



**Non-commercial
Joint Stock
Company**

**ALMATY UNIVERSITY
OF POWER
ENGINEERING AND
TELECOMMUNICATIONS
NAMED AFTER
GUMARBEEK DAUKEEV**

Department for Language Studies

ENGLISH

Methodical guidelines for performing self-study assignments for the students
of A2 level

Almaty 2022

AUTHOR: E. S. Aldengozhayeva Methodical guidelines for performing self-study assignments for the students of A2 level – Almaty: AUPET, 2022. – 45 p.

The present methodical guidelines are intended for the first-year students of pre-intermediate level.

These methodological guidelines consist of 17 units and 2 parts. First part gives students examples of presentations and specific expressions and structures. Second part consists of texts with tasks and some more grammatical exercises. After text exercises contain questions and statements that can check up if a student knows the context.

Reviewer: associated professor of EE Department A. S. Baimaganov

Published according to the plan of publications of the noncommercial JSC «Almaty University of Power Engineering and Telecommunications» named after Gumarbek Daukeev, 2022.

©NCJSC «Almaty University of Power Engineering & Telecommunications»
named after Gumarbek Daukeev, 2022

Introduction

The present methodological guidelines are intended for the first-year students of pre-intermediate level. It gives students all the stages of presentations and several related topics. In many companies, presentations are now a common feature of working life. It is also becoming increasingly common to have to give presentations in English. Giving a presentation in a foreign language is a real challenge, even for those who have a good knowledge of the language. With this methodological guideline student can learn the vocabulary and expressions that they need when giving a presentation. There are also several useful tips that will help students to present in English more effectively. This methodological guideline consists of 17 units and 2 parts. First part gives students examples of presentations and specific expressions and structures. Second part consists of texts with tasks and some more grammatical exercises. After text exercises contain questions and statements that can check up if a student knows the context. Those texts which are a little bit more difficult than the rest have a vocabulary where students will enrich their vocabulary in English. Students can use the texts in several ways. Students can just read the text and translate it with a vocabulary below. On the other hand, if the text is not difficult for them it is not necessary to search for the words in the vocabulary, but to do the exercises instead, for better understanding of the text. All the texts contain up-to-date information and actual in modern life.

Part 1

Unit 1

Opening a presentation

Welcoming the audience

Good morning/afternoon, ladies and gentlemen.

Hello/Hi, everyone.

First of all, let me thank you all for coming here today.

I'm happy/delighted that so many of you could make it today.

Introducing yourself

Let me introduce myself. I'm Dave Elwood from...

For those of you who don't know me, my name's...

As you probably know, I'm the new HR manager.

I'm head of logistics here at Air Spares.

I'm here in my function as the Head of Controlling.

Saying what your topic is

As you can see on the screen, our topic today is...

Today's topic is...

What I'd like to present to you today is...

The subject of my presentation is...

Explaining why your topic is relevant for your audience

My talk is particularly relevant to those of you/us who...

Today's topic is of particular interest to those of you/us who...

My/The topic is very important for you because...

By the end of this talk you will be familiar with...

Unit 2

Structuring a Presentation

Most formal and many informal – presentations have three main parts and follow this simple formula:

1 Tell the audience what you are going to say! = Introduction

2 Say it! = main part

3 Tell them what you said! = Conclusion

There are given several ways you can tell the audience what you are going to say.

would like + Infinitive

Today *I'd like to tell* you about our new plans.

This morning *I'd like to bring* you up to date on our department.

Going to + Infinitive

I'm going to talk to you today about new developments in the R and D Department.

This afternoon *I'm going to be* reporting on the new division.

will + infinitive

I'll begin by explaining the function.

I'll start off by reviewing our progress.

After that, I'll *move* on to my next point.

Will be + verb -ing

I'll be talking about our guidelines for Internet use.

During the next our hour we'll *be looking* at the advantages of this system.

6) Complete sentences 1-8 with the correct form of the verb and a sentence ending from below.

You on the proposed training project

You up to date on SEKO's investment plans

You how the database works

At business opportunities in Asia

On our financial targets for the division

By telling you about what Jane's group is working on

About EU tax reform

~~You an overview of our present market position~~

1 give Today I'd like to give you an overview of our present market position.

2 show I'll be showing

3 talk During the next two hours we'll be

4 bring I'd like to

5 report This afternoon I'm going to

6 update Today I'd like to

7 look This morning we'll be

8 begin Today I'll

Structuring a Presentation 2 The purpose of the introduction is not only to tell the audience who you are, what the talk is about, and why it is relevant to them; you also want to tell the audience (briefly) how the talk is structured.

Here given some useful phrases to talk about the structure.

I've divided my presentation into three parts: a, b and c.

In my presentation I'll focus on three major issues.

First of all, I'll be looking at, second....., and third

I'll begin/start off by explaining ...

Then/Next/After that, I'll go on

Finally, I'll offer some solutions.

Task1 Complete the sentences with the words in the box.

After • all • areas • divided • finally • start •

1 I'll be talking to you today about the after-sales service plans we offer, I'll _____ by describing the various packages in detail. _____ I'll go on to show you some case studies. _____ I'll discuss how you can choose the best plan to meet your customers' needs.

2 I've _____ my talk into three main parts. First of _____, I'll tell you something about the history of our company. _____ that I'll describe how the company is structured and finally, I'll give you some details about our range of products and services.

3 I'd like to update you on what we've been working on over the last year, I'll focus on three main _____: first, our joint venture in Asia; second, the new plant in Charleston, And _____, our redevelopment project.

Task2 Complete the sentences with the prepositions in the box.

about • at • for • into • of • on •

- 1 Thank you _____ coming al this way.
- 2 I've divided my presentation _____ three parts.
- 3 First of all, I'll give you an overview _____ our financial situation.
- 4 First, we'll be looking _____ the company's sales in the last two quarters.
- 5 In the first part of my presentation I'll focus _____ the current project status.
- 6 Point one deals _____ APG's new regulations for Internet use.
- 7 Secondly, I'll talk _____ our investment in office technology.
- 8 After that I'll move on _____ the next point.

Unit 3

Presentation tips

Clear and simple structure

Remember that your audience will benefit most from a very clear and logical structure. Don't overload the audience and try to use simple language.

Your introduction

Some experts say this is the most important part of your presentation. In the first few minutes you can get your audience's attention, build rapport, and create a positive impression.

Topic and objects

Clearly say what the topic and objective (or purpose) of your talk is. Repeat the topic and objective at some later time.

Signposting

Let the audience know at all times what you want to do and how you want to do .it This method is common in the American business world - so use it!

Repeating new information

Always repeat new details. This helps your audience to remember them and ensures optimal flow of information.

Summarizing points

At the end of each section summarize the main facts to make sure everybody is following.

Interaction with the audience

American audiences expect direct interaction. So treat them as individuals; show them that you care about their individual needs.

Presenter's role

The presenter is often considered as important as his or her topic, and the presenter's role is to make sure the presentation- even one on a dry topic – is interesting and entertaining. To achieve this goal American presenters often use their

personalities more and tend to be more enthusiastic than people from many other parts of the world.

Task 1 ‘Signposting’ phrases are used to help guide the audience through a presentation. Complete this box useful phrases with phrases which are given below:

So, let me give you a brief overview...

This now leads us to my next point.

Let’s move on to the next point.

Let’s now turn to the next issue.

So much for...

So that’s the background...

As I said earlier...

Let me now come back to what I said earlier.

Saying what is coming

1. In this part of my presentation, I’d like to tell you about... _____

2. _____

Moving in the next point

This leads directly to the next part of my talk.

3. _____

4. _____

5. _____

Indicating the end of a section

This brings me to the end of my second point.

6. _____

7. _____

Referring back

As I mentioned before, ...

8. _____

Let’s go back to what we were discussing earlier.

9. _____

Summarizing a point

I’d like to swim up the main points.

Let me briefly summarize what I’ve said for far.

Task 2. Complete the sentences with words from the box.

