

МИНИСТЕРСТВО НАУКИ И ВЫСШЕГО ОБРАЗОВАНИЯ
РОССИЙСКОЙ ФЕДЕРАЦИИ
ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ АВТОНОМНОЕ ОБРАЗОВАТЕЛЬНОЕ
УЧРЕЖДЕНИЕ ВЫСШЕГО ОБРАЗОВАНИЯ
«СЕВЕРО-КАВКАЗСКИЙ ФЕДЕРАЛЬНЫЙ УНИВЕРСИТЕТ»

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MY SCIENTIFIC WORK

WHY DO WE CHOOSE POSTGRADUATE STUDIES?

Task 1 Learn the words. Think of your own examples with these words.

abstract of thesis (article) автореферат диссертации (статьи)

adviser, n 1 куратор 2 научный руководитель

assistant professor, n доцент (учёное звание ниже, чем associate professor)

associate professor, n 1 доцент университета 2 адъюнкт-профессор

candidate for Master's degree кандидат на соискание учёной степени магистра

continuing professional development – CPD продолжение профессионального образования

Doctor of Science = ScD = DSc доктор технических

наук *entrance examinations* вступительные экзамены

GCE – general certificate of education – свидетельство об общем образовании

master, n магистр – учёная степень

magister, n учёное звание магистра

degree of master степень магистра

magistracy, n магистратура

Master's degree, n магистр

MSc – Master's degree in science

part time program краткий курс; *antonym: full time program* полный курс

PhD кандидат наук

postgraduate, n аспирант

postgraduate courses аспирантура

Task 2 Translate the sentences

1. Every postgraduate has to write abstract of thesis before the thesis.

The abstract of thesis is published or presented online.

2. The adviser has to manage the process of the research and defense.

Highly-qualified adviser is very important for each postgraduate student and candidate for Master's degree.

3. The assistant professor position means the scientific work activity and prosecution of research. Assistant professors carry out the scientific work of their own.
4. The associate professor position is higher than that of the assistant professor. Associate professors carry out the scientific work of their own and guide postgraduate studies and their scientific research.
5. Candidates for Master's degree take the course of studies after four years of university studies and graduation. In two years they will get the Master's degree.
6. After graduation one of the ways of the career's promotion is to take the CPD course. Continuing professional development courses gives new job competences.
7. To become Doctor of Science one has to take the course of doctorate. After defense of doctorate thesis my brother will become the Doctor of Science.
8. In magistracy postgraduate students get the degree of master and then take postgraduate studies.
9. Next year I am going to enter magistracy and become the candidate for degree of master. Studies at magistracy are the stage before taking postgraduate course.
10. To become a master the graduate enters magistracy. After studies at magistracy the candidate can get the Master's degree and then the magister.
11. There is a great variety of Master's degrees in science. Among them are the master's degrees in Biological Chemistry, Biological Science, and Physics. I would like to get the degree of master in Biological Physics.
12. All the students, candidates for master's degree, postgraduates, and teachers write research papers. Research papers define the rate of scientists.
13. The magistracy offers a wide range both of part time and full time programs.
14. PhD degree is given after postgraduate studies and defense of thesis.
15. Being postgraduate means carrying out a lot of scientific research. Postgraduates spend much time with studies.
16. Both masters and specialists can take postgraduate courses. Getting postgraduate courses certificates is an obligation necessity for continuing one's operational procedures.

Task 3 Read about the reasons for choosing the postgraduate course. What are your personal reasons? Motivate your choice.

Why Do We Choose Postgraduate Studies?

What does choosing the postgraduate course mean for a person? It is going up the level higher than the first degree. What are the reasons for taking postgraduate studies? The first one is the stimulus of the *intellectual challenge*: working with concepts, approaches, methods and ideas, developing skills of analysis and research among the researchers and academics.

The second reason is the *personal challenge*. What is the difference between the *undergraduate* and the *postgraduate level*? Undergraduate level *develops* study skills and the ability of independent studies, and the postgraduate course specifies skills perfection, responsibility, independence in one's own learning, ability to work with complex ideas and concepts and developing them.

Next, there is the serious problem of career prospects, more interesting and highly paid jobs. PhD degree or degree of Doctor of Science can be an obligatory requirement for entering the career, the researcher career or securing promotion to higher levels. In some professional fields the joint programs of universities and employers are undertaken both at undergraduate and postgraduate level and these programs are defined as the first stage of learning for the trainees.

For a number of postgraduates entering academic career as the university teacher and researcher is important. Besides, with rapid extension of higher education in some countries high-status academic position is available only with the Doctorate. It means the increase of the demand for people educated to Doctorate level.

Task 4 Read the dialogue and discuss your motivation to enter the postgraduate studies. Make up a dialogue.

Motivation to Enter the Postgraduate Studies

- Jane, I have not recently seen much of you.
- In fact, I was very busy with entrance exams for postgraduate studies.
- How clever of you!
- You see, mostly it's my choice of intellectual challenge: working with concepts, approaches, methods and ideas, developing skills of analysis and research among the researchers and academics. Besides, it's the

personal challenge as well. I would like to master my personal skills. They improve the development of my future career.

- I myself would also like to take undergraduate course in Computer Science to be able to carry out research projects at the high-tech level.
- Good luck.

Task 5 Answer the questions and speak about your supervisor. Present your own ideas of the scientific work.

I Am the Magistrate /Postgraduate

I have chosen the magistracy/postgraduate course. What does it mean? It's my choice.

Why have I done it? The main thing is I would like to become a professional in the sphere of computer science. As a matter of fact, I follow the concept of the extended studies. First of all, I would like to become a programmer and then the computer analyst. I have to learn all the newly advanced technologies both in Russian and in English, to read the electronic and published materials, and also to be capable of carrying out the creative project work.

My research supervisor is the Doctor of Engineering, Professor. I admire him as the scientist. He is the Head of Department of Information and Computing Systems. He is the scientific research organizer. The teachers conduct scientific researches personally and in groups in accordance with the plan of the department. There are lectures and seminars. My supervisor is known both in Russia and in the world. He is often the participant of regional or international home and foreign conferences. He is in contact with the other world scientists.

As for me, I have chosen my subject already. Writing dissertation abstract with research actuality, purposes and tasks, theoretical and practical meaning, innovations is very substantial. After that I have to choose the material and make some notes, write draft, structure of my paper, edit and publish it.

TYPES OF POSTGRADUATE

PROGRAMS Task 6 Useful words

postgraduate certificate - PGCert - свидетельство об окончании аспирантуры

postgraduate diploma - PGDip - диплом об окончании аспирантуры

postgraduate level – уровень аспирантуры

postgraduate studies, аспирантура

research, n научное исследование, исследовательская работа

research degree учёная степень

research prosecution проведение исследовательской работы

science, n наука

scientist, n учёный

scientific, adj научный

Task 7 Translate the sentences

1. After passing candidate exams, postgraduates get postgraduate certificates or postgraduate diplomas. Postgraduate certificate allows thesis. 2. Getting postgraduate diploma is a new stage towards the thesis. Postgraduate diploma comprises the name of postgraduate course, the place of studies and the final results of studies during postgraduate training. 3. Postgraduate level is higher than the one of the magistracy. Postgraduate level ensures the career promotion. 4. I will take a course of postgraduate studies after magistracy. I am going to take my postgraduate training in Engineering. 5. I have been conducting the research for two years under the adviser's supervision. The results of my research are both published and presented in the electronic form. 6. Getting the research degree is the final and main purpose of postgraduate studies. Research degree opens the way to research broadening and achieving better results in science. 7. Research prosecution is very important both in theoretical and practical research. Research prosecution is an integral part of the methodological base of studies. 8. My advisor devoted all his life to science. Science is the main thing for the scientist. 9. He is a distinguished scientist in computer science field. I admire his activity. 10. The results of the scientific work

are published in scientific journals or in abstracts of thesis, in books, articles and reports. There is the catalogue of scientific publications in traditional and electronic libraries.

Task 8 Read about the types of postgraduate programs.

Types of Postgraduate Programs

Actually, there are two main types of postgraduate programs: taught and research. What is the difference? How can one define the program type? In taught programs training is mainly carried out through classroom lectures and practice, seminars, computing and laboratory, coursework and exams. The work in a research program is the knowledge development. It is usually part of the educational institution research. The entry criteria and the description are of a great help.

All master's programs contain the research elements, and there are some combined programs with taught and research elements, for example, the Doctor of Engineering (DEng). Funded integrated programs are of special interest. The designation '3+1' means an academic year in the master's studies and three-year PhD. The conversion courses are intended to change the students' research direction according to the new career. That is why these courses are intense and deep in the new research subject. Program coordinators help everybody to choose the program.

In fact, stand-alone taught postgraduate programs are the first stage in postgraduate education before obtaining a research degree. In the United Kingdom of Great Britain and Northern Ireland (the UK) there are three levels in taught program: postgraduate certificate (PGCert), postgraduate diploma (PGDip) or masters (in science – MSc). They are less than a year and can be either a part of continuing professional development (CPD) or preparation for the full time taught program.

Sometimes diplomas (MScDiplomas) are awarded to students following the masters (full time program during a year, part time program for two years) without completing the dissertation (20, 000 words). Engineering programs can be achieved both as an extended period of undergraduate study during a year – M (Eng) or stand-alone

one-year programs for thorough learning the specific area of the discipline – MSc.

In research programs the master's level for two years is called Master of Research (MRes) or Master of Philosophy (MPhil). All these programs teach mainly the research skills. PhD is the highest research degree, three years or more. It is much longer, from 7, 000 to 10, 000 words. With PhD one becomes a leading expert in a certain specialization.

Task 9 Answer the questions.

- 1) Which types of programs are the most effective ones?
- 2) Identify the types of programs and their learning goals.
- 3) Express your point of view and try to prove it with facts.
- 4) Speak about what PhD is.
- 5) Are you going to become PhD yourself?

WORKING ON THE TOPIC: MY SCIENTIFIC (RESEARCH) WORK

Task 10 *Useful tips*

Plan your topic as follows:

My major interest is in the field of....

The title of my future thesis is....

My tutor is

The research I am doing now is a part of a bigger work../ within the framework of the academic research conducted by professor.../a group of scientists...

This work is devoted to an important problem into which too few scientists have researched until now.

Earlier studies of this subject show that the problem has not been yet properly explored.

The main aims of your research work and the tasks to complete:

My study deals in the problems of.../is devoted to the investigation of...

It touches upon the problems of...

The main purpose/goal/aim of it is...to find out/to define/to characterize/explore/to investigate/to analyse/to gain/.....

It is aimed at

I set myself a task to/of...

the tasks that face us /that we are faced with/are as follows....

Useful words and words combination

analysis n (pl -ses) анализ, исследование, подробное рассмотрение

critical analysis - критический анализ

advanced research - перспективные исследования

basic research - фундаментальные исследования

to be engaged in research - заниматься научно-исследовательской работой

This researches cover a wide field - исследования охватывают широкую область

pilot study - предварительное, экспериментальное исследование

desk study - чисто теоретическое исследование

thorough examination - а) всестороннее исследование; б) тщательное изучение (материала)

to carry on an investigation - проводить исследовательскую работу

the scientific method of inquiry - научный метод исследования

comparative [experimental] method of investigation - сравнительный [экспериментальный] метод исследования

convenient method - подходящий метод

data for study - материал исследования

laboratory data - данные лабораторных исследований

adequacy of data - достоверность данных

the backbone of a theory - основа теории

to back up a theory with facts - подкрепить теорию фактами

to approximate to a solution of the problem - подходить к решению задачи

interdisciplinary approach - подход с точки зрения различных наук

Task 11 Translate the sentences.

1. His method is to compare different versions. 2. There are several methods of doing this. 3. This method is attended by some risk. 4. We must apply to finding a solution. 5. His method is to compare different versions. 6. There are several methods of doing this. 7. We began the work by collecting material. 8. application of a theory in actual practice. 9. the results of the experiment contradicted this theory./agreed with the theory.

Probable Questions and Answers

- 1 A. Why did you decide to take a post-graduate course?
 B. I am interested in scientific and research work. I am sure I will be able to improve my knowledge and upgrade my qualification studying in the post-graduate course. I also hope that my research will help solve the problem of ... in my field.
- 2 A. What is your field?
 What are you specializing in?
 B. My field is...
- 3 A. What is the title/ the headline of your thesis/ dissertation?
 What is the theme/ the subject of your thesis?
 Have you chosen the subject for your thesis?
 B. The title of my thesis is ".....".
 The theme of my dissertation is ...
 I think that it will consist of an introduction, the main part (that is, two or three chapters), conclusions, and references.
- 4 A. Is your current research connected with your graduation paper?
 B. Yes, it is. In fact, my research is the continuation of my graduation project. On the other hand, I expand the area of study and consider the problem of ... from another point of view.
 B. No, it isn't. To say the truth, I changed my field.
- 5 A. Have you already begun working at your thesis?
 B. Yes, I have. I've (already) studied the information dealing with my research (on my research). I've written the Introduction/the first chapter of my thesis.
 B. No, I haven't. First I plan to pass my Candidate's exams. I also must collect and analyze the information and data on my research.

I must study papers and articles by foreign and Russian scientists and put forward a hypothesis.

6 A. Who is your scientific advisor/ supervisor?

B. My supervisor is Prof. N. He is a Doctor of Technical Sciences, an academician, a correspondence-member of the Russian Academy of Sciences. He is a well-known specialist in his field. He has a lot of published papers and takes part in different conferences and symposiums. I am glad to work under Prof. N's supervision. I read some of his articles in scientific journals and magazines. I think they are not only interesting but useful for my own research.

7 A. What does your supervisor do? / Where does he work?

B. He works at the ... University/ at the Department of...
He is the Head of the ... Department/of the ... Laboratory.
He is the dean of the ... faculty/ department.

8 A. In what way does your supervisor help you (with your research)? How often do you consult your scientific advisor?

B. It's hard to overestimate my supervisor's help.
Prof. N., that is my scientific advisor, helped me choose the subject of my research and to make up the plan of my work. I consult him every two or three weeks. He looks through the results of my work and corrects some mistakes.

9 A. Do you prefer to work on your own or in a team?

B. To say the truth, I prefer to work on my own but sometimes the research itself or carrying out experiments cannot be done individually.

10 A. Have you ever taken part in scientific conferences?

Did you participate in any scientific conferences or symposiums?

B. Yes, I have. Last year I took part in the (regional/national/international) conference in Omsk. I made a report on the results of my research.

B. No, I haven't./ Not yet. But next year I am going to participate in a conference (which will be held in Omsk). I know that conferences and symposia are very important for scientists and researchers. They give an opportunity to present the results of one's work and to exchange opinions on this or that problem.

11 A. Is your research theoretical or practical?

B. Well, I think my research is (purely) theoretical work. It is (both) theoretical and practical.

- 12 20. A. What machines (equipment/ materials/ technologies/ processes) used in your field do you know?
Which of them do you use in your own research?
B. In my field there is a great variety of ... such as...
There are many different methods of ... / The main of them are ... / The most common of them include...
- 13 A. What is the goal of your research?
What problem(s) would you like to solve by your research?
B. The aim of my research is... / I'd like (I would like) ...
- to improve the technology of...
- to develop a new material/ substance for...
- to work out a new approach to...
- to increase ... (labour productivity, the output of ...)
- to cut the time of... / the cost of...
- to decrease the effect of the production upon the environment
- 14 A. Do you know any Russian or foreign researchers/ investigators working in your field?
B. Yes, I do. There are many/ few scientists working in my field.
Among them there is Prof. N from... He is known for...
- 15 A. Is your field important for the national economy?
B. Sure./ Of course, my field is very important because/ as...
It plays a great role in ... / It makes it possible to...
It provides the region/ the country with...
- 16 A. Is English your first Candidate's exam?
B. Yes, it is. As a post-graduate I have to pass three exams: in a foreign language (for me it is English), in philosophy and in my speciality (that is, in management). As for philosophy I will have it on the 15th of June. And I'll take the exam in my specialty next year.
B. No, (it isn't). I have already passed my exam in philosophy. I passed it last year.
- 17 A. Do you know any English magazines and journals in your field?
B. Not many, but there are such journals as...

Task 12 Discuss the problem: «I am interested in scientific and research work»

Part II SCIENCE

1. PASSIVE STRUCTURES AND THEIR MESSAGE

Task 1.1. Identify the passive structures and the logical predicates, translate the sentences into Russian.

The problem was first recognized in the 19th century. Later an idea was suggested to apply it to practical things. Many possibilities for practical applications were analyzed. Some of these were tested by experiment. The experimental results were not generally accepted, and the idea was discarded. Then other consequences were deduced and a new model proposed. Recently the model has been modified and is now being used in many practical situations.

Task 1.2. Give English equivalents of the following Russian phrases using impersonal passive structures and adverbs "widely," "generally" where required.

1. Говорят, что.... 2. Предполагается, что.... 3. Можно надеяться, что.... 4. Следует признать, что.... 5. Было найдено, что.... 6. Общеизвестно, что.... 7. Считают, что.... 8. Широко распространено мнение, что

Remember some of the verbs taking a direct object in English but equivalent to Russian verbs followed by a preposition.

to affect - влиять (на);

to answer - отвечать (на);

to approach - подойти (к);

to attend - присутствовать (на) (и активно участвовать);

to consult - консультироваться (у, с);

to enjoy – получать удовольствие (от), пользоваться;

to follow - следовать, следить (за);

to influence - влиять (на);

to join - присоединяться (к);

to watch - наблюдать (за).

Task 1.3. Identify passive structures followed by a preposition and give Russian equivalents.

1. This method has been referred to in an earlier paper. 2. I do not think this instrument can be relied upon. 3. The data cannot be accounted for by the existing theory. 4. This theory has been referred to as the "big bang" theory. 5. The best treatment of this syndrome is generally agreed upon. 6. Rapid development of chemical technology has been called for by the needs of the national economy. 7. The prolongation of life may be thought of as a feat of endurance rather than a race against time.

Task 1.4. Identify the structures and give Russian equivalents of the relevant part of the sentence.

1. The usual procedure is that information storage is followed by information analysis. 2. The procedure proposed provided the required mechanism of reaction. 3. The opening session of the Congress was preceded by a meeting of the General Assembly to elect a new president. 4. It must be admitted that the problem of science classification can be approached from several viewpoints. 5. There are fields which cannot be dealt with on a national scale only, such as environmental protection, space exploration and so on. 6. The difficulties encountered by anyone who attempted to solve the problem are much greater than those faced in the endeavour to reach the summit of Mount Everest. 7. In most important applications cotton has been substituted for by synthetic fibres. 8. The rate of the reaction is affected by the change in such parameters as concentration, temperature and pressure. 9. Under these circumstances one is faced with a magnified form of a danger common to all inventions: a tendency to use them whether or not the occasion demand. 10. In most cases the solution of such problems is called for by industrial needs. 11. It is often argued that in the 20th century we are left with no expansion of wisdom and with greater need for it. 12. When at last the patient is allowed to sleep he will probably wake up after some

10 - 12 hours. 13. These ideas are hardly recognized as mathematics at all by the people trained in the classical branches of the subject. 14. Some aspects of the foregoing topics are dealt with in the next chapter, and a number of problems created by some of the new activities are mentioned but not discussed in detail. 15. Some diseases may show only when an organism containing mutant genes is influenced by certain factors of the environment. 16. No attempts have been made to list all the contributions in which different procedures have been developed and later used. 17. Recent discoveries in all sciences have been greatly assisted by the developments in contemporary research techniques dealt with in the last section of this book. 18. The congress attended by scientists from all the institutions concerned attracted much attention and was referred to as a most representative forum in this field. 19. An alternative to the models discussed above is the steady-state theory of continuous creation referred to earlier and depicted in Fig. 1.

Task 1.5. Give English equivalents of the italicized part of the sentences, using passive structures and the verbs: to affect, to allow, to attend, to develop, to deal with, to face, to follow, to make use of, to refer to.

1. За докладом *последовала* бурная дискуссия. 2. На скорость реакции *влияет* множество других факторов. 3. Этот вопрос будет подробно *рассмотрен* в главе III. 4. На этой стадии мы *столкнулись* с новыми трудностями. 5. Ему *не дали возможности* закончить эту работу. 6. В последнее время эта теория часто *упоминается* во многих статьях. 7. Семинар, на котором присутствовало всего 5 человек, *прошел* вяло и неинтересно. 8. Для того чтобы *преодолеть* эти недостатки, использовали новую методику, специально разработанную для данного эксперимента.

Task 1.6. Translate into English.

1. Проблема была впервые поставлена (осознана) в XVIII веке.
2. Предполагается, что полученные расчетные данные были

проверены экспериментально. 3. Теория была принята большинством ученых после того, как были получены новые доказательства в ее поддержку. 4. (В статье) представлены новые данные относительно механизма этого процесса. 5. Это расхождение можно объяснить разными методиками измерения. 6. (В работе) использован новый метод расчета этого параметра и предложена новая модель процесса. 7. Особое внимание уделено сравнению экспериментально полученных результатов с результатами, предсказанными теоретически. 8. В лаборатории установлено новое оборудование.

Task 2. Translate the text.

SCIENCE. (I)

For many thousands of years the earth was inhabited by creatures who lived and died without passing on their experiences to following generations. These early fish, reptiles, birds and mammals could only «talk» to each other through the roars, calls and screams of the jungle. Yet, somehow, from these prehistoric beings a more intelligent animal evolved with a brain able to form the controlled sounds of speech.

This human being began to use rocks and trees to fashion weapons to help him hunt for food. Stones and spears were probably the first tools used by humans as extensions of their own bodies – the spear could travel faster in flight than man could run – and this ability to invent tools and pass on knowledge gave man a growing control of his surroundings. His search for new ways to survive and to improve his way of life continued through the ages thus the story of man's world of science and invention was shaped.

Writing is known to contribute much to man's experience accumulation, books printing being his greatest brainchild. As knowledge grew and the art of writing developed, parts of the story were recorded – some in one book, some in another. No man could remember all there was to know and writers found it useful to classify their knowledge under separate headings – much like a library arranges its books in sections so that the reader will know where to look for each

subject. Science became separated into various branches. But its progress began only when man started to search for natural laws and principles, and produced theories, applying to scientific methods, such as: observation, analysis, synthesis, induction, deduction, hypothesis and experimentation.

Give the right definitions for all terms.

- | | |
|----------------|---|
| 1) observation | a) a formal set of ideas that is intended to explain why smth happens or exists. |
| 2) induction | b) the process of using information or finding the answer to the problem. |
| 3) deduction | c) a method of discovering general rules and principles from particular facts and examples. |
| 4) analysis | d) an idea or explanation of smth that is based on a few known facts but has not yet been proved to be true or correct. |
| 5) synthesis | e) the act of watch smth carefully for a period of time, esp. to learn smth. |
| 6) hypothesis | f) the detailed study or examination of smth in order to understand more about it. |
| 7) experiment | g) the act of combining separate ideas, beliefs, styles; a mixture or combination of them. |

8) theory

h) a scientific test that is done in order to study what happens and to gain new knowledge.

Task 2.1. Translate the sentences.

1. Prehistoric man turned out to be the first inventor of tools and weapons. 2. The Greek philosophers are considered to have contributed much to the development of science. 3. Aristotle is known to have exercised a great influence on the principles of scientific thinking. 4. Psychology and economics prove to attract a great number of young researchers. 5. We think our scientific supervisors to help us much in writing theses. 6. Science is likely to develop new fields of research. 7. The ideas of professor Brown appear to produce a breakthrough in understanding of this phenomenon. 8. Every post-graduate student is expected to write a number of scientific papers. 9. A scientific supervisor thinks a post-graduate's work to be completed if it takes the form of a dissertation. 10. The conference is sure to give a new stimulus to further investigation of the problem.

Task 3. Read and translate the text.

SCIENCE (II)

Science (from Latin *scientia*, meaning "knowledge") is an enterprise that builds and organizes knowledge in the form of testable explanations and predictions about the world. An older and closely related meaning still in use today is that of Aristotle for whom scientific knowledge was a body of reliable knowledge that can be logically and rationally explained. Since classical antiquity science as a type of knowledge was closely linked to philosophy. In the early modern era the words "science" and "philosophy" were sometimes used interchangeably in the English language. By the 17th century, natural philosophy (which is today called "natural science") had begun to be considered separately from «philosophy» in general, while, "science" continued to be used in a

broad sense denoting reliable knowledge about a topic, in the same way it is still used in modern terms such as library science.

However, in modern use, "science" is still mainly treated as synonymous with 'natural and physical science', and thus restricted to those branches of study that relate to the phenomena of the material universe and their laws, sometimes with implied exclusion of pure mathematics. This is now the dominant sense in ordinary use. The word "science" became increasingly associated with the disciplined study of physics, chemistry, geology and biology. This sometimes left the study of human thought and society in a linguistic limbo, which was resolved by classifying these areas of academic study as social science. In its turn the term «humanities» or «arts» refers to the subjects of study that are concerned with the way people think and behave, for example literature, language, history and philosophy (as it understood nowadays).

Science is often distinguished from other domains of human culture by its progressive nature: in contrast to art, religion, philosophy, morality, and politics, there exist clear standards or normative criteria for identifying improvements and advances in science. For example, the historian of science George Sarton argued that “the acquisition and systematization of positive knowledge are the only human activities which are truly cumulative and progressive,” and “progress has no definite and unquestionable meaning in other fields than the field of science”. However, the traditional cumulative view of scientific knowledge was effectively challenged by many philosophers of science in the 1960s and the 1970s, and thereby the notion of progress was also questioned in the field of science.

Debates on the normative concept of progress are at the same time concerned with axiological questions about the aims and goals of science. The task of philosophical analysis is to consider alternative answers to the question: What is meant by progress in science? This conceptual question can then be complemented by the methodological question: How can we recognize progressive developments in science? Relative to a definition of progress and an account of its best indicators,

one may then study the factual question: to what extent, and in which respects, is science progressive?

Task 3.1. Say if the following statements are true or false. Correct the false statements.

1. The term «science» is applied only to natural science. 2. The word «knowledge» is derived from the negation «no», meaning the path leading from ignorance to understanding the world. 3. Natural and physical sciences deal with testable explanations and predictions. 4. Aristotle studied the body of a human being and gained a reliable knowledge in this sphere. 5. There was a time when «science» and «philosophy» meant the same. 6. The word «science» and the word combination «natural and physical science» are looked upon as synonymous. 7. Pure mathematics is included into the notion «natural and physical science». 8. Library science naturally belongs to humanities.

Task 3.2. Read the whole text again and see if any corrections should be made in your original outline. Write an abstract of the text in three sentences.

Task 4. Read the text to yourself and be ready for a comprehension check-up.

SCIENTIFIC METHOD AND METHODS OF SCIENCE

It is sometimes said that there is no such thing as the so-called "scientific method"; there are only the methods used in science. Nevertheless, it seems clear that there is often a special sequence of procedures which is involved in the establishment of the working principles of science. This sequence is as follows: (1) a problem is recognized, and as much information as possible is collected; (2) a solution (i. e. a hypothesis) is proposed and the consequences arising out of this solution are deduced; (3) these deductions are tested by experiment, and as a result the hypothesis is accepted, modified or discarded.

Task 4.1. Check up for comprehension.

1. Find two sentences which express two different viewpoints on the existence of "scientific method". 2. What words show that the first sentence is an opinion? 3. What word shows that these viewpoints are in opposition? 4. Find the words equivalent to "scientific method". 5. What procedure does the scientist follow in his research?

Task 5. V-ING FORMS: POSITION AND FUNCTION IN THE SENTENCE

Task 5. 1. Identify the structures and give Russian equivalents of the relevant part of the sentence.

1. Establishing relationship between the phenomena of the Universe is a major task of theory. 2. Having reported of his discovery of rays of unknown nature Bequerel excited the curiosity of Marie Curie. 3. Realizing the necessity for a different approach the physicists reluctantly abandoned the project. 4. Confining his attention to one problem the scientist will surely achieve its solution much sooner. 5. Putting the discovery to use sometimes requires more effort than making it. 6. Pointing out their mistakes to some people is often quite difficult.

Task 5. 2. Identify the structures give Russian equivalents.

1. Every new idea is immediately taken up and developed further, forming the initial point of an avalanche-like process. 2. It has been shown that there is a distortion of the crystal lattice, accompanying the charge-ordered state. 3. What is worth doing is worth doing well. 4. At this stage innovation becomes a group and not an individual activity, involving both a sophisticated body of information and a sophisticated technology. 5. Soon Pierre Curie joined Marie Curie in her search for the "mysterious" substance, giving up his own research. 6. It is no good stressing a paradox if you wish to excite curiosity of the audience unprepared for the lecture. 7. In 1913 Bohr proposed the solar theory of the atom, giving rise to still greater activity in both theoretical and experimental nuclear physics. 8. Some people have been so scared

reading about harmful effects of smoking that they gave up reading. 9. Now mention should be made of the fact that geochemistry applies the concepts of chemistry to terrestrial circumstances, studying the distribution of elements in the course of geologic evolution. 10. The editor could not help detecting many errors both of fact and of thinking. 11. Are these prognoses really worth making? 12. To find out more about the space scientists sent little moons, or satellites, circling in orbits above the Earth.

Task 5. 3. Substitute the proper English words from the list below for the Russian words in brackets.

1. His research (привело к установлению) a new principle. 2. The success of the space research program (явился результатом соединения) the latest achievements in science and technology. 3. Using modern installations and techniques the scientists (удалось решить) a complicated engineering problem. 4. Pure science (стремится постичь) the laws of the material world. 5. Traditionally chemists (занимались измерениями) the properties of matter and (анализом) the reactions by which some chemical substances are transformed into others. 6. A quantum chemist (интерисует построение) adequate mathematical models of atomic and molecular structures. 7. Prof. E. was the first to see the advantages of the new approach and (настаивал на использовании) it to interpret the results. 8. Adequate theories often (избавляли ученых от проведения) many useless experiments. 9. This group of engineers (ответственна за модернизацию) the laboratory equipment. 10. The advent of electronic computers (способствовало освобождению) man's brain from the labour of measurement and computation.

to aid in freeing; to aim at understanding; to be concerned with measuring and analysing; to be interested in constructing; to be responsible for modernizing; to insist on making use of; to prevent

scientists from making; to result from combining; to result in establishing; to succeed in working out.

Task 5. 4. Identify the structures and give Russian equivalents of the relevant part of the sentence.

1. If you never thought of asking a question you are not interested in having the answer. 2. If you want to succeed in interesting the audience you should not try surprising them with an isolated fact. 3. By having defined one's research objective one has already made the first, and the most important, step towards the final success. 4. Modern chemistry is primarily concerned with building structural bonds between the elements of matter. 5. Many useless experiments were prevented from being made by an adequate theory. 6. A true scientist is interested in being told about his mistakes. 7. Research is searching without knowing what you are going to find. 8. Any single card should contain notes from only one source. This will aid in arranging and organizing the materials for your research paper. 9. We do not know how to solve the problem of interesting schoolchildren in science. 10. His research resulted in establishing a new mechanism of the process. 11. Some people say that theory is a device for saving time.

Task 5. 5. Identify the structures and give Russian equivalents of the relevant part of the sentence.

1. The possibility of there being life on Mars is very doubtful. 2. The most interesting of these phenomena is the reduction of carbon, nitrogen and sulfur, each concentrated at a different interface, two being out of immediate contact with air. 3. This is the principle of inertia - if something is moving, with nothing touching it and completely undisturbed, it will go on forever at a uniform speed in a straight line. 4. An understanding of these particles, in spite of their being connected with the basic forces of the universe, presents a tremendous challenge to the human intellect. 5. The test consists of repeated measurements of intensity with various sizes of apertures being used. 6. The difference between the two values probably accounts for the measured sensitivity

being higher than that predicted by theory. 7. One of the objectives of carrying on research at the university is to provide intellectual exercise for the lecturer. This is achieved by the lecturer doing research between lectures and other duties. This presupposes the necessary equipment being available at the university. 8. Man's principal function in space being maintenance and repair work is beyond any doubt. 9. The 35-year gap in the appreciation of Mendel's discovery is often attributed to Mendel's having been a modest monk living in an out-of-the-way Moravian monastery. 10. A few more functional elements, germanium perhaps being a good candidate, may be discovered in the future.

Task 5.6. Give English equivalents of the italicized part of the sentences.

1. *Мысль о том, что и ученые и общественность несут ответственность* за решение этой проблемы, кажется вполне логичной в настоящее время. 2. *История изучения пульсаров началась в 1968 году с того, что радиоастрономы объявили об* открытии необычного класса объектов. 3. Эти объекты получили шутливое название «пульсары», *причем это название быстро стало* стандартным термином. 4. Считают, что каждое *исследование начинается с постановки ученым проблемы*. 5. Ученый получил новые доказательства того, что его гипотеза верна. 6. Так как большинство субатомных частиц имеет очень короткий период жизни, электрон, протон и нейтрон остаются основными объектами изучения в электронике.

Task 5. 7. Identify the structures and give their Russian equivalents.

1. It is not claimed that the research is aimed at deriving an entirely different set of axioms. 2. A bit of work was needed to establish this but once the result was accepted, it was the best instrument for exploring the atom. 3. In the early days of World War II many Engineers were faced with the task of mastering the techniques of using radar 4 Methods employed in solving a problem are strongly influenced by the research

objective. 5. The inquiry could be greatly helped by distinguishing two different classes of research techniques. 6. In one's search to understand what happens in this particular case, one cannot help being influenced by the history of quite another problem. 7. The question of collective scientific discoveries has already been raised, it having been suggested that a solution of some urgent problems can be best achieved that way. 8. During such experiments interfering influences must be excluded and an artificial environment created in which the contribution of the individual components can be taken account of and possibly even measured. 9. If the scientist succeeds in confirming his repeated observations it may be stated that an empirical law or rule of nature has been discovered. 10. Let us examine various types of such mispronunciations, remembering, of course, that they are mispronunciations only in the sense of being looked upon unfavorably by cultured speakers. 11. Social scientists and physical scientists, each group representing a diversity of specialized disciplines, were brought together to review some implications of the interaction between science and society. 12. The oceans and the atmosphere are strongly coupled systems and cannot very well be treated separately. The final circulation pattern is determined by the interaction of the two systems, each system influencing the other in a complicated cycle of events. 13. The meteorological working group concluded that meteorological research can be furthered by a trained meteorologist making observations from an orbiting station. 14. It is generally accepted that experiments in geology are far more difficult than in physics and chemistry because of the greater size of the objects and because of the geologic time scale exceeding the human time scale by a million and more times. 15. General scientific methods can be approached from a historical point of view by giving a brief account of the development of scientific concepts and theories. 16. Two types of scientific investigators may be distinguished: classicists and romanticists, the former being inclined to design schemes and to use the deductions from working hypotheses, the latter more fit for intuitive discoveries of functional relations between phenomena and, therefore, more able to open up new fields of study. 17.

With extended operation in space being a design goal, special attention was given to reliability problems. 18. The lack of interest of neurophysiologists in the macromolecular theory of memory can be accounted for by recognizing that the theory, whether true or false, is clearly premature.

Task 6. Read the text to yourself and be ready for a comprehension check-up.

PURE AND APPLIED SCIENCE

As students of science you are probably sometimes puzzled by the terms "pure" and "applied" science. Are these two totally different activities, having little or no interconnection? Let us begin by examining what is done by each. Pure science is primarily concerned with the development of theories (or, as they are frequently called, models) establishing relationships between the phenomena of the universe. When they are sufficiently validated these theories (hypotheses, models) become the working laws or principles of science. In carrying out this work, the pure scientist usually disregards its application to practical affairs, confining his attention to explanations of how and why events occur.

Exact science in its generally accepted sense can be referred to as a family of specialized natural sciences, each of them providing evidence and information about the different aspects of nature by somewhat different working methods. It follows that mathematics in its pure sense does not enter into this frame, its object of study, being not nature itself. Being independent of all observations of the outside world, it attempts to build logical systems based on axioms. In other words, it concentrates on formulating the language of mathematical symbols and equations which may be applied to the functional relations found in nature.

This "mathematization", in the opinion of most specialists, is witnessed first in physics which deals with general laws of matter and energy on subatomic, atomic and molecular levels. Further application

of these mathematical laws and studies is made by chemistry and results in structural bonds between the elements of matter being established.

Task 6.1. Check up for comprehension.

1. Does the author give definition of both "pure" and "applied" science? 2. Find the word which is used as an equivalent of "sciences". 3. When does a hypothesis become a principle of science? 4. What questions is the pure scientist concerned with? 5. Find the words equivalent to "how and why events occur". 6. What is usually disregarded by the pure scientist? 7. What is generally understood by exact science? 8. How does the author describe "specialized" natural sciences? 9. Why does mathematics not belong to this family? 10. What is the objective of mathematics? 11. Is there only one definition of the objective? 12. What does the application of mathematical laws in chemistry result in?

SCIENCE AND EDUCATION.

FUNDAMENTAL, APPLIED, AND PUBLIC RESEARCH.

Task 7. Read the text without consulting the dictionary. Divide the text into three parts and suggest a title for each one.

People are always talking about fundamental research, implying thereby the existence of a nameless opposite. A good definition of fundamental research will certainly be welcomed: let us see whether we can invent one. We have to begin, of course, by defining research. Unfortunately the concept of research contains a negative element. Research is searching without knowing what you are going to find: if you know what you are going to find you have already found it, and your activity is not research. Now, since the outcome of your research is unknown, how can you know whether it will be fundamental or not?

We may say for instance that fundamental research is that which you undertake without caring whether the results will be of practical value or not. It may not be reasonable to go further and say that fundamental research is that which will be abandoned as soon as it shows a

sign of leading to results of practical value. By saying this you may limit your own achievement. It will be better to say that fundamental research is that which may have no immediate practical value, but can be counted upon as leading to practical value sooner or later. The extension of knowledge and understanding of the world around us will always be profitable in the long run, if not in the short.

This is a very powerful argument for fundamental research and it is a completely unassailable one, and yet there are people who will not like it. Let us seek a definition that will give fundamental research a value of its own, not dependent upon other uses appearing soon or late. We say for instance that fundamental research is that which extends the theory. Now we have to theorize upon theory. There have been several viewpoints about theory. One is that theory discerns the underlying simplicity of the universe. The nontheorist sees a confused mass of phenomena; when he becomes a theorist they fuse into a simple and dignified structure. But some contemporary theories are so intricate that an increasing number of people prefer dealing with the confusion of the phenomena than with the confusion of theory.

A different idea suggests that theory enables one to calculate the result of an experiment in a shorter time than it takes to perform the experiment. I do not think that the definition is very pleasing to the theorists, for some problems are obviously solved more quickly by experimenters than by theorists. Another viewpoint is that theory serves to suggest new experiments. This is sound, but it makes the theorist the handman of the experimenter, and he may not like this auxiliary role. Still another viewpoint is that theory serves to discourage the waste of time on making useless experiments.

Let us try to flatter theory by giving it a definition that shall not describe it as a mere handmaid of experiment or a mere device for saving time. I suggest that theory is an intellectual instrument granting a deep and indescribable contentment to its designer and to its users. This instrument is made up of units which can be compared, for instance, to different branches of physics: solid state physics, relativity, acoustics, elementary particles and others, which sometimes have only a remote

relation with one another and may not even be interconnected at all. The rest of my talk will be devoted to a different question which is: how are we going to communicate to the layman some of our passion for our science? This is a very important question, for everyone is a layman until he becomes a scientist. If we can solve the problem of interesting the layman we may succeed in attracting the potential Fermis, Slaters, Lands and Fletchers of future into the field of, say, physics. Nothing could be more desirable.

A frequent technique is that of surprise. The trouble with this is that one cannot be surprised if one is not accustomed to the situation which is nullified by the surprise. Imagine, for example, a physicist trying to surprise an audience of laymen by telling them that there are a dozen elementary particles instead of two or three, or that the newest cyclotron imparts an energy of 500 mev to protons. It simply will not work, because the listeners will have no background to compare this information with. It is also a mistake to think that we can excite an audience by solving a mystery for them. The trouble here is that practically no one is interested in the answer to a question which he never thought of asking.

Relativity had a wonderful build-up in the decade before 1905, for the physicists of that era were acquainted with the sequence of experiments which were designed to show that the earth moves relatively to the ether and which obstinately showed the opposite. Each stage in the unfolding of quantum mechanics was exciting to the physicists who knew the earlier stages, because they knew the problems which were left unsolved. The writer of a detective story creates the mystery before he solves it; but the mystery usually begins with the discovery of a murdered man, and this is considerably more exciting than a murdered theory. The corresponding technique in physics consists in trying to create a particular state of out-of-dateness in the mind of the public, in the expectation of bringing them up-to-date at the end of the lecture or paper. There is too much risk of leaving the audience in the out-of-date condition, and this technique cannot be recommended. Another mistake, in my opinion at least, is that of stressing a paradox.

Try telling an audience that if you know the exact position of a particle you cannot know its momentum, and vice versa - the effect is unpredictable but obviously not what you wanted. Still another mistake is that of springing an isolated fact upon the audience. An isolated fact is not science and it is not interesting. Facts are of interest only as parts of a system. And we must strive to interest the layman in the system.

Task 7.1. Copy out the words equivalent to: весьма желательно иметь хорошее определение, предпринять, не задумываясь; ограничить возможные результаты своей деятельности; расширение знаний приносит пользу, образуют простую, но строгую систему; теории имеют настолько сложный и запутанный характер; вспомогательная функция; предотвращать потерю времени; приносящий глубокое удовлетворение.

Task 7.2. Give Russian equivalents of a nameless opposite; searching; outcome of your research; immediate practical value; research can be counted upon as leading; in the long run, if not in the short; a very powerful argument for.

Task 7.3. Give Russian equivalents of the underlying simplicity; the handman of the experimenter; a device for saving time; a remote relation.

Task 7.4. Concentrate on the opening question and the possible answers considered by the author. Make up a summary of the text in three sentences in Russian.

Task 8. VARIOUS FUNCTIONS OF INFINITIVE. INFINITIVE CONSTRUCTION.

Task 8.1. Identify the infinitives and give Russian equivalents of the relevant part of the sentence.

1. To make a choice between these two alternatives is not an easy task.
2. To be on the safe side, take special care of the accuracy of the calculation.
3. To foresee what the future will be like requires analysis of the past experience.
4. To tell the truth, the results have no direct bearing

on the problem under investigation. 5. To argue about it is not fruitful at the moment. 6. To establish cause-effect relationship between smoking and some diseases, extensive research is being carried on at several research centres. 7. To sum up, synthetic problems are studied for the possibilities which they hold for practical applications. 8. To put it another way, the experimental procedure must suit the purpose of the experiment. 9. To be able to forecast the future, we must begin by a thorough analysis of the past course of events.

Task 8.2. Give English equivalents of the italicized parts of the sentences.

1. *Для того чтобы соответствовать цели эксперимента, метод должен быть прост.* 2. *Установить причинно-следственные отношения* часто означает решить проблему. 3. *Предвидеть будущее невозможно* без анализа прошлого. 4. *Говоря по правде,* все ожидали совершенно других результатов. 5. *Сделать выбор* часто бывает самым трудным. 6. *Чтобы не рисковать,* проверьте аппаратуру перед экспериментом ещё раз.

Task 8.3. Identify the structures and give Russian equivalents of the relevant part of the sentence.

1. The analysis has been extended (so as) to take into consideration the unavoidable by-effects. 2. Two hydrogen atoms combine to form a hydrogen molecule. 3. Under this assumption the equation is reduced to yield a classical relation. 4. We do not expect to solve all these problems by the turn of the century. 5. The new substance readily reacts with alkali metals to give rise to alloys with predetermined characteristics. 6. At this stage a new theory was advanced to produce a revolutionary change in our understanding of the process.

Task 8.4. Identify the structures and give Russian equivalents of the relevant part of the sentence.

1. They claim to have accounted for the effect observed. 2. He admits to have made a similar mistake in his earlier publication. 3. He

was sorry to have occupied himself with the problem for so long, and not to have given it up earlier. 4. They admit to have been informed of this possibility before the experiment. 5. Mark Twain allegedly remarked once that a classic is something which nobody wants to read but everybody wants to have read. 6. To write with precision, it is necessary to have thought logically first.

Task 8.5. Identify the structure and give Russian equivalents of the relevant part of the sentence.

1. The aim was to discuss the impact of scientific activity on technology. 2. If we are to achieve the aim we must confine our attention to one point only. 3. Perhaps the greatest problem at present is to get some understanding of the remarkable phenomenon of memory. 4. The original idea was to take advantage of the high temperature of the process. 5. Glass which is to be used for lenses must be almost colourless. 6. The train is to reach its destination in 52 hours. 7. The joint programme of Soviet and foreign scientists on space research is to be discussed at the next COSPAR conference. 8. Many terrigenous bacteria which have become adapted to salt water are to be found close inshore.

Task 8.6. Give English equivalents of the italicized part of the sentences.

1. *Если мы хотим добиться цели,* мы должны принять во внимание все источники ошибок. 2. *Цель этой книги - дать обзор последних достижений в этой области исследования.* 3. *Наша задача заключается в том, чтобы обеспечить условия,* наиболее благоприятные для работы. 4. *Самое важное - это сосредоточить внимание* на одном вопросе. 5. *Нам предстоит подкрепить* эту интерпретацию новыми экспериментальными данными. 6. *Задача семинарских обсуждений заключается в том, чтобы предлагать* новые эксперименты.

Task 8.7. Identify the structures and give Russian equivalents of the relevant part of the sentence.

1. The consequences might be so disastrous as to exceed anything imaginable. 2. His story of the past is too personal to have any bearing on other people's experience. 3. The advantages of such an approach are evident enough to be taken for granted. 4. The experiment produced enough evidence to support the interpretation suggested. 5. The failure of the project was such as to discourage further efforts for many a year. 6. The information available was not sufficient to contribute to the clarification of the problem. 7. The assumption is reasonable enough to be valid.

Task 8.8. Translate into English.

1. Предположение было слишком неожиданным, чтобы его можно было принять без доказательств. 2. Идеи слишком опережают свое время, чтобы их можно было сразу же принять. 3. Аргументы представляются достаточно разумными, чтоб изменить ход обсуждения. 4. Данных было недостаточно, чтобы внести ясность в эту проблему. 5. Это предложение не так важно, чтобы его рассматривать на сегодняшнем заседании.

Task 8.9. Distinguish indefinite and perfect infinitives. Translate the sentences into Russian.

1. The history of the last 30 years shows him to have done very well. 2. We know him to have established a school of his own. 3. We do not expect him to throw away an opportunity like this. 4. We know him to have objected to this style of research on previous occasions. 5. They considered all water on the surface of this planet to have been liberated by volcanic action.

Task 8.10. Distinguish active and passive infinitives. Translate the sentences into Russian.

1. This allowed him to follow the rules. This allowed the rules to be followed. 2. This information enabled the scientist to make a forecast for the next few years. This information enabled forecasts for the next few years to be made. 3. This analysis permitted them to tackle the problem directly. This analysis permitted the problem to be tackled directly.

Task 8.11. Identify the structures and give Russian equivalents of the relevant part of the sentence.

1. What enabled the scientist to do so well with this disastrous situation? 2. They could not tolerate other people taking up the problem which they had been investigating for so long. 3. At that time the project, later to be taken over by another laboratory, was still in progress. 4. After a long discussion and argument they still could not agree as to what might be the best way to provide an atmosphere necessary for research. 5. He was always the first to take up a complicated problem and the last to give it up. 6. It is highly desirable to get these values checked before another series of experiments. 7. Instead of having astronomers watch the stars go around each other, why can we not take a ball of lead and a marble and watch the marble go toward the ball of lead? 8. The first section of each article will be devoted to a short summary of the history of the problem, to be followed by a review of the modern advance. 9. Philosophy is a distinct science with its own clearly defined subject matter to be studied in the same specific way as that of any other science. 10. On assuming the body with the mass M to be acted upon by force F , let us calculate acceleration. 11. Later we find Shakespeare using this style in prose dialogue; sometimes merely in caricature, but at other times quite seriously. 12. An important point to be dealt with in the next chapter is different techniques of data-processing. 13. It is sometimes very difficult to get people to agree upon most obvious things, although the things to be agreed upon may be generally accepted as urgent. 14. One can hardly expect a true scientist to keep within the limits of one narrow long-established field, leaving most fascinating problems to be found on the frontiers, out of the scope

of his inquiry. 15. Good management means getting things done rather than doing things. 16. This amounts to assuming the rate of our knowledge growth to depend on the amount of knowledge already accumulated. 17. It is time to pause at this stage of the story to have the reader realize its significance for the evolution of physical thinking. 18. At that time the scientist reported to have observed an unusual luminescence during his experiments with cathode tubes.

Task 8.12. Translate the following into English.

1. Большинство ученых ожидает, что в ближайшие годы молекулярная биология сделает новые успехи. 2. Мы не смогли заставить его согласиться на изменение условий эксперимента. 3. Ваш руководитель хочет, чтобы вы сосредоточили свое внимание на одной задаче. 4. Я не ожидаю, что он извлечет из этого урок. 5. Он всегда первый берется за такие проблемы. 6. Желательно, чтобы эти измерения были проверены до начала новой серии опытов. 7. Мы часто видим, как биологи заимствуют методы не только у физиков, но и у химиков. 8. Мне трудно об этом спорить. 2. Им важно подкрепить теорию дополнительными экспериментальными данными. 3. Физикам важно поддерживать контакт с биологами. 4. Ребенку необходимо учиться на собственном опыте. 5. Нам часто трудно угадать, каким будет будущее. 6. Естественно, что на такой анализ затрачивается около года. 7. Необходимо, чтобы реакция была ускорена. 8. Чтобы две молекулы вступили в реакцию, они должны столкнуться.

Task 8.13. Identify the structures and give the Russian equivalents.

1. Science is known to affect the lives of people. 2. Molecular biology is expected to dominate other sciences. 3. The results of these experiments are found to overlap. 4. The data are assumed to correlate with the present theory. 5. Some people seem to be disappointed in science. 6. He happens to work at the same problem. 7. The work is likely to contribute to the solution of the problem. 8. He is sure to argue

about it. 9. He is said to have graduated from Oxford University. He is said to avoid all sorts of arguments. 10. They seem to have taken advantage of the favorable conditions. He seems to mention the problem in the last chapter of his book. 11. He appeared to have lost interest in physics altogether. The story may appear to be oversimplified. 12. He is known to have established a school of his own. This scientist is known to be keeping in touch with the latest developments in his field of research. 13. He does not appear to be concerned with the problem. 14. He was not expected to spoil the sample. 15. The human body is not likely to tolerate such temperature. 16. He is not believed to represent the majority. 17. The idea does not seem to be remarkably advanced. 18. The discussion is not claimed to cover the whole range of present-day research.

Task 8.14. Identify the structures and give Russian equivalents of the relevant part of the sentence.

1. On such occasions the scientist was looked upon as representing the scientific community. 2. From this point of view the study can be regarded as contributing to fundamental knowledge. 3. Practically, the problem can be considered as given up. 4. The theory was counted upon as correlating with all the existing data. 5. He was deeply disappointed with the final results which turned out to be not what he had expected. 6. Some scientists occupy themselves primarily with problems likely to have direct bearing on the lives of people. 7. The data found to correlate with more than one interpretation, they attempted to approach the problem from a different viewpoint. 8. The scientist reported to have spent five years on the problem finally gave it up. 9. The danger of oversimplifying the problem seeming (to be) quite real, they changed the line of their attack. 10. By that time younger people thought to be brilliant physicists had left the laboratory.

Task 8.15. Identify the structures and give Russian equivalents of the relevant part of the sentence.

1. For scientific development to be of benefit for man, scientists must occupy themselves with problems that have direct bearing on our lives. 2. Molecular biologists are known to borrow their techniques from other sciences, mainly from physics. 3. How the application of his discovery will affect man is sometimes rather hard for the scientist to foresee. 4. The author devoted a special chapter of his book to what may be expected to dominate the science scene in the near future. 5. The method of inductive reasoning known to be established by Bacon leads from observation to general laws. 6. His idea was fruitful enough for others to take it up and develop it further. 7. For an original idea to be a product of one man's genius is quite natural. But for an idea to be transformed into a product, many people's effort is required. 8. Some people say that biology rather than physics is likely to be the central ground of scientific advance during the remainder of our century. 9. There appear no reasons for anybody to object to this style of research.

Task 9. Read the text to yourself and be ready for a comprehension check-up.

To speculate about the future is one of the most basic qualities of man. It involves two aspects: one is to forecast what the future development will be and the other is to determine in what approximate period of time it is going to take place. To make such a prognosis means to learn from the past experience and to extrapolate the knowledge into the future. Recently, however, the rate of change has been so great as to make it difficult to learn from experience, at least as far as the time factor is concerned. To take but one example, a prediction of man's possible landing on the Moon around the turn of the century was made as late as 1961, only 8 years before the actual event! So, to be on the safe side, we had better leave time to take care of itself, and concentrate our attention on what the future may be like. There is yet another problem involved: are we to accept submissively any possible course of events, or are we to work for a future most suited for most people? The choice is to be made, at different levels, by every individual and by every society.

What is the nature of the scientific attitude, the attitude of the man or woman who studies and applies physics, biology, chemistry or any other science? What are their special methods of thinking and acting? What qualities do we usually expect them to possess? To begin with, we expect a successful scientist to be full of curiosity - he wants to find out how and why the universe works. He usually directs his attention towards problems which have no satisfactory explanation, and his curiosity makes him look for the underlying relationships even if the data to be analysed are not apparently interrelated. He is a good observer, accurate, patient and objective. Furthermore, he is not only critical of the work of others, but also of his own, since he knows man to be the least reliable of scientific instruments.

And to conclude, he is to be highly imaginative since he often looks for data which are not only complex, but also incomplete.

Task 9.1. Check up for comprehension.

1. What are the two aspects of speculation about the future? 2. What are the two steps of any prognosis? 3. Why has it been so difficult recently to make any predictions concerning the future development? 4. What example is cited to illustrate the difficulty? 5. Does the author make any suggestions concerning this difficulty? Why does he suggest this? 6. What dilemma are we faced with and what choice is to be made by every individual and every society? 7. What are Russian equivalents of: before the actual event, leave time to take care of itself, what the future may be like? 8. What qualities do we expect to find in a successful scientist? 9. Why do we say that a successful scientist is full of curiosity? 10. Why is it difficult to see the underlying relationships? 11. Why is he critical of his own work? 12. Why is it necessary for him to be highly imaginative? 13. Give a Russian equivalent of the title and of the data analysed and the data to be analysed.

Task 10. Read the text.

INTRODUCTION A LETTER TO THE YOUTH

(by Academician I. P. Pavlov)

What would I wish for the youth of my fatherland who devote themselves to science? First of all, persistence. I can never speak without emotion of this most important condition for fruitful scientific work. Persistence, persistence, and yet again persistence. From the very beginning of your work train yourselves to be strictly systematic in amassing knowledge. Learn the ABC of science before attempting to ascend its heights. Never reach for the next step without having first mastered the preceding one.

Never attempt to cover up the gaps in your knowledge by even the most daring conjectures and hypotheses. No matter how the colorings of such soap-bubbles may please your eye, they will inevitably burst, leaving you with nothing but confusion. Train yourselves to discretion and patience. Learn to do the rough work in science. Study, compare, and accumulate facts.

No matter how perfect a bird's wing is it could never raise the bird aloft if it were not supported by air. Facts are the air of the scientist. Without them you will never be able to soar. Without them your "theories" are useless efforts. Yet, while studying, experimenting, observing, try not to stop only at the surface of facts. Do not become an archivist of facts. Try to penetrate the mystery of their origin. Seek persistently the laws governing them. Secondly, modesty. Never think that you already know everything. No matter in what high esteem you are held, always have the courage to say to yourself: «I am ignorant.» Don't allow yourself to be overcome by pride. Pride will make you stubborn where it is necessary to agree; it will make you reject useful advice and friendly assistance: you will lose your sense of objectivity. In the group which I am called to direct, atmosphere is everything. We are all harnessed to one common cause and everyone furthers it to the best of his strength and ability. Often we cannot distinguish between what is our own and what is our neighbors', but through this our common cause only gains.

Third - passion. Remember, science requires your whole life. Even if you had two lives to give, it would still not be enough. Science

demands of men effort and supreme passion. Be passionate in your work and in your quests. Our fatherland opens broad vistas to scientists, and we must truthfully say science is being generously introduced into the life of our country. Extremely generously. What is there to say about the position of a young scientist in our country? It is perfectly clear. To him is given much, but of him much is demanded. And it is a matter of honour for the youth, as well as for all of us, to justify those great hopes which our fatherland places in science.

Task 10.1. Answer the questions:

1. What is persistence? 2. What should you do to carry out some research work? 3. Facts are not the priority, aren't they? Why? 4. Does anyone know everything? 5. Why does pride have negative influence on people? 6. Is friendly atmosphere an "engine" for the research work? 7. Are you a patriot of your country? 8. What can you do for the republic's development?

Task 10.2. Problems:

1. Explain the statement that for your better education you need:
a) persistence;
b) training;
c) modesty;
d) passion.
2. Are there any other conditions under which you could become a well-trained engineer?
3. What is the relation between: a pupil – a student – a teacher – a scientist?
4. What do you know about I.P. Pavlov?

MODAL VERBS AND THE MESSAGE.

Task 11. Read the texts. Recognize modal verbs, and choose the proper Russian equivalents from the lists below.

If we are to fly to other planets we shall have to design a gigantic spacecraft. The conditions there must be as close to those of the Earth as possible so that we will not have to worry about all the usual hardships of space travel. The capability of man as a space researcher should be the subject of close examination. The problem of overload is to come first. Depending on its direction it is to be classified as longitudinal, transverse, or perpendicular. Next, the problem of weightlessness is to be considered.

Each spaceman must know the design of his own craft, and he must be able to maintain the systems during the flight. If some unforeseen situation develops he should know where to look for the breakdown, and should be able to remove its cause if the crew is to feel confident during the flight and experiments. Planets like the Earth must be quite common. A question arises: what sort of life might exist within our own solar system other than that on the Earth? It is possible that simple forms of life may exist on Mars. Most astronomers would agree that they are not to find any intelligent life on the other planets that circle our sun.

Intelligent life might exist on other worlds. If wonderful civilizations exist among the stars, it is only natural that human beings would want to visit them, or at least to communicate with them. But mankind may never be able to journey there to meet the inhabitants because of the enormous distances involved. No wonder the problem of intelligent life on other worlds should be so exciting!

Должно быть; не суждено; должна быть; возможно; могла бы; не исключено; не в состоянии; по-видимому; естественно.

Task 11.1. Read the beginning of the sentences, and translate them into Russian choosing the proper Russian equivalents of the modal verbs from the list below.

1. It has to be admitted that... 2. One can conclude that... 3. It will be remembered that... 4. It is to be stated that... 5. It should be stressed

that ... 6. One would expect that... 7. It must be borne in mind that... 8. One may think that...

можно, необходимо, естественно, есть основания, приходится, следует, нужно.

Task 11.2. Choose the proper Russian equivalents of modal verbs with negation from the list below.

1. The method is not to be recommended. 2. It may or may not be the case. 3. You must not criticise your ideas while inventing them. 4. They need not be counted. 5. One does not have to accept this viewpoint. 6. The fact cannot be denied. 7. The instrument should not be relied upon. 8. The calculation won't agree with the observation. 9. The theory might not be valid for these conditions.

Возможно и не; нельзя; необязательно; возможно не; не следует; упорно не (никак не); не надо; ничто не вынуждает; нет оснований.

Task 11.3. Use the proper verb basing on the arguments in brackets.

1. There... be a mistake in the calculation (because the author cannot think of any other explanation of the result obtained). 2. Any creature from an outer civilization appear alien to us (because this is the author's personal viewpoint). 3. There were no universities in Greece at all, there were schools. A philosopher have a school and a few men . .. come and listen to his lectures (because such was the tradition, the pattern of behaviour). 4. They knew that the project... be abandoned in a few months (because such was the decision taken or agreement made). 5. At that time it was not certain that the problem of overload ... be overcome at all (because it was not possible to produce necessary conditions). 6. A single good idea... sometimes give rise to a series of hypotheses (because there is a chance that this will be so). 7. Most scientists believe that to make contacts with outer intelligent beings man not leave the Earth (because there are other possible ways of making contacts than travelling). 8. As soon as these results were published the

theory ... be revised (because it could not account for the new effect observed).

Task 12. Read the text. Substitute the proper English modal verbs for the Russian words in brackets.

Those who wish to become students at the university (обязаны) take their entrance examinations. Recruitment of students to the university follows certain procedures which no one (разрешено) ignore. If a perspective student is ill and (не в состоянии) appear before the examination board he (надлежит) present a medical certificate to this effect, in which case the examination (приходится) be postponed. Another rule is that no student (не должен) be late for his examination. Also, students (не должны) argue with the examination board, although this is not a regular rule, but rather wise advice. However, whether they strictly observe the rules or not, there are always people who (могут) fail in their examinations and those who (обычно) succeed. This (всегда была и будет) be the situation at all times.

Task 12.1. Identify the modal verbs followed by perfect and non-perfect infinitive and give Russian equivalents of the predicates.

1. In the past the island must have been inhabited by some primitive tