивом)</td>
<td>His dream is traveling abroad.</td>
<td>Его мечта – съездить за границу.</td>
</tr>
<tr>
<td>дополнение: а) прямое (переводится существительным или инфинитивом)</td>
<td>This equipment requires repairing.</td>
<td>Это оборудование нуждается в ремонте.</td>
</tr>
<tr>
<td>б) предложное</td>
<td>The engineer insisted on our</td>
<td>Инженер настаивал на том,</td>
</tr>
</tbody>
</table>
Примечание:
Для определения функции герундия важно знать, какое место в предложении он занимает:
1) Gerund в функции подлежащего находится в начале предложения, без предлога.
2) Gerund в функции именной части составного сказуемого находится после глагола-связки to be.
3) Gerund в функции дополнения находится после сказуемого.
4) Gerund в функции определения употребляется с предлогом of (иногда for), находится после определяемого слова.
5) Gerund в функции обстоятельства употребляется с предлогами (before, after, on, by, instead of, in, without), находится в начале или конце предложения.

§ 19. Функции слов с окончанием -ing в предложении

<table>
<thead>
<tr>
<th>Functions</th>
<th>English</th>
<th>Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>подлежащее (герундий)</td>
<td>Smoking is not allowed here.</td>
<td>Курить здесь запрещено.</td>
</tr>
<tr>
<td>часть составного глагольного сказуемого (причастие I)</td>
<td>The train was moving at a high speed.</td>
<td>Поезд двигался с большой скоростью.</td>
</tr>
<tr>
<td>часть составного именного сказуемого</td>
<td>His hobby is driving a car.</td>
<td>Его любимое занятие — водить машину.</td>
</tr>
<tr>
<td>Functions</td>
<td>English</td>
<td>Russian</td>
</tr>
<tr>
<td>-----------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>сказуемое в Past Indefinite</td>
<td>Japanese Railways upgraded several mainlines for high-speed traffic.</td>
<td>Японские железные дороги реконструировали несколько магистралей для высокоскоростных перевозок.</td>
</tr>
<tr>
<td>часть сказуемого в Perfect Tenses и в Passive Voice</td>
<td>This mainline will be upgraded for high-speed traffic.</td>
<td>Эта магистраль будет реконструирована для высокоскоростного движения.</td>
</tr>
<tr>
<td>определение</td>
<td>The railway line upgraded last year is being used for high-speed traffic.</td>
<td>Железнодорожная линия, реконструированная в прошлом году, используется для высокоскоростных перевозок.</td>
</tr>
<tr>
<td>обстоятельство</td>
<td>When upgraded, this railway line will be used for high-speed traffic.</td>
<td>После реконструкции эта железнодорожная линия будет использоваться для высокоскоростных перевозок.</td>
</tr>
</tbody>
</table>

§ 20. Функции слов с окончанием -ed в предложении

Инфинитив, являясь неличной формой глагола, имеет свойства как существительного, так и глагола. Перед инфинитивом обычно стоит частица to.

Формы инфинитива

<table>
<thead>
<tr>
<th>Indefinite</th>
<th>Active</th>
<th>Passive</th>
</tr>
</thead>
<tbody>
<tr>
<td>to do</td>
<td>to be doing</td>
<td>to have done</td>
</tr>
<tr>
<td>to have done</td>
<td>to have been done</td>
<td></td>
</tr>
</tbody>
</table>

Сравните перевод предложений:

He is glad to help his friend — Он рад помочь своему другу.
He is glad to be helping his friend. — Он рад, что сейчас помогает своему другу (сейчас).
He is glad to have helped his friend. — Он рад, что помог своему другу.
He is glad to be helped. — Он рад, что ему помогают.
He is glad to have been helped. — Он рад, что ему помогли.

Функции инфинитива в предложении и способы его перевода на русский язык

<table>
<thead>
<tr>
<th>Functions</th>
<th>English</th>
<th>Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indefinite</td>
<td>to do</td>
<td>to be doing</td>
</tr>
<tr>
<td>to have done</td>
<td>to have been done</td>
<td></td>
</tr>
<tr>
<td>Perfect</td>
<td>to do</td>
<td>to be doing</td>
</tr>
<tr>
<td>to have done</td>
<td>to have been done</td>
<td></td>
</tr>
</tbody>
</table>

§ 21. Инфинитив (The Infinitive)

Инфинитив, являясь неличной формой глагола, имеет свойства как существительного, так и глагола. Перед инфинитивом обычно стоит частица to.

Формы инфинитива

<table>
<thead>
<tr>
<th>Indefinite</th>
<th>Active</th>
<th>Passive</th>
</tr>
</thead>
<tbody>
<tr>
<td>to do</td>
<td>to be doing</td>
<td>to have done</td>
</tr>
<tr>
<td>to have done</td>
<td>to have been done</td>
<td></td>
</tr>
</tbody>
</table>

Сравните перевод предложений:

He is glad to help his friend — Он рад помочь своему другу.
He is glad to be helping his friend. — Он рад, что сейчас помогает своему другу (сейчас).
He is glad to have helped his friend. — Он рад, что помог своему другу.
He is glad to be helped. — Он рад, что ему помогают.
He is glad to have been helped. — Он рад, что ему помогли.

Функции инфинитива в предложении и способы его перевода на русский язык

<table>
<thead>
<tr>
<th>Functions</th>
<th>English</th>
<th>Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indefinite</td>
<td>to do</td>
<td>to be doing</td>
</tr>
<tr>
<td>to have done</td>
<td>to have been done</td>
<td></td>
</tr>
<tr>
<td>Perfect</td>
<td>to do</td>
<td>to be doing</td>
</tr>
<tr>
<td>to have done</td>
<td>to have been done</td>
<td></td>
</tr>
</tbody>
</table>

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Примечания:
1) Infinitive в функции подлежащего стоит в самом начале предложения перед сказуемым и переводится либо неопределенной формой глагола, либо существительным.
2) Infinitive как часть именного составного сказуемого стоит после глагола-связки to be и переводится либо неопределенной формой глагола, либо выражением заключается в том, чтобы-состоят в том, чтобы + неопределенная форма глагола.
3) Infinitive в функции дополнения стоит после глаголов (таких как: ask, decide, demand, expect, forget, learn, like, offer, plan, prepare, promise, refuse, remember, want, wish) или прилагательных (таких как: afraid to, glad to, prepared to, proud to, ready to, sorry to, surprised to) и переводится либо неопределенной формой глагола, либо личной формой глагола.
4) Infinitive в функции обстоятельства цели может стоять в самом начале предложения перед подлежащим, в конце предложения и после слов enough достаточно; too слишком. Иногда перед Infinitive ставится союз in order to чтобы, для того чтобы.
5) Infinitive в функции определения стоит после существительного или после слов the first первый, the last последний, the only единственный и т.п. После существительных Infinitive чаще всего стоит в пассивной форме (to be tested, to be built, to be read) и выражает действие, которое должно произойти или произойдёт в будущем. В этом случае Infinitive переводится определительным придаточным предложением с союзом который (который будет, который нужно, который следует).

§ 22. Инфинитивная конструкция "Сложное дополнение"
(The Complex Object)

The Complex Object (сложное дополнение) представляет собой инфинитивный оборот, состоящий из имени существительного (в именительном падеже) или местоимения (в объектном падеже) и инфинитива. Вся конструкция выполняет функцию дополнения, часто переводится придаточным предложением с союзами что, чтобы, как. Схема предложений со сложным дополнением:

<table>
<thead>
<tr>
<th>подлежащее</th>
<th>сказуемое</th>
<th>сложное</th>
<th>второстепенные члены</th>
</tr>
</thead>
</table>
Сложное дополнение употребляется после таких глаголов как:

- to want, to wish хотеть, желать; would (should) like хотелось бы; to suppose полагать, предполагать; to expect ожидать, предполагать; to know знать; to consider, to believe, to think считать, полагать, думать; to watch наблюдать; to notice замечать; to see видеть; to hear слышать; to make, to force, to cause заставлять; to order приказывать; to enable, to allow позволять, давать возможность; to let разрешать, позволять и т.п.

We know him to be a good specialist. Мы знаем, что он хороший специалист.

They expect the ship to arrive tonight. Они ожидают, что пароход прибудет сегодня вечером.

I thought you to be late. Я думал, что вы опоздаете.

Обратите внимание на то, что:

а) после глаголов восприятия (to see, to hear, to watch, to notice) и после глаголов (to make, to let) инфинитив употребляется без частины to. 

I have never heard her praise anybody’s work. Я никогда не слышал, чтобы она хвалила чью-либо работу.

Nobody noticed him go out. Никто не заметил, как он ушёл.

б) сложное дополнение после глаголов (to make, to cause, to force, to allow, to order, to enable) не переводится придаточным предложением.

He enabled us to repeat the experiment. Он дал нам возможность повторить эксперимент.

What made her leave this job? Что заставило её уйти с этой работы?

§ 23. Инфинитивная конструкция “Сложное подлежащее” (The Complex Subject)

The Complex Subject (сложное подлежащее) представляет собой инфинитивный оборот, состоящий из имени существительного или местоимения (в именительном падеже) и инфинитива с частицей to.

Схема предложений со сложным подлежащим:

<table>
<thead>
<tr>
<th>The president</th>
<th>was expected</th>
<th>to arrive</th>
<th>in our city in May.</th>
</tr>
</thead>
</table>

Сказуемое может быть выражено:

а) глаголами to know знать; to expect ожидать, полагать; to find находить, устанавливать; to suppose предполагать; to report сообщать; to consider, to think думать, считать; to say говорить; to hear слышать и т.п. в форме страдательного залога.

He is known to be a good specialist.

The train was reported to have arrived.

Перевод таких предложений нужно начинать со сказуемого, которое переводится неопределенно-личным предложением (Известно, что…; Познают, что…; Сообщили, что…; Слышили, что…).

Известно, что он хороший специалист. = Он, как известно, хороший специалист.

Сообщили, что поезд уже прибыл. = Поезд, как сообщили, уже прибыл.
b) глаголами в форме действительного залога to seem, to appear казаться, по-видимому, очевидно: to happen случаться; to prove, to turn out оказываться.

The new methods of work seem to be very effective. Инженер бы не сделал ошибку, если бы применил правильную формулу.

Do you happen to know Jane’s telephone number? Ты случайно не знаешь номер телефона Джейн?

c) составными глаголами to be likely вероятно, возможно; to be unlikely маловероятно, невероятно, вряд ли, едва ли; to be sure, to be certain несомненно, обязательно, конечно.

She is sure to come. Она обязательно придёт.

He is unlikely to be able to start his car. Едва ли он сможет завести машину.

§ 24. Условные предложения

В английском языке различают 3 типа условных предложений:

a) Первый тип выражает реальные, осуществимые условия в настоящем, прошедшем и будущем времени.

The engine driver will stop the train, if he sees some obstacle on the track. Машинист остановит поезд, если он увидит препятствие на пути.

Обратите внимание на то, что будущее время употребляется только в главном предложении, в придаточном предложении используется глагол в настоящем времени, но в значении будущего.

b) Второй тип выражает маловероятные, но выполнимые действия в настоящем или будущем. На русский язык такие предложения переводятся с частицей бы.

If they had a car, they would go to the country. Если бы у них был автомобиль, они бы поехали за город.

If I were you, I would buy the ticket in advance. (Если бы я был) на вашем месте, я бы купил билет заранее.

c) Третий тип выражает нереальные, невозможные условия, относящиеся к прошедшему периоду времени. На русский язык такие предложения переводятся с частицей бы.

The engineer would not have made the mistake, if he had used the correct formula. Инженер не сделал бы ошибку, если бы он применил правильную формулу.

Примечание:

Условных предложений второго и третьего типа союз if если может быть пропущен. В этом случае в придаточном предложении вспомогательный глагол (could, had, were) ставится перед подлежащим.

Had everybody come in time, we should have started out at 7 sharp. Если бы все собрались вовремя, мы бы вышли точно в 7.

Ниже для сравнения приведены условные предложения трёх типов:

<table>
<thead>
<tr>
<th>Типы условных предложений</th>
<th>Придаточное предложение</th>
<th>Главное предложение</th>
</tr>
</thead>
<tbody>
<tr>
<td>первый тип</td>
<td>If you hurry up,</td>
<td>you will catch the train.</td>
</tr>
<tr>
<td></td>
<td>(Present Indefinite)</td>
<td>(Future Indefinite)</td>
</tr>
<tr>
<td></td>
<td>Если ты поспешишь,</td>
<td>ты успеешь на поезд.</td>
</tr>
<tr>
<td>второй тип</td>
<td>If you hurried up,</td>
<td>you would catch the train.</td>
</tr>
<tr>
<td></td>
<td>(Past Indefinite)</td>
<td>(Future in the Past—would+Infinitive)</td>
</tr>
<tr>
<td></td>
<td>Если бы ты поспешил,</td>
<td>ты бы успел на поезд.</td>
</tr>
<tr>
<td>третий тип</td>
<td>If you had hurried up yesterday,</td>
<td>you would have caught the train.</td>
</tr>
<tr>
<td></td>
<td>(Past Perfect)</td>
<td>(would+ perfect Infinitive)</td>
</tr>
</tbody>
</table>
§ 25. Разные способы выражения определения
в английском языке

Оно может быть расположено перед определяемым существительным или после него.
Определение может быть выражено:

1) прилагательным.
   a fast train
   the successful experiment

2) существительным.
   a steam engine
   the car keys
   the passenger train
   the train speed

Примечание:
Если между артиклем (или другим определителем) и существительным, к которому оно относится, стоит несколько существительных, то они образуют цепочку определений.
Последнее существительное в этой цепочке является главным, с него рекомендуется начинать перевод всей цепочки определений.

my telephone number — мой номер телефона
the airplane wing — крыло самолёта
the roof engine car — автомобиль с паровым двигателем
the passenger service improvement — улучшение обслуживания пассажиров
the train speed increase problem — проблема увеличения скорости поездов

3) причастием (Participle I, Participle II), которое может стоять как перед существительным, так и после него.
   the tunnel linking two islands — тоннель, соединяющий два острова
   the terminal upgraded last year — вокзал, реконструированный в прошлом году
   the developing countries — развивающиеся страны
   the developed countries — развитые страны

4) герундием.
   a cost of operating the line — стоимость эксплуатации линии
   the possibility of constructing Metro — возможность строительства метро

5) инфинитивом.
   the work to be done — работа, которую предстоит сделать
   the bridge to be built — мост, который необходимо построить.

ТАБЛИЦА НЕСТАНДАРТНЫХ ГЛАГОЛОВ

<table>
<thead>
<tr>
<th>Infinitive</th>
<th>Past Simple</th>
<th>Participle II</th>
<th>перевод</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

152
<table>
<thead>
<tr>
<th>English</th>
<th>Past Simple</th>
<th>Present Participle</th>
<th>Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>be</td>
<td>was, were</td>
<td>been</td>
<td>быть</td>
</tr>
<tr>
<td>become</td>
<td>became</td>
<td>become</td>
<td>становиться, делаться</td>
</tr>
<tr>
<td>begin</td>
<td>began</td>
<td>begun</td>
<td>начинать</td>
</tr>
<tr>
<td>blow</td>
<td>blew</td>
<td>blown</td>
<td>дуть, раздувать</td>
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<tr>
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<td>broke</td>
<td>broken</td>
<td>ломать, нарушать</td>
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<tr>
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<td>brought</td>
<td>brought</td>
<td>приносить, привозить</td>
</tr>
<tr>
<td>build</td>
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<td>built</td>
<td>строить</td>
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<td>burnt</td>
<td>гореть, жечь</td>
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<td>buy</td>
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<td>покупать</td>
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<td>ловить, схватить</td>
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<td>chosen</td>
<td>выбирать</td>
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<td>стоить</td>
</tr>
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<td>cut</td>
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<td>резать</td>
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<td>dealt</td>
<td>dealt</td>
<td>иметь дело; торговать</td>
</tr>
<tr>
<td>do</td>
<td>did</td>
<td>done</td>
<td>делать</td>
</tr>
<tr>
<td>draw</td>
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</tr>
<tr>
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<td>drunk</td>
<td>пить</td>
</tr>
<tr>
<td>drive</td>
<td>drove</td>
<td>driven</td>
<td>вети, ехать; приводить в движение</td>
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<tr>
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<td>ate</td>
<td>eaten</td>
<td>есть</td>
</tr>
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<td>кормить, питать</td>
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<td>чувствовать</td>
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<td>находить, обнаруживать</td>
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<td>летать</td>
</tr>
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<td>запрещать</td>
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<td>forget</td>
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<td>забывать</td>
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<tr>
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<td>frozen</td>
<td>замораживать</td>
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<td>got</td>
<td>получать, доставать, становиться</td>
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<td>gave</td>
<td>given</td>
<td>давать, предоставлять</td>
</tr>
<tr>
<td>go</td>
<td>went</td>
<td>gone</td>
<td>идти, ехать</td>
</tr>
<tr>
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<td>grew</td>
<td>grown</td>
<td>расти, увеличиваться</td>
</tr>
<tr>
<td>hang</td>
<td>hung (hanged)</td>
<td>hung (hanged)</td>
<td>вешать, подвешивать, висеть</td>
</tr>
<tr>
<td>have</td>
<td>had</td>
<td>had</td>
<td>иметь</td>
</tr>
<tr>
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<td>heard</td>
<td>heard</td>
<td>слышать</td>
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<td>hid</td>
<td>hidden</td>
<td>пряч(ывать), скрывать(ящ)</td>
</tr>
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<td>hold</td>
<td>held</td>
<td>held</td>
<td>держать</td>
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<td>hurt</td>
<td>вредить</td>
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<td>keep</td>
<td>kept</td>
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<td>держать, хранить</td>
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<td>знать</td>
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<td>laid</td>
<td>класть, положить</td>
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<td>lead</td>
<td>led</td>
<td>led</td>
<td>вести, управлять</td>
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<td>learn</td>
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<td>узнавать, учить</td>
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<td>leave</td>
<td>left</td>
<td>left</td>
<td>оставлять, уходить, уезжать</td>
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<td>lain</td>
<td>lain</td>
<td>лежать</td>
</tr>
<tr>
<td>light</td>
<td>lit</td>
<td>lit</td>
<td>освещать, зажигать</td>
</tr>
<tr>
<td>lose</td>
<td>lost</td>
<td>lost</td>
<td>терять</td>
</tr>
<tr>
<td>make</td>
<td>made</td>
<td>made</td>
<td>делать, заставлять</td>
</tr>
<tr>
<td>mean</td>
<td>meant</td>
<td>meant</td>
<td>значить, означать; иметь в виду</td>
</tr>
<tr>
<td>meet</td>
<td>met</td>
<td>met</td>
<td>встречать</td>
</tr>
</tbody>
</table>
pay  paid  paid  платить
put  put  put  кладь, ставить
read  read  read  читать
ride  rode  ridden  ездить
ring  rang  rung  звонить
rise  rose  risen  вставать, возникать
run  run  run  бегать, управлять
say  said  said  говорить, сказать
see  saw  seen  видеть
seek  sought  sought  искать; стремиться
sell  sold  sold  продавать
send  sent  sent  посылать
set  set  set  ставить, помещать, устанавливать
shake  shook  shaken  трясти
shoot  shot  shot  стрелять
show  showed  shown  показывать
shut  shut  shut  закрывать
sing  sang  sung  петь
sink  sank  sung  тонуть, погружаться
sit  sat  sat  сидеть
sleep  slept  slept  спать
slide  slid  slid  скользить
speak  spoke  spoken  говорить, разговаривать
spend  spent  spent  тратить, проводить (время)
spoil  spoiled (spoilt)  spoiled (spoilt)  портить
spread  spread  spread  растягивать, распространять (св)
spring  sprung  sprung  прыгать, пружинить
stand  stood  stood  стоять; поставить; держаться
steal  stole  stolen  красть; красться
strike  struck  stricken (struck)  ударять, поражать
swim  swam  swum  плавать
swing  swung  swung  качаться, колебаться
take  took  taken  брать; принимать
teach  taught  taught  учить, преподавать
tear  tore  torn  разрывать
tell  told  told  сказать, сообщать, рассказывать
think  thought  thought  думать, полагать
throw  threw  thrown  бросить, кидать
wake  woke  woken (waken)  просыпаться; будить
wear  wore  worn  носить, изнашиваться
win  won  won  выигрывать, одерживать победу
write  wrote  written  писать, сочинять

БИБЛИОГРАФИЧЕСКИЙ СПИСОК
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