back | covered | discussing | inform | leads | main points | sum up | wanted

1. Let me know summarize the _____.

2. We will be _____ our sales targets today.

3. In my talk I’ll _____ you about new marketing techniques.

4. Before I move on, let me just _____ what I’ve said so far.

5. I think we have _____ everything for today.

6. OK, that’s all I _____ to say about time management.

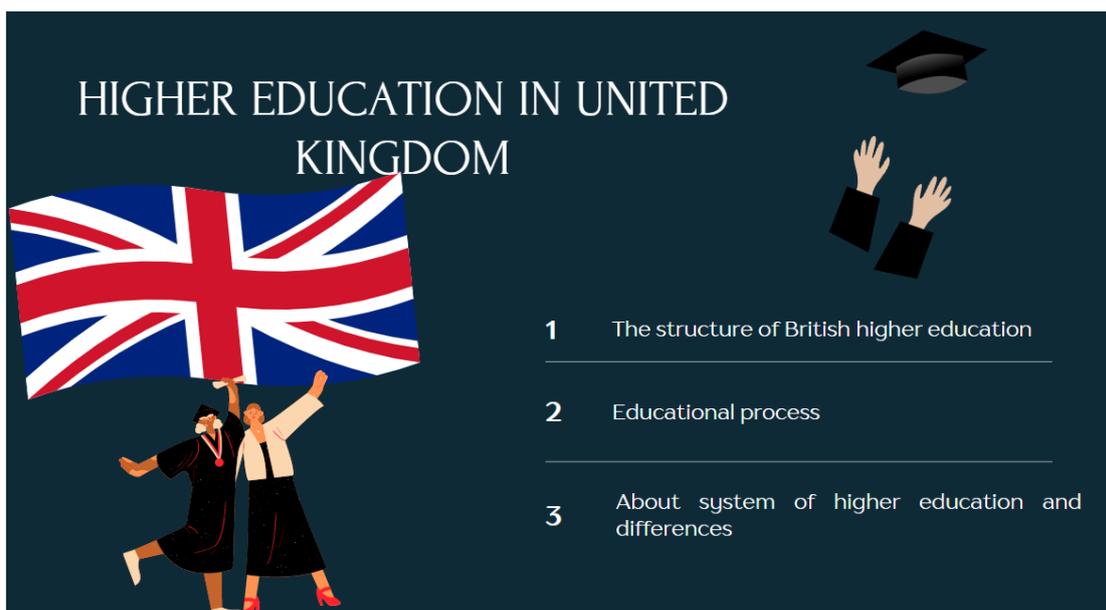
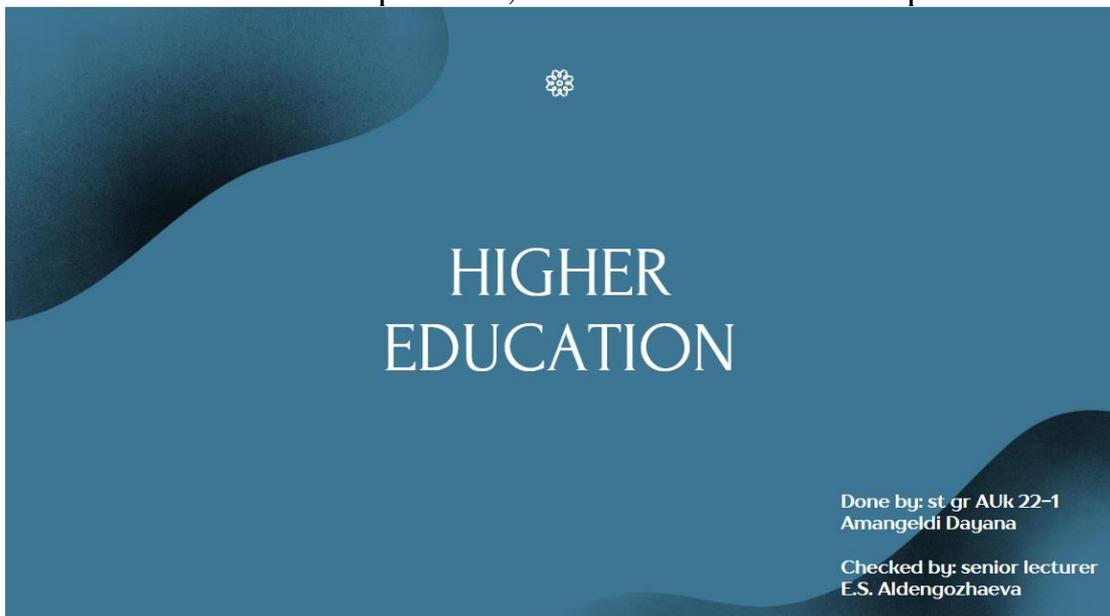
7. This _____ directly to my second point.

8. Let’s go _____ to what I said at the beginning of my presentation.

Unit 4

Checklist for Visuals

- 1 Prepare each visual carefully and separately.
- 2 Check whether the visual really shows what you are saying.
- 3 Make sure your audience can read the visual.
- 4 Find effective headlines.
- 5 Keep design and content simple.
- 6 Use bullet charts for text.
- 7 Reduce text to a minimum.
- 8 Always prepare audience for visuals.
- 9 Present information clearly and logically.
- 10 When presenting text on overheads or PowerPoint slides, it is a good idea to use a maximum of six lines per slide, a maximum of six words per line.





The structure of British higher education includes:

- University colleges and classical universities, where teachers focus on conducting research activities.
- Polytechnic institutes, as well as colleges of higher education, where high-quality training of specialists in applied specializations is conducted.

The educational process consists of three stages, namely:

- Bachelor's degree program – duration of study is 3 years
- Master's degree program – the duration of study varies from 1 year to two years
- Doctoral studies – the duration of study ranges from 2 to 3 years.



Higher education system

- The academic year is divided into three terms
- Terminal examinations are held at the end of autumn, spring and summer terms
- The grading system can have the format of points or percentages
- Assessment of the student's results and level of knowledge



Differences between universities in Britain and universities in other countries



- British universities differ from others in their isolation and independence.
- British universities have a very developed system of student unions and societies.
- Teachers in British universities communicate with students simply, on equal terms.
- Teachers are especially tough on plagiarism.



British higher education is one of the best in the world! It is not only appreciated in all countries, but also useful for general development, for the formation of independence, time management skills, responsibility and other qualities.



THANK YOU FOR
YOUR ATTENTION !

Checklist

for conclusions

1. Signal the end of your talk.
2. Summarize the key points.
3. Highlight one important point.
4. Explain the significance.
5. Make your final statement.

Task 1 Complete the sentences with words from the box.

back | covered | discussing | inform | leads | main points | sum up | wanted

Let me know summarize the _____.

We will be _____ our sales targets today.

In my talk I'll _____ you about new marketing techniques.

Before I move on, let me just _____ what I've said so far.

I think we have _____ everything for today.

OK, that's all I _____ to say about time management.

This _____ directly to my second point.

Let's go _____ to what I said at the beginning of my presentation.

Unit 5

Conclusion

Indicating the end of your talk

I'm now approaching /nearing the end of my presentation.

Well, this brings me to the end of my presentation.

That covers just about everything I wanted to say about.

OK, I think that's everything I wanted to say about.

As a final point, I'd like to ..

Finally. I'd like to highlight one key issue.

Summarizing points

Before I stop, let me go over the key issues again.

just to summarize the main points of my talk .

I'd like to run through my main points again.

To conclude / In conclusion, I'd like to ..

To sum up (then), we ...

Making recommendations

We'd suggest .

We therefore (strongly) recommend that

In my opinion, we should-

Based on the figures we have, I'm quite certain that ..

Inviting questions

Are there any questions?

We just have time for a few questions.

And now I'll be happy to answer any questions you

may have.

Quoting a well-known person

As - once said,

To quote a well-known businessman, ...

To put it in the words of -

Referring back to the beginning

Remember what I said at the beginning of my talk today?

Let me just go back to the story I told you earlier

Remember,

DEALING WITH QUESTION

Clarifying questions

I'm afraid I didn't (quite) catch that.

I'm sorry, could you repeat your question, please?

So, if I understood you correctly, you would like to know whether

So, in other words you would like to know whether

If I could just rephrase your question. You'd like to know...

Does that answer your question?

Avoiding giving an answer

If you don't mind, could we discuss that on another occasion?

I'm afraid that's not really what we're discussing today.

Well, actually I'd prefer not to discuss that today.

Admitting you don't know

Sorry, I don't know that off the top of my head.

I'm afraid I'm not in a position to answer that question at the moment.

I'm afraid I don't know the answer to your question, but I'll try to find out for you.

Sorry, that's not my field, But I'm sure Peter Bott from Sales could answer your question.

Postponing questions

If you don't mind, I'll deal with/come back to this point later in my presentation,

Can we get back to this point a bit later?

I'd prefer to answer your question in the course of my presentation.

Would you mind waiting until the question and answer session at the end?

Perhaps we could go over this after the presentation.

Summarizing after interruptions

Before we go on, let me briefly summarize the points

we've discussed.

So, now I'd like to return to what we were discussing earlier.

Part 2

Unit 1

Task 1 Complete the dots with the verbs *to be*, *to have* in suitable tense:

1. Nursultan ... the capital of Kazakhstan. 2. There ... many universities in Almaty. 3. Our University ... one of the best technological universities in our country.

4. It... founded in 1975. 7. There ... laboratories, workshops and libraries in our university. 8. Every faculty ... its own computer center. 9. Our library ... a great number of books and magazines in all branches of science and technology. 10. Last year we ... at school, next year we ... the second-year students.

Task 2 Choose right form of the Verbs in brackets:

1. Entrance exams (held, are held) in summer. 2. Basic engineering subjects (studied, are studied) in the first and second years. 3. Highly qualified specialists (trained, are trained) at higher schools. 4. More than a million students (enrolled, were enrolled) to the institutes and universities of this country last summer. 5. The training of specialists (will be improved, will improve) as a result of restructuring in the next few years.

Task 3 Past Simple 'Be' Positive and Negative

1 It. (be) cold yesterday. [.] ...

2 She. (be) hungry. [.] ...

3 We. (be) late for the meeting. [.] ...

4 I. (be) tired last night. [.] ...

5 The exam. (be) difficult. [.] ...

6 They. (be) in Berlin. [.] ...

7 You. (be) in the library when I called you. [.] ...

8 The holiday. (be) fun. [.]

Task 4 Read and translate the text:

Universities in Great Britain

Students from any part of Great Britain and Northern Ireland can be admitted to any of the Universities.

Universities operate under royal charters and have complete academic freedom: they decide which students to admit, what, and how to teach, which degrees to award and on what conditions. All universities receive grants recommended by the University Grants Committee. There are thirty-six universities in England and Wales, eight in Scotland and two in Northern Ireland.

The University of London is by far the largest conventional university. It has some 40,500 full-time students. The Universities of Wales, Cambridge, Leeds and Manchester each has over 10,000 full-time students in the academic year.

Most undergraduates in Great Britain are taking courses of three years duration.

Universities are centers of research as well as teaching. Post-graduate students in Great Britain are doing research for higher degrees, usually doctorates.

Applications from prospective students for admission to first-degree courses at universities are submitted through the Universities' Central Council on Admission (UCCA). When completing an application, a candidate can list up to five universities or colleges, in order of preference. UCCA sends a copy to each of the universities, or colleges, the applicant has named. Each university selects its own students; the UCCA system does not interfere with this autonomy. Applicants for post-graduate studies apply directly to the university.

The college system at Oxford and Cambridge is unlike that of any other university, whether in Britain or America.

The university is like a federation of colleges. The university arranges courses, the lectures, and the examinations, and awards the degrees. No lectures are compulsory, and tutors usually advise their students which lectures they should go to. Tutors are responsible for students' progress.

Each college has its own completely separate living quarters, its own dining hall and its own chapel. Cambridge has three women's colleges, Oxford — five. Today many of the men's colleges are coeducational.

At most universities an honours degree is taken in one main subject and one secondary subject. A general degree is taken in a variety of subjects but carries less weight than an honours degree. If students pass their final exam, they get a degree marked First, Second or Third Class. Oxford offers a Fourth Class. Few students get First Class degrees, so these are a valuable qualification for a job. Students with any class of degree become Bachelor of Arts or Science. If they want to go a step further and become Master of Arts or Science, they have to write an original paper, or thesis, on some subject. Graduates who get degrees in engineering, technology, medicine, or maths are almost certain of getting a good job. But the majority of undergraduates still prefer arts subjects or the social sciences.

Vocabulary:

- 1 Royal charter – королевская хартия (закон) – Корольдік жарғы
- 2 full-time student – студент дневного отделения – күндізгі бөлім
- 3 to submit – представлять на рассмотрение – ұсыну
- 4 tutor – руководитель группы студентов – топ жетекшісі
- 5 post-graduate studies – аспирантура – аспирантура
- 6 honours degree – диплом с отличием – үздік дәреже
- 7 compulsory – обязательный – міндетті
- 8 undergraduates – магистранты – магистрант
- 9 receive grants – получают гранты – грант алу
- 10 be admitted – быть принятым – қабылдану

Task 5 Answer the questions:

- 1 Why do universities operate under royal charters?
- 2 What grants do all universities receive?
- 3 How many universities are there in Great Britain?
- 4 How many full-time students do the Universities of Wales have in the academic year?
- 5 What are doing most undergraduates in Great Britain?
- 6 What can you say about the Universities' Central Council on Admission (UCCA)?
- 7 What is the difference of the college system at Oxford and Cambridge?
- 8 Can you give information about degrees at universities in Great Britain?

Task 6 Give mini conclusion about the text:

Unit 2

Task 1 Rewrite the sentences from active into passive:

A 1. He is writing a letter at the moment. 2. John was preparing report all day yesterday. 3. We are learning grammar now. 4. At present mankind is making considerable investments to eliminate air pollution. 5. Today the changes in the global climate and water balance are bringing about serious changes in the environment. 6. Many scientists are constantly carrying out experimental work to solve the problem of environment protection. 7. The company is making plans for the future.

B Complete the sentences using the correct form of the verb.

1 I tried to contact Tom.

I called his office, but I was told (tell) that he was in a meeting.

2 Amy retired from her job recently.

She _____ (give) a present by her colleagues.

3 I didn't know there was a meeting yesterday.

I _____ (not / tell) about it.

4 Sarah's salary is very low.

I don't understand why she _____ (pay) so little.

5 You will need to use this machine.

Have you _____ (show) how it works?

6 I had an interview for a job recently. It wasn't easy.

I _____ (ask) some questions that were very hard for me to answer.

7 They didn't tell us much about the project.

We _____ (not / give) enough information.

8 I was surprised to get the job I applied for.

I didn't expect _____ (off er) it.

Task 2 Open the brackets:

When John was a child, he had two drawing books. One of them was (large) than the other. His elder brother bought the (large) one for him. John liked it (well) because the drawings in it were (large) and simple. He drew something every day. Each new day his drawing was (good) than the one he had made the day before.

The last page was much (good) than the first one.

After graduating from the institute Sara went to Siberia to a small industrial town. It was (difficult) for her to begin her work as an engineer than she thought that it would be. She moved to (important) city than the first one. She was not (successful) there than before, however, and sometimes she was even (unhappy). However, she was (happy) about one thing, she was becoming a (useful) specialist.

New York is the (large) city in the US. Perhaps, with all its suburbs it is the (large) city in the world. It is one of the (important) industrial cities in the country. Some of the (old) and historic buildings are there. Some of the buildings in New York City are the (high) buildings in the whole world. New York City is not only the (large) city in the US; it is also the (important) industrial center. Perhaps, the (expensive) office buildings in the world are there. It has the (great) number of factories, the (large) banks and post offices. It sends out many letters and receives the (heavy) mail bags. It is truly the (important) business city.

Task 3 Read and translate the text:

Ecological Problems of Big Cities

Nowadays ecological problems have become one of the most important and the most urgent ones for the mankind. The pollution of the environment is one of the factors which determines the health of population. The pollution of air, water and soil results in the growth of general and occupational diseases, in the decrease of the work efficiency and other factors. That is why people are worried more and more about the environment.

Today industrial enterprises pollute the atmosphere with million tons of dust and other harmful emissions. Many cities suffer from smog. Automobile transport is one of the main sources of atmospheric pollution. The number of cars and lorries is growing all the time. Traffic in cities is getting worse and worse and it results in an increase of air pollution. In this respect Almaty is one of the most polluted cities in Kazakhstan.

There are over 150 super cities in the world with population from one to 15 million and more. Tokyo, New York, London, Mexico City, Rio de Janeiro and Moscow are just a few of the cities which have become super cities.

People in the super cities suffer from polluted environment: bad water, bad air and noise. A new term, urban climate, is used now for such cities. It means high temperature, oppressive atmosphere and intensive smog.

Some experts consider that it is practically impossible to protect the big cities from pollution. The World Health Organization (WHO) studied air pollution around the world for over eight years. It measured two things: the level of sulphur dioxide

(SO₂) in the air and the level of smoke. Sulphur dioxide and smoke pollute water and have serious effect on forest, buildings and health of people.

In the WHO report it is shown that the cities with the most considerable level of CO₂ in the air are Milan, Teheran, Prague, Santiago and Sao Paulo.

Vocabulary:

- 1 urgent – срочный – шұғыл
- 2 occupational diseases – профессиональных заболелания – кәсіптік ауру
- 3 in the decrease of the work efficiency – в снижении работоспособности – жұмыс тиімділігінің төмендеуінде
- 4 enterprises – предприятия – кәсіп орын
- 5 harmful emissions – вредных выбросов – зиянды шығарындылар
- 6 atmospheric pollution – загрязнение атмосферы – атмосфераның ластануы
- 7 urban climate – городской климат – қалалық климат
- 8 oppressive atmosphere – гнетущая атмосфера – қысымды атмосфера

Task 4 Answer the questions:

- 1 Why have ecological problems become one of the most urgent ones for the mankind?
- 2 How is the atmosphere polluted today?
- 3 What can you say about supercities?
- 4 What do you know about the World Health Organization (WHO)?

Task 5 Are the sentences True or False? Give True sentences:

- 1 The pollution of the environment is one of the factors which determines the health of population.
- 2 People are worried more and more about their future.
- 3 Industrial enterprises pollute the atmosphere with million tons of dust and other harmful emissions.
- 4 Traffic in cities is getting better and better and it results in an increase of air pollution.
- 5 People in the super cities enjoy with polluted environment.
- 6 Experts consider that it is practically impossible to protect the big cities from pollution.
- 7 The World Health Organization (WHO) studied air pollution around the world for over eight years.
- 8 Sulphur dioxide and smoke clean water and have serious effect on forest, buildings and health of people.

Task 6 Tell us about the ecological problems of your hometown:

Unit 3

Task1 Determine the functions of *to have*:

1. Electricity has many useful properties: it is clean and generates no by-products.
2. It has many important applications in industry as well as in our houses.

3. The latest laser devices have found application in medicine. 4. Electricity has provided mankind with the most efficient source of energy. 5. No other source of energy

has been so widely used as electricity. 6. We have many various electric devices in our houses. 7. Our lives have been completely transformed with the appearance of electricity. 8. The generator replaced batteries that had been used before. 9. The consumption of electricity has doubled every ten years.

Task 2

A Put the verb into the correct form, present or past, active or passive:

1 a Two hundred people are employed (employ) by the company.

b The company employs (employ) 200 people.

2 a Water _____ (cover) most of the earth's surface.

b How much of the earth's surface _____ (cover) by water?

3 a While I was on holiday, my camera _____ (steal) from my hotel room.

b While I was on holiday, my camera _____ (disappear) from my hotel room.

4 a Robert's parents _____ (die) when he was very young.

b Robert and his sister _____ (bring up) by their grandparents.

5 a The boat hit a rock and _____ (sink) quickly.

b Fortunately everybody _____ (rescue).

6 a Bill _____ (fire) from his job. He wasn't very good at it.

b Sue _____ (resign) from her job because she didn't enjoy it anymore.

7 a It can be noisy living here, but it _____ (not / bother) me.

b It can be noisy living here, but I _____ (not / bother) by it.

8 a Maria had an accident. She _____ (knock) off her bike.

b Maria had an accident. She _____ (fall) off her bike.

9 a I haven't seen these flowers before. What _____ (they / call)?

b I haven't seen these flowers before. What _____ (you / call) them?

B Rewrite the sentences from active into passive:

The students have done their homework very well. 2. Barbara has left his notebook at home. 3. We have told her about a lecture. 4. The laboratory assistant had prepared the experiment by 2 o'clock. 5. Paula had finished her test when we came. 6. The teacher will have corrected our dictation by the end of the week. 7. They have not made any mistakes.

Task 3 Read and translate the text:

Solar Light by Night

Most people living in towns consider it a usual thing that streets are lit at night. But streetlights need a power supply therefore distant areas with no source of electricity remain in darkness until the sun comes up again.

With new appliances now offered by several British firms, many distant places could be lit with solar-powered streetlights. It may seem strange that the lamps can

use the power of the sun which shines by day when the lamps are needed at night, but they work by using energy accumulated during the day from a solar panel. The solar panel produces electricity which charges a battery. When the sun goes down, the battery power is then used for lighting. Each lamp has its own panel so the system can be used for one individual light or a number of them.

In the south of Saudi Arabia, a motorway tunnel mile from any power supply is lit day and night by solar-powered devices. The solar panels provide power during the day and charge batteries which accumulate enough power to light the tunnel at night. The generation of electricity by batteries is still expensive but the advantage of sun-powered lamps is that they can bring light to areas distant from any other power supply.

There is one more advantage of solar power: not only it is unlimited, but also its use does not pollute the environment. That is why it is very important to develop devices which make it possible to transform solar power into mechanical or electric forms of power.

Vocabulary:

- 1 streetlight – уличный фонарь – көше жарығы
- 2 power supply – источник питания – қуат көзі
- 3 source of electricity – источник электроэнергии – электр энергиясының көзі
- 4 new appliances – новых прибора – жаңа құрылғы
- 5 solar-powered – на солнечной энергии – күн энергиясымен жұмыс істейтін
- 6 accumulated – накоплено – жинақталған
- 7 solar panel – солнечная панель – күн панелі
- 8 a motorway tunnel mile – миль туннеля автомагистрали – автожол туннелі
- 9 to transform – трансформировать – түрлендіру
- 10 to charge a battery – зарядить аккумулятор – батареяны қуаттау

Task 4 Answer the questions:

- 1 What is Solar light?
- 2 Why do distant areas with no source of electricity remain in darkness until the sun comes up again?
- 3 What is the solar panel?
- 4 What is the functions of solar panel?
- 5 What uses of solar-powered devices in the south of Saudi Arabia?
- 6 What advantages of Solar light do you know?

Task 5 Are the sentences True or False? Give True sentences:

- 1 People living in villages consider it a usual thing that streets are lit at night.
- 2 Many distant places could be lit with solar-powered streetlights.
- 3 The solar panel produces electricity which charges a battery.
- 4 Each lamp has its own battery so the system can be used for one individual light.

5 In the north of Saudi Arabia, a motorway tunnel mile from any power supply is lit day and night by solar-powered devices.

6 The generation of electricity by batteries is cheap.

7 There is one more disadvantage of solar power: it is limited, but also its use pollutes the environment.

8 It is very important to develop devices which make it possible to transform solar power into mechanical.

Task 6 Say about the use of Solar light in your country:

Unit 4

Task 1 Open the brackets paying attention to sequence of tenses:

1. Sam says that he (want) to be a software designer. 2. Karl thinks that he (see) a new device already. 3. Peter knows that he (lose) his mobile yesterday. 4. John says that he (help) with work next week. 5. Ann said that she (know) him. 6. Abby understood that the speaker (be) in Dubai recently. 7. He asked what they (want) to do. 8. They asked when we (come) to see him. 9. She asked if I (can) stay with them. 10. The lecturer wanted to know whether I (be) good at physics. 11. My groupmate wanted to know whether I (go) to the cinema next Saturday. 12. She asked which book he (read) at that moment. 13 The student was told that he (may) test the device in the afternoon. 14. It was known that the head of our laboratory (be) a graduate of AUPET. 15. Our professor informed us that he (give) the following lecture on quantum mechanics on Wednesday. 16. At the meeting it was said that our lecturer (work) at a new program of laboratory work. 17. The teacher told us that the term «engineering» (have) many Russian equivalents. 18. The chief engineer believed that we (work) at that problem for a month the following summer.

Task 2 Complete the sentences:

e.g.: I think I know the answer.

I thought... – I thought I knew the answer.

1 He realizes he will be alone.

He realized...

2 We hope she will be waiting for us at six o'clock.

We hoped...

3 He proves he is the best.

He proved...

4 She imagines she can do that.

She imagined...

5 We understand we need more money.

We understood...

Task 2 Complete the sentences with these Verbs: *connect, transmit, communicate*:

1. A small radio receiver called a radiopager makes it possible for people to ... with each other wherever they are.

2. Data ... services, known as teletext... text and graphics over a long distance as part of the television video signal.

3. In telecommunication the information can be directed between ... and receivers by cables of various kinds.

4. The lines which ... telephones within a building are the simplest type of... line.

5. Mobile phone systems normally do not... directly with other mobile phones. They send messages to the control base station.

6. How long will the ... of the new telephone take?

7. You can now ... your computer to computers all over the world by means of the Internet

Task 3 Read and translate the text:

What is Robotics?

Robotics is the intersection of science, engineering and technology that produces machines, called robots, that substitute for (or replicate) human actions. Pop culture has always been fascinated with robots. R2-D2. Optimus Prime. WALL-E. These over-exaggerated, humanoid concepts of robots usually seem like a caricature of the real thing...or are they more forward thinking than we realize? Robots are gaining intellectual and mechanical capabilities that don't put the possibility of a R2-D2-like machine out of reach in the future.

A robot is the product of the robotics field, where programmable machines are built that can assist humans or mimic human actions. Robots were originally built to handle monotonous tasks (like building cars on an assembly line) but have since expanded well beyond their initial uses to perform tasks like fighting fires, cleaning homes and assisting with incredibly intricate surgeries. Each robot has a differing level of autonomy, ranging from human-controlled bots that carry out tasks that a human has full control over to fully autonomous bots that perform tasks without any external influences.

Vocabulary:

1 intersection of science – пересечение науки – ғылым тоғысы

2 substitute – замена – алмастырушы

3 over-exaggerated – преувеличение – асыра сілтеу

4 a caricature of the real thing – карикатура на реальную вещь – нақты нәрсенің карикатурасы

5 to gain – получить – алу

6 programmable machines – программируемых машин – бағдарламаланатын машина

7 assist – помочь – көмектесу

8 to handle – для обработки – өңдеуге

9 expanded – расширенный – кеңейтілген

10 initial uses – первых применении – бастапқы қолдану

Task 4 Answer the questions:

- 1 What is Robotics?
- 2 What is WALL-E?
- 3 What capabilities are Robots gaining?
- 4 What is the Robot?
- 5 Why were Robots built?
- 6 What can robots perform?
- 7 What levels has each robot?

Task 5 Are the sentences True or False? Give True sentences:

- 1 Robotics is the intersection of science, engineering and technology.
- 2 Robots, that substitute for human feelings.
- 3 Pop music has always been fascinated with robots.
- 4 Robots are gaining intellectual and mechanical capabilities.
- 5 Programmable machines are built that can assist humans or mimic human actions.
- 6 Robots were originally built to handle monotonous tasks.

Task 6 Would you like to have a robot? Why?

Unit 5

Task 1 Find attribute in the sentences and translate them:

A 1. Materials new computers depend on must be of the best quality. 2. The number of components supercomputers consist of is great. 3. The plants computer components are produced at must be super clean. 4. The laboratory the Curies worked in was very primitive. 5. The space laboratory the Russian cosmonauts live and work in is in the orbit for a long time. 6. Satellites our communication goes through are sent into space regularly. 7. The problem Bell was interested in was not an easy one and it took several years to solve it. 8. The problem this article deals with relates to the subject we study. 9. The changes and movements of the air we are surrounded with influence our lives. 10. This is an article that deals with some environmental problems we face.

B Complete the sentences for each situation:

Use the word in brackets + **-ing** or **-ed**:

- 1 The movie wasn't as good as we had expected. (disappoint...)
 - a The movie was disappointing.
 - b We were disappointed with the movie.
- 2 Donna teaches young children. It's a very hard job, but she enjoys it. (exhaust...)
 - a She enjoys her job, but it's _____ often.
 - b At the end of a day's work, she is often _____.
- 3 It's been raining all day. I hate this weather. (depress...)

- a This weather is_____.
- b This weather makes me_____.
- c It's silly to get_____ because of the weather.
- 4 Clare is going to Mexico next month. She's never been there before. (excit...)
- a It will be an_____ experience for her.
- b Going to new places is always_____.
- c She is really_____ about going to Mexico.

Task 2 Complete each sentence with *few*, *a few*:

1. ... people know that the first programmer in the world was Lord Byron's daughter. 2. In the past astronomers spent all their lives to make ... hundred thousand calculations. 3. A calculator makes these calculations in ... seconds. 4. In the next ... years a new generation computer will be developed. 5. ... people read that the first electric light illuminated the laboratory of Vasily Petrov, a St. Petersburg physicist, in 1862.

Task 3 Read and translate the text:

The computer

1)The parts of a computer you can touch, such as the monitor or the Central Processing Unit (CPU) are hardware. All hardware except the CPU and the working memory are called peripherals. Computer programs are software The operating system (OS) is software that controls the hardware. Most computers run the Microsoft Windows OS. MacOS and Linux are other operating systems.

2)The CPU controls how fast the computer processes data, or information. We measure its speed in megahertz (MHz) or gigahertz (GHz). The higher the speed of the CPU, the faster the computer will run. You can type letters and play computer games with a 500 MHz CPU. Watching movies on the Internet needs a faster CPU and a modem.

3)We measure the Random Access Memory (RAM) of the computer in megabytes (MB). RAM controls the performance of the computer when it is working and moves data to and from the CPU. Programs with a lot of graphics need a large RAM to run well. The hard disk stores data and software programs. We measure the size of the hard disk in gigabytes (GB).

4)Computer technology changes fast, but a desktop PC (Personal Computer) usually has a tower, a separate monitor, a keyboard, and a mouse. The CPU, modem, CD-ROM, and floppy disk drives are usually inside the tower. A notebook is a portable computer with all these components inside one small unit. Notebooks have a screen, not a monitor, and are usually more expensive than desktops with similar specifications.

Vocabulary:

- 1 Central Processing Unit – центральный процессор – орталық өңдеу блогы
- 2 hardware – оборудование – аппараттық құрал
- 3 peripherals – периферийных устройства – перифериялық құрал
- 4 software – программное обеспечение – программалық қамтамасыз ету
- 5 operating system – операционная система – операциялық жүйе
- 6 processes data – обрабатывает данные – деректерді өңдейді
- 7 Random Access Memory – оперативная память – жылдам қол жеткізу жады
- 8 stores data – хранить данные – деректерді сақтайды
- 9 a desktop – рабочий стол – жұмыс үстелі
- 10 a portable computer – портативный компьютер – портативті компьютер
- 11 specifications – спецификаций – техникалық сипаттамалар

Task 4 Read the text again and match the headings(a-d) with the paragraphs (1-4):

- | | |
|---------------------|-------------------------|
| a Memory | b Speed |
| c PCs and Notebooks | d Hardware and Software |

Task 5 Are the sentences True or False? Give True sentences:

- 1 The Central Processing Unit (CPU) are software.
- 2 The working memory are called peripherals.
- 3 Computer programs are hardware.
- 4 MacOS and Linux are other operating systems.
- 5 The higher the speed of the CPU, the faster the computer will run.
- 6 We measure the Random Access Memory (RAM) of the computer in megahertz.
- 7 The hard disk **stores** data and software programs.
- 8 We measure the size of the hard disk in gigahertz.
- 9 Notebooks have a screen, not a monitor.
- 10 Desktops are usually more expensive than notebooks.

Task 6 Match the highlighted words and phrases in the text with the definitions:

- 1 parts _____
- 2 pictures and images _____
- 3 a way of doing something _____
- 4 reads and uses data _____
- 5 measurements _____
- 6 use a computer program _____
- 7 keeps data in the memory _____
- 8 how well a computer does something _____

Unit 6

Task 1

A Write **must / mustn't / had to / don't need to**.

- 1 You **don't need to** go. You can stay here if you want.
- 2 It's a fantastic film. You **must** see it.
- 3 The restaurant won't be busy tonight. We _____ reserve a table.
- 4 I was very busy last week. I _____ work every evening.
- 5 I want to know what happened. You _____ tell me.
- 6 I don't want Sue to know what happened. You _____ tell her.
- 7 I _____ go now, or I'll be late for my appointment.
- 8 'Why were you so late?' 'I _____ wait half an hour for a bus.'
- 9 We _____ decide now. We can decide later.
- 10 It's Lisa's birthday next week. I _____ forget to buy her a present

B Find sentences with modal verb equivalents to *have to*, *to be to*:

1. Such metals as iron, cobalt, nickel and some alloys are much more magnetic than any other substances.
2. In the next few years Russian engineers are to complete the work on supercomputers.
3. The main aim of this article is to explain methods and means of space industrialization.
4. We are living in an electronic world.
5. A number of TV stations are to be linked up into a network.
6. Experiments for industrial production of materials in space are being carried out in many countries.
7. Weightlessness is created on Earth, but only for a few seconds.
8. The quality of these metal parts is to be very high.
9. It was found that the acceleration rate on board such vehicles was to be reduced to a minimum.

Task 2 Choose appropriate modal verb:

A 1. Do you live far? (Can, must) we meet here at 7 o'clock? — We certainly (may, can). — I'll see you later this evening, then. 2. Bill, would you help me? Sure, I'd be glad to help you. What (may, can) I do for you? 3. (Can, may) I take your pen? I've broken mine. 4. Do you know when Bob comes back from the University?

I am afraid he (can, may) be very late. He has an examination tomorrow. He (can, must) study for the examination. 5. Do you have a stamp (марка)? — No, I'm afraid I don't. You (may, must) go to the post office for this. 6. I'm very much interested in environment problems. I think we (must, may) learn to live in harmony with nature.

B Complete the sentences. Use **wouldn't** + a suitable verb.

- 1 I tried to warn him, but he *wouldn't listen* to me.
- 2 I asked Amanda what had happened, but she _____ me.
- 3 Paul was angry about what I'd said and he _____ to me for two weeks.
- 4 Martina insisted on carrying all her luggage. She _____ me help her.

Task 3 Read and translate the text:

Crystals

Crystals are known to be the most perfect creation of the inorganic world. They have long been attracting man's attention. The wide use of crystals explains the interest taken in them by physicists and chemists, mineralogists and biologists, metal experts and scientists in many other spheres.

We know crystal silicon batteries to collect solar energy out of space to feed various devices in man-made satellites. The wavelength of every radio station in the world is established by means of quartz crystals. The vast sphere of semiconductors is based on the crystals of germanium, silicon and others. These crystals are installed in tiny transistors and big electronic computers which perform millions of operations a second.

At present more than 1,000 artificial crystals are made in different parts of the world, these possessing properties unknown in nature. One of the latest achievements of Russian scientists was the production of artificial diamonds.

The creation of quantum generators ranks among the outstanding discoveries of recent times. A synthetic ruby, processed in the form of a rod, with a small addition of chromium oxide is used as the generator of light. Crystals are also used in quantum generators to guide the light beams.

Vocabulary:

- 1 inorganic world – неорганический мир – бей органикалық әлем
- 2 wavelength – длина волны – толқын ұзындығы
- 3 be established – быть установленным – белгіленеді
- 4 by means of quartz crystals – с помощью кварца – кварц арқылы
- 5 vast sphere – обширная сфера – кең шар
- 6 semiconductors – полупроводники – жартылай өткізгіштер
- 7 artificial crystals – искусственных кристаллов – жасанды кристалдар
- 8 to rank – место – орын
- 9 outstanding discoveries – выдающихся открытий – көрнекті жаңалық
- 10 synthetic ruby – синтетических рубинов – синтетикалық рубин
- 11 a rod – стержень – таяқ
- 12 chromium oxide – оксид хрома – хром оксиді
- 13 quantum generators – квантовых генераторов – кванттық генератор

Task 4 Answer the questions:

- 1 Where is the wide use of crystals?
- 2 What do we know about crystal silicon batteries?
- 3 Where can crystals be installed?
- 4 What was the latest achievements of Russian scientists?
- 5 What can you say about quantum generators?

Task 5 Are the sentences True or False? Give True sentences:

- 1 Crystals are known to be the most perfect creation of the organic

world.

2 crystal silicon batteries collect solar energy out of space to feed various devices in man-made satellites.

3 The wavelength of every radio station in the world is not established by means of quartz crystals.

4 Crystals are installed in huge transistors.

5 Big electronic computers can perform millions of operations a second.

6 One of the latest achievements of Kazakh scientists was the production of natural diamonds.

7 Crystals are also used in quantum generators to guide the light beams.

Task 5 Give mini-information about Crystals:

Unit 7

Task 1 Rewrite the subordinate clauses with participial phrases:

A 1. While Boris was driving home, he saw an accident. 2. After we had talked with Peter, we felt much better. 3. When John arrived at the station, he saw the train leave. 4. After he had left the house, he walked to the nearest metro station. 5. When I looked out of the window, I saw Mary coming. 6. As we finished our part of the work, we were free to go home. 7. As Ann had had no time to write us a letter, she sent a telegram.

B Make one sentence from two. Use **who/that/which**.

1 A girl was injured in the accident. She is now in hospital.

The girl who was injured in the accident is now in hospital.

2 A waiter served us. He was impolite and impatient.

The _____

3 A building was destroyed in the fire. It has now been rebuilt.

The _____

4 Some people were arrested. They have now been released.

The _____

5 A bus goes to the airport. It runs every half hour.

The _____

Task 2 Find sentences with independent participles and translate:

1. The first engines appeared in the 17th century and people began using them to operate factories, irrigate land, supply water to towns, etc. 2. The steam engine having been invented a self-propelled vehicle was built. 3. The supply of steam in the car lasting only 15 minutes, the vehicle had to stop every 100 yards to make more steam. 4. After the German engineer N. Otto had invented the gasoline engine, the application of this engine in motor cars began in many countries. 5. The cars at that time were very small, the engine being placed under the seat. 6. Motorists had to carry a supply of fuel, because there were no service stations. 7. Brakes having become more efficient, cars achieved greater reliability. 8. Cars with internal combustion engines having appeared, the automobile industry began to develop rapidly. 9. By

1960 the number of cars in the world had reached 60 million, no other industry having ever developed so quickly.

Task 3 Read and translate the text:

Electric cars in Kazakhstan

Electric vehicles will account for about 60% of the global car market by 2040 and 90% by 2050. These estimates exceed figures by the International Energy Agency, which predicts there will be about 330 million EVs in 2040. Production of electric cars is set to be launched in Kazakhstan starting from 2022, 1st Vice Minister of Industry and Infrastructure Development Kairbek Uskenbayev said, Kazinform correspondent reports. In order to develop the production of environmentally friendly vehicles, Kazakhstani automakers already commenced the production of electric vehicles, including YUTONG and Golden Dragon buses in the cities of Saran and Almaty and an electric car in Kostanay, Uskenbayev revealed at the session of the Kazakh Government.

He added that Kazakhstan is on track to make Hyundai Ioniq and KIA EV6 electric cars in 2022 and 2023, respectively. Uskenbayev also stressed that in order to support electric vehicle efforts and create necessary infrastructure 110 electric charging stations had been installed in the cities of Nur-Sultan, Almaty and Pavlodar. Kazakhstan continues to improve infrastructure for electric vehicles, as well as introducing measures to make the use of green cars more appealing.

In 2021, Kazakhstan plans to produce 1200 units of electric vehicles of various models, including buses, in 2022 this figure will be brought to 2000 units.

The machines will be supplied to the domestic market and exported abroad.

This year Kazakh President Kassym-Jomart Tokayev instructed the government to bring the share of renewable energy in the nation's total energy grid to 15% by 2030.

Vocabulary:

- 1 Electric vehicles – электромобили – электр көліктері
- 2 account for – счет – есеп
- 3 exceed – превышать – арттыру
- 4 international energy agency – международное энергетическое агентство – халықаралық энергетикалық агенттік
- 5 commenced the production – начато производство – өндірісті бастады
- 6 revealed at the session – выявленных на сессии – сессияда анықталды
- 7 on track to make – на пути ... – жасау жолында
- 8 charging stations – зарядных станций – зарядтау станциясы
- 9 cars more appealing – автомобилей привлекательнее – көлік тартымдырақ
- 10 will be supplied – будет поставлено – жеткізіледі
- 11 renewable energy – возобновляемая энергия – жаңартылатын энергия
- 12 energy grid – энергетическая сеть – энергия торабы

Task 4 Answer the questions:

- 1 How many percent will electric vehicles account for by 2040, 2050?
- 2 When is production of electric cars set to be launched in Kazakhstan?
- 3 What did 1st Vice Minister of Industry and Infrastructure Development Kairbek Uskenbayev say?
- 4 What will happen in 2022 and 2023 in Kazakhstan?
- 5 In which cities had 110 electric charging stations been installed?
- 6 What did Kazakh President Kassym-Jomart Tokayev instruct the government?

Task 5 Are the sentences True or False? Give True sentences:

- 1 Electric vehicle will account for about 60% of the global car market by 2040.
- 2 Production of electric cars is set to be launched Turkey starting from 2022.
- 3 Kazakhstan is on track to make Hyundai Ioniq and KIA EV6 electric cars.
- 4 Electric charging stations had been installed in the cities of Aktau and Almaty.
- 5 Kazakhstan continues to improve infrastructure for electric vehicles.
- 6 In 2030, Kazakhstan plans to produce 1200 units of electric vehicles.
- 7 The machines will be supplied to the domestic market and exported abroad.
- 8 The share of renewable energy in the nation's total energy grid to 15% by 2030.

Task 6 Would you like to have an electric car? Why?

Unit 8

Task 1 Translate the sentences paying attention to Gerunds:

- A**
- 1 Measuring temperature is necessary in many experiments.
 2. A is a machine for making and concentrating light waves into a very intense beam.
 3. For many centuries men were interested in obtaining new sources of energy.
 4. We insisted on the experiment being repeated.
 - 5 Penetrating space was very important for mankind.
 - 6 In testing the devices they found some serious faults.
 - 7 We know of Joffe's having contributed much to the research of transistors.
 - 8 Their aim is mastering the fundamentals of radio engineering

B Complete the sentences with the verbs in bracket:

(complain become sell play cheat eat lie tell work get leave write do wake have)

- 1 He admitted on the test.
- 2 You should avoid so much meat.
- 3 Please, consider your house if you need money.
- 4 I detest up when it's dark outside.

- 5 She denied the taxi without paying.
- 6 I enjoyed on the beach all day.
- 7 My sister fancies a pop star.
- 8 We finished our essays before noon.
- 9 The job in the supermarket involved at night.
- 10 I don't mind homework. Ha, ha.
- 11 My colleague kept all the time.
- 12 It was annoying. I took my umbrella.
- 13 I didn't want to risk wet.
- 14 She practised the piano all day.
- 15 I really appreciate your advice.
- 16 She couldn't resist us what she'd found out.

Task 2 Find the Gerunds in pairs of sentences:

1. Overcoming these difficulties is not so easy as it may seem. Overcoming these difficulties, the designers can increase the fuel efficiency.
2. Setting a problem the scientist makes the first step to its solution. Setting a problem is the first step to its solution.
3. Covering the distance between Tokyo and Moscow in less than two hours this superliner develops a speed five times above the speed of sound. Covering the distance between Tokyo and Moscow on board a superliner requires about two hours.
4. Putting the discovery into practice the engineers will solve a complicated technological task. Putting the discovery into practice sometimes requires more effort than making it.

Task 3 Read and translate the text:

What Is GPS?

The Global Positioning System (GPS) is a satellite-based navigation system made up of a network of 24 satellites. GPS was originally intended for military applications, but now the systems is available for civilian use. GPS works in any weather conditions, anywhere in the world, 24 hours a day.

GPS satellites circle the earth twice a day in a very precise orbit and transmit signal information to Earth. GPS receivers take this information and use triangulation to calculate the user's exact location. Essentially, the GPS receiver compares the time a signal was transmitted by a satellite with the time it was received. The time difference tells the GPS receiver how far away the satellite is. Now, with distance measurements from a few more satellites, the receiver can determine the user's position and display it on the unit's electronic map.

A GPS receiver must be locked on to the signal of at least three satellites to calculate a 2D position (latitude and longitude) and track movement. With four or more satellites in view, the receiver can determine the user's 3D position. Once the user's position has been determined, the GPS unit can calculate other information, such as speed, bearing, track, trip distance, distance to destination, sunrise and sunset time and more.

Today's GPS receivers are extremely accurate within an average of three to five meters thanks to their parallel multi-channel design.

The 24 satellites that make up the GPS space segment are orbiting the earth about 12,000 miles above us. They are constantly moving, making two complete orbits in less than 24 hours. These satellites are travelling at speeds of roughly 7,000 miles an hour.

GPS satellites are powered by solar energy. They have backup batteries onboard to keep them running in the event of a solar eclipse when there's no solar power. Small rocket boosters on each satellite keep them flying in the correct path.

Vocabulary:

- 1 a satellite-based – спутниковый – спутниктік негізде
- 2 navigation system – навигационная система – навигациялық жүйе
- 3 intended – предназначено – мақсатты
- 4 civilian use – гражданское использование – азаматтық пайдалану
- 5 precise orbit – точная орбита – дәл орбита
- 6 exact location – точное местоположение – нақты орналасқан
- 7 locked on – заблокировано – құлыптаулы
- 8 track movement – треков движения – жол қозғалысы
- 9 space segment – космический сегмент – ғарыш сегменті
- 10 rocket boosters – ракетных ускорителей – зымыран күшейткіш
- 11 a solar eclipse – солнечное затмение – күн тұтылуы

Task 4 Answer the questions:

- 1 What is GPS?
- 2 How does GPS work?
- 3 How does GPS satellites circle the earth?
- 4 What are the functions of GPS receivers?
- 5 What are the 2D, 3D positions?
- 6 How long do the satellites circle the earth?
- 7 How are GPS satellites powered?

Task 5 Are the sentences True or False? Give True sentences:

- 1 GPS was originally intended for military applications.
- 2 Now the systems are not available for civilian use.
- 3 GPS works in any weather conditions, anywhere in the world.
- 4 Satellites circle the earth once a day in a very precise orbit.
- 5 The time difference tells the GPS receiver how far away the satellite is.
- 6 With four or more satellites in view, the receiver cannot determine the user's 3D position.
- 7 The 24 satellites that make up the GPS space segment are orbiting the earth about 120,000 miles above us.
- 8 GPS satellites are powered by solar energy.
- 9 Small rocket boosters on each satellite keep them flying in the correct path.

10 These satellites are travelling at speeds of roughly 7,000 miles an hour.

Task 5

Unit 9

Task 1

Complete the sentences:

A 1 I'd be very scared if somebody pointed (somebody / point) a gun at me.

2 I can't afford to buy a car. If _____ (I / buy) a car, I'd have to borrow the money.

3 If you had a party, who _____ (you / invite)?

4 Don't lend James your car. If _____ (he / ask) me, I wouldn't lend him mine.

5 I don't think Gary and Emma will get married. _____ (I / be) amazed if they did.

6 If _____ (somebody / give) me \$20,000, _____ (I / have) a long holiday.

7 _____ (you / be) nervous if _____ (you / meet) a famous person?

8 What _____ (you / do) if _____ (you / be) in a lift and (it / stop) between floors?

B Write a sentence with **if ...** for each situation:

1 We don't see you very often because you live so far away.

If you didn't live so far away, we'd see you more often.

2 I like these shoes but they're too expensive, so I'm not going to buy them.

I _____ them if _____ so _____

3 We'd like to go on holiday, but we can't afford it.

We _____ if _____

4 It would be nice to have lunch outside but it's raining, so we can't.

We _____

I don't want his advice, and that's why I'm not going to ask for it.

If _____

Task 2 Write sentences beginning **If ...** :

1 We're not going to take the 10.30 train. (we / arrive too early)

If we took the 10.30 train, we'd arrive too early.

2 We're not going to stay at a hotel. (it / cost too much)

If we _____, it _____.

3 There's no point in telling you what happened. (you / not / believe)

If I _____

4 Sally has no plans to leave her job. (it / hard to find another one)

If she _____

5 Kevin is not going to apply for the job. (he / not / get it).

Task 3 Read and translate the text:

Voyage to the Bottom of the Sea

There is an American project of one-person submarine, which will «fly» to the bottom on inverted wings rather than simply sinking under its own weight as the bathyscaphes did. This design is more like an airplane than a balloon. It could one day make exploring the ocean depth as easy as flying a plane is today.

The most difficult problem is to find a material that is also light enough to allow the craft to float back to the surface if there is a loss of power or some other emergency. Alumina, a hard ceramic, was chosen for the vessel.

The pilot's capsule is about a meter in diameter, 5 centimeters thick and about 2 meters long. It is capped at one end with a ceramic hemisphere and at the other with a glass viewing dome. The rest of the craft, including the wings on either side and the casing at the rear for the motors, are made of a lightweight composite material.

In addition to the pilot, the pressure vessel houses the controls and instrument panel, the life-support system and a 24-volt power supply. The pilot effectively operates the craft by radio control.

The batteries feed a pair of electric motors that can drive the craft at up to 14 knots (25 kilometers per hour). The craft could dive vertically but this would be uncomfortable for the pilot who lies face downwards in the cylindrical chamber. So, it descends at an angle of up to 45°. «Deep Flight» is designed to be as streamlined as possible. This means making the submarine's cross section as small as possible and providing as little equipment as possible on the hull.

At a cruising speed of 10 knots «Deep Flight» will descend at a rate of 200 meters per minute and reach 11,000 meters in about an hour in the Mariana Trench, the deepest site on Earth. The weight of the craft is 2.5 tones, which is about the same as a large car. This will allow it to be launched from any vessel.

Vocabulary:

- 1 submarine – подводная лодка – сүңгуір қайық
- 2 inverted wings – перевернутых крыла – төңкерілген қайықтар
- 3 bathyscaphes – батискафа – ванна
- 4 vessel – судно – ыдыс
- 5 is capped – закрыто – шектелген
- 6 a glass viewing dome – стеклянный смотровой купал – шыны карау күмбезі
- 7 the casing – кожух – корпус
- 8 at the rear for the motors – сзади для моторов – қозғалтқыштар үшін артында
- 9 knots – узлов – түйін
- 10 a cruising speed – крейсерская скорость – круиздік жылдамдық

Task 4 Answer the questions:

- 1 What is an American project of one-person submarine?

- 2 What materials were chosen for the vessel? Why?
- 3 How is the pilot's capsule look like?
- 4 How does the capsule work?
- 5 What is the cruising speed?

Task 5 Are the sentences True or False? Give True sentences:

- 1 An American project of one-person submarine is more like an airplane.
- 2 Alumina, a hard ceramic, was chosen for the vessel.
- 3 The pilot's capsule is about a meter in diameter, 7 centimeters thick.
- 4 It is capped at one end with a ceramic hemisphere.
- 5 The motors of the craft are made of a lightweight composite material.
- 6 The pilot effectively operates the craft by radio control.
- 7 The batteries feed a pair of electric motors that can drive the craft at up to 14 knots.
- 8 Deep Flight is designed to be as streamlined as possible.
- 9 At a cruising speed of 10 knots «Deep Flight» will descend at a rate of 200 meters per minute.
- 10 The weight of the craft is 2.5 tones.

Task 6 speak about “Deep Flight”

Unit 10

Task 1 Find Infinitive in the sentences and translate them:

A. 1. Hundreds of radio navigation stations watch the airplanes find their destination and land safely. 2. Twice a year people see birds fly south and north, but we don't know how they find their way. 3. At the Paris Exhibition people watched the cargo airplane «Ruslan» carry a great amount of cargo. 4. When you stand near a working engine you feel it vibrate. 5. Making experiments with electric telegraph Morse noticed a pencil make a wavy line when connected to an electric wire. 6. Nowadays people watch on television cosmonauts work in space, «Lunokhod» move on the surface of the Moon and Olympic games take place on the other side of the globe.

B. 1. A force applied to a body causes it to move in a straight line. 2. The unsatisfactory results of Bell's experiments forced him to change the method of testing. 3. The excellent properties of Damascus steel made metallurgists of the whole world look for the lost secret of the steel. 4. Very high temperatures often cause certain materials to break. 5. Bad weather conditions make pilots switch over to automatic control.

Task 2 Choose the right Verb in brackets paying attention to the Infinitive:

A 1 You ... (can/have) **to sing** this song. 2 Don't ... (allow/make) **her to marry** Mike. 3 Mother ... (asked/let) **him to explain** his words. 4 Jill ... (persuaded/made) **me to play** a joke on Tom. 5 We ... (saw/offered) **him steal** the wallet. 6 Did you ...

(agree/hear) **her shout** at me? 7 I couldn't ... (see/convince) **her to leave** early. 8 Stormy weather ... (caused/must) **the airline to cancel** out flight. 9 Tony ... (should/seems) **to know** a lot about global warming. 10 The nurse ... (saw/asked) **the children to roll** up their sleeves.

B Use Infinitive or -ing form:

1 It was quite late when they saw Martin ... (come) up the other side of the street. They saw him ... (pause) in front of his house, ... (look) up at it and ... (knock) at the door.

2 My parents let me (stay) at Molly's house last weekend. They agreed ... (take) me to his place in the car and they made me (promise) to behave myself.

3 Mel hates (answer) the phone. And very often Mel just lets it ... (ring).

4 At first Jenny enjoyed ... (listen) to Steven but after a while she got tired of ... (hear) the same story.

5 Polly can't (go) to the cinema today. She's busy ... (study) for her exam, which is next week, but she's decided ... (take) a break and ... (phone) Megan.

6 I tried ... (listen) carefully and in order (not/show) how I was embarrassed, I did my best ... (keep) the conversation ... (go) on one topic and another.

Task 3 Read and translate the text:

Laser and its applications

A laser produces a very narrow beam of light that is useful in many technologies and instruments. The letters in the word laser stand for **L**ight **A**mplification by **S**timulated **E**mission of **R**adiation.

A laser is an unusual light source. It is quite different from a light bulb or a flashlight. Lasers produce a very narrow beam of light. This type of light is useful for lots of technologies and instruments—even some that you might use at home!

Lasers have many uses. They are used in precision tools and can cut through diamonds or thick metal. They can also be designed to help in delicate surgeries. Lasers are used for recording and retrieving information. They are used in communications and in carrying TV and internet signals. We also find them in laser printers, bar code scanners, and DVD players. They also help to make parts for computers and other electronics.

Lasers are also used in instruments called spectrometers. Spectrometers can help scientists figure out what things are made of. For example, the Curiosity rover uses a laser spectrometer to see what kinds of chemicals are in certain rocks on Mars.

NASA missions have used lasers to study the gases in Earth's atmosphere. Lasers have also been used in instruments that map the surfaces of planets, moons, and asteroids.

Scientists have even measured the distance between the moon and Earth using lasers! By measuring the amount of time, it takes for a laser beam to travel to the moon and back, astronomers can tell exactly how far away it is!

Vocabulary:

- 1 a light bulb – лампочка – шам
- 2 a flashlight – фонарик – фонарь
- 3 retrieving information – получение информации – ақпаратты алу
- 4 precision tools – прецизионных инструмента – дәлдік құралы
- 5 bar code scanners – сканеров штрих кода – штрих-код сканері
- 6 spectrometers – спектрометров – спектрометр
- 7 curiosity rover – ровер любопытства – қызығушылық ровері
- 8 By measuring – по измерению – өлшеу арқылы

Task 4 Answer the questions:

- 1 What is Laser?
- 2 What can you say about the use of laser?
- 3 Can laser be used in communications? How?
- 4 What is spectrometer?
- 5 Why do NASA use laser?

Task 5 Are the sentences True or False? Give True sentences:

- 1 A laser is an unusual light source.
- 2 It is quite different from a light bulb or a flashlight.
- 3 Lasers produce a very wide beam of light.
- 4 Lasers are used in precision tools and can cut through diamonds or thick metal.
- 5 Lasers are used for recording and retrieving information.
- 6 They aren't used in communications and in carrying TV and internet signals.
- 7 Lasers also help to make parts for computers and other electronics.
- 8 Spectrometers can help scientists figure out what things are made of.
- 9 NASA missions have used lasers to study the gases in Earth's atmosphere.
- 10 Scientists measured the distance between the mars and Earth using lasers!

Task 6 Tell us about other laser applications

Unit 11

Task 1 Fill in the correct form of the Infinitive to make Complex Object.

- A**
- 1 Our teacher made us _____ (do) this exercise all over again.
 - 2 The teacher advised us _____ (rewrite) the test.
 - 3 Please, let me _____ (know) when your sister returns from Paris.
 - 4 I find your story _____ (be) very unusual and interesting.
 - 5 Nick doesn't want me _____ (tell) everybody this news.
 - 6 I watched the cat _____ (crawl) to the flock of sparrows.
 - 7 I would like you _____ (be) very accurate and attentive.

B Choose right variant:

- 1 Peace activist Baroness Bertha von Suttner encouraged Alfred Nobel ... a prize for peace. (establish / to establish / establishing / to be established)

2 The police officer made Neil get out of the car and demanded ... his driver's licence. (see / seeing / to see / to be seen)

3 In the time of Peter the Great the noblemen were not allowed ... beards. (have / to have / having / having had)

4 They wouldn't let ... the country without the entry visa, would they? (him to enter / he enters / him enter / him entering)

5 Fred couldn't make ... that he had caught the huge fish himself. (I believed / me believe / me believed / me to believe)

6 Nick was very close to the phone-box and Mary noticed him ... the number, and then she heard him ... something to passer-by. (to dial, to say / dialing, to say / to dial, say / dial, say)

7 Nick was seen ... the hall and then Jane watched him ... (enter, go away / be entered, to go away / enter, go away / to have entered, to be gone away)

8 It's too late now, but I will always regret ... John to do the work. (to ask / asking / ask / to be asked)

9 My friend Moira stopped ... whole milk because she is on a diet. (to buy / buying / buy / to be bought)

10 They were allowed... discussing the plans, so their partner introduced himself and went on to talk about the project. (to continue / continuing / continue / to be continued)

Task 2 Rephrase the sentences using Complex Subject:

e.g.: People consider the climate there to be very healthy. = **The climate there is considered to be very healthy (Complex Subject).**

1. People consider the climate there to be very healthy. 2. It was announced that the Chinese dancers were arriving the following week. 3. It is expected that the performance will be a success. 4. It is said that the book is popular with both old and young. 5. It is believed that the poem was written by an unknown soldier. 6. It is supposed that the playwright is working at a new comedy. 7. It is reported that the flood has caused much damage to the crops. 8. It was supposed that the crops would be rich that year. 9. It has been found that this mineral water is very good for the liver. 10. Scientists consider that electricity exists throughout space. 11. It is said that the weather in Europe was exceedingly hot last summer. 12. It was reported that five ships were missing after the battle.

Task 3 Read and translate the text:

New Hope for Energy

Recently some ceramic materials have been found to be superconductors.

Superconducting ceramics are substances which can transmit electric currents with no loss of energy at temperatures much higher than conventional superconductors (that is, at the temperature of liquid nitrogen).

One use for the new superconductors would be to replace those that need the extreme cold of liquid helium — huge superconducting electromagnets used in

nuclear magnetic resonance research, atomic particle acceleration and research reactors.

Other types of electromagnets made with superconductors could be used to lower the cost of electric generation and storage. Such uses may take 10 years of research, a quicker use will probably be in electronics.

Researchers now estimate that tiny but immensely powerful highspeed computers using superconductors may be three to five years away. Further off are 300 m.p.h. trains that float on magnetic cushions which now exist as prototypes but may take at least a decade to perfect. Power lines that can meet a city's electric needs with superconductor cables may be even further in the future.

Meanwhile, scientists around the world are trying to turn the new materials into useful products. Among the most notable is a micron-thin film to transmit useful amounts of electric current without losing superconductivity. The film could be used in the microscopic circuitry of advanced computers as high-speed pathway between computer chips.

Several nations are known to be very active in superconductor research. For example, the United States is spending millions of dollars on such research, much of it for military uses: projectile accelerators, lasers, ship and submarine propulsion.

Task 4 Answer the questions:

- 1 What materials have been found to be superconductors?
- 2 What are superconducting ceramics?
- 3 What would one use for the new superconductors be?
- 4 What is the use of superconductors in electronics?
- 5 Why is superconductors be using in powerful highspeed computers?
- 6 Why are scientists around the world trying to turn the new materials into useful products?
- 7 What nations are known to be very active in superconductor research?

Task 5 Are the sentences True or False? Give True sentences:

- 1 Some ceramic materials can be superconductors.
- 2 New superconductors would be to replace those that need the extreme cold of liquid helium.
- 3 Superconducting electromagnets used in nuclear magnetic resonance research.
- 4 Electromagnets made with superconductors could not be used to lower the cost of electric generation and storage.
- 5 A quicker use will probably be in electronics.
- 6 Power lines that can meet a city's electric needs with superconductor cables may be even further in the future.
- 7 Scientists around the world are trying to turn the new materials into useful products.
- 8 A micron-thin film can be transmitted useful amounts of electric current without losing superconductivity.

- 9 The United States are known to be very active in superconductor research.
10 Several nations are not spending millions of dollars on such research.

Task 6 Retell the text

Unit 12

Task 1 Change each sentence to the subjunctive mood. These are all *requests*.

Part A. Use the word "that" to begin a clause after the verb.

Examples: I asked them to be quiet. / The thief told her to give him the money.

I asked **that** they be quiet. / The thief demanded **that** she give him the money.

1. She asked him to fix the computer.

She requested _____.

2. Sandra wanted the post office to hold onto her mail.

Sandra asked _____.

3. The judge told the lawyer to be quiet.

The judge insisted _____.

4. My supervisor said it would be a good idea for me to accept this new position.

My supervisor suggested _____.

5. "He should fix it himself," I said.

I suggested _____.

Part B. Change each command to a sentence that uses the subjunctive mood in the clause following the verb.

6. "Give me a refund," John told the clerk.

John demanded _____.

7. "Could you help me move some boxes," Tom asked me.

Tom requested _____.

8. "Can you work this weekend?" Sue's boss asked. (Sue is a woman.)

Sue's boss asked _____.

9. "Stop drinking so much!" Bill's wife told him.

Bill's mother demanded _____.

10. "Take a vacation," our boss told us.

Our boss insisted _____.

Task 2 Complete the sentences. Here we have only real conditions.

1. If you want to be always healthy
2. You will have to consult the doctor if
3. If you have a running nose
4. You will escape the complications after a disease if
5. The doctor will surely write you a prescription if
6. The doctor will pull out your tooth if
7. Her headache won't stop if
8. You will be coughing and sneezing constantly if
9. She won't be able to continue her career if
10. If you don't cure your throat

11.If you don't take any preventive measures

Task 3 Read and translate the text:

Elon Musk

Musk subsequently founded Zip2, a company that provided maps and business directories to online newspapers. In 1999 the computer manufacturer Compaq bought Zip2 for millions of dollars. Musk then founded an online financial services company, X.com, which later became PayPal. The online auction eBay bought PayPal in 2002 for more than one billion dollars.

Long interested in space exploration, Musk in 2002 founded Space Exploration Technologies (SpaceX) to make more affordable rockets. Its first two rockets were the Falcon 1 (first launched in 2006) and the larger Falcon 9 (first launched in 2010). They were designed to cost much less than competing rockets. In addition to being CEO of SpaceX, Musk was also chief designer in building the rockets and spacecraft.

In 2004 Musk became one of the major funders and chairman of Tesla Motors (later renamed Tesla), an electric car company. In 2006 Tesla introduced its first car, the Roadster, which could travel 245 miles (394 kilometers) on a single charge. Unlike most previous electric vehicles, it was a sports car that could go from 0 to 60 miles (97 kilometers) per hour in less than four seconds. In 2008 Musk took over as chief executive officer. In 2018 the U.S. Securities and Exchange Commission sued Musk for fraud after he sent misleading tweets claiming that he had secured funding to take Tesla private. He was ultimately forced to step down as Tesla's chairman for three years, though he was allowed to continue as CEO.

In 2013 Musk proposed a high-speed rail system for California called the Hyperloop. It would use pod like vehicles that carried people through a system of tubes. The Hyperloop would complete the 350-mile (560-kilometer) trip between Los Angeles and San Francisco in 35 minutes at a top speed of 760 miles (1,220 kilometers) per hour, nearly the speed of sound. In 2016 Musk founded a tunnel-digging company called the Boring Company. It investigated ways to lower the cost and speed up the process of digging tunnels to accommodate the Hyperloop.

Vocabulary:

- 1 subsequently – впоследствии – кейін
- 2 space exploration – освоение космоса – ғарышты зерттеу
- 3 affordable rockets – доступные ракеты – қолжетімді зымыран
- 4 competing rockets – конкурирующие ракеты – бәсекелес зымыран
- 5 major funders – основных спонсоров – негізгі қаржыландырушы
- 6 a single charge – один заряд – бір рет зарядтау
- 7 chief executive officer – генеральный директор – бас атқарушы директор
- 8 for fraud – за мошенничество – алаяқтық үшін
- 9 misleading tweets – вводящий в заблуждение – жаңылыстыратын твиттер
- 10 ultimately forced – в конечном счете принудительно – ақырында мәжбүрлі

11 to accommodate – для размещения – орналастыру үшін

Task 4 Answer the questions:

1 What does Zip2 do?

2 What happened in 1999 and in 2002?

3 Why did Musk found Space Exploration Technologies (SpaceX)?

4 What were its first two rockets?

5 Why were Falcon 1 and the larger Falcon 9?

6 When did Musk become one of the major funders and chairman of Tesla Motors?

7 What can you say about the Roadster car?

8 What happened with Elon Musk in 2018?

9 What did Musk propose in 2013?

10 What did Musk founded in 2016?

Task 5 Are the sentences True or False? Give True sentences:

1 Musk subsequently founded Zip2.

2 Zip2 is a company that provided maps and business directories to online newspapers.

3 The online auction eBay bought PayPal in 2002 for more than one billion dollars.

4 Musk in 2002 founded SpaceX to make more expensive rockets.

5 Its first two rocket was the Falcon 9.

6 Falcon 1 and Falcon 9 were designed to cost much less than competing rockets.

7 In 2014 Musk became one of the major funders and chairman of Tesla Motors.

8 In 2006 Tesla introduced its first car, the Roadster, which could travel 245 miles (394 kilometers) on a single charge.

9 In 2018 Musk took over as chief executive officer.

10 Musk also proposed a high-speed rail system for California called the Hyperloop.

11 In 2016 Musk founded a tunnel-digging company called the Boring Company.

12 The Hyperloop would complete the 350-mile (560-kilometer) trip between Los Angeles and San Francisco in 35 minutes.

Task 5 Try to find right answers:

1 A company that provided maps and business directories to online newspapers

Zip2

Zip7

PayPal

eBay

2 In 1999 the computer manufacturer Compaq bought Zip2 for _____ of dollars.

millions
billions
thousands
hundreds

3 The online auction eBay bought PayPal in ___ for more than one billion dollars.
in 2002
in 2012
in 2022
in 2020

4 Why did Musk find Space Exploration Technologies (SpaceX) in 2002?
to make more affordable rockets
to make more affordable planes
to make more affordable aircrafts
to make more affordable stations

5 Musk was also _____ in building the rockets and spacecraft.
chief designer
software designer
chief engineer
chief mechanic

6 When did Musk become one of the major funders and chairman of Tesla Motors?

In 2004
In 2014
In 2010
In 2012

7 In 2006 Tesla introduced its first car _____.
the Roadster
Audi e-tron
Hyundai Kona
Ford Mustang

8 How far could Roadster travel on a single charge?
245 miles
255 miles
275 miles
285 miles

9 In 2008 Musk took over as _____.
chief executive officer
chief executive engineer
famous executive officer
chief popular officer

10 In 2013 Musk proposed a high-speed rail system for California called the_____.

Hyperloop
Railteam

Alstom

Bombardier

11 How fast would The Hyperloop complete the 350-mile trip between Los Angeles and San Francisco?

in 35 minutes

in 55 minutes

in 25 minutes

in 15 minutes

12 In 2016 Musk founded a tunnel-digging company called _____.

the Boring Company

the Exciting Company

the Amazing Company

the Interesting Company

List of literature

- 1 Marion Grussendorf «English for Presentation» Oxford University Press, 2007.
- 2 Raymond Murphy «Essential Grammar in Use». – Cambridge University Press, 2017.
- 3 Матвеев С. А. «Английский язык для продолжающих уровень А2». – Москва, 2016.
- 4 Орлова Л. А. «Самоучитель английского языка». – Москва, 2015.
- 5 Рубцова М. Г. «Полный курс английского языка учебник – самоучитель». – Москва, 2015.

Contents

Introduction.....	3
Part 1 Unit 1.....	4
Unit 2.....	4
Unit 3.....	6
Unit 4.....	8
Unit 5.....	11
Part 2 Unit 1.....	13
Unit 2.....	15
Unit 3.....	18
Unit 4.....	20
Unit 5.....	22
Unit 6.....	25
Unit 7.....	27
Unit 8.....	29
Unit 9.....	32
Unit 10.....	34
Unit 11.....	36
Unit 12.....	39
List of literature.....	44

Aldengozhayeva Ella Sarkulovna

ENGLISH

Methodological guidelines for performing self-study assignments for the students of A2 level

Editor:
Standardization specialist:

Karashina G.T.
Anuarbek Zh.A.

Signed to print
Circulation 50 copies
Volume 3.0 publishing sheets

Format 60x84 1/16
Typographical paper № 1
Order _____ Price 1500 tg

Multiple copying Office of
Non-Profit Joint Stock Company
“Almaty University of Power Engineering and Telecommunications”
050013, Almaty, Baytursynov st. 126/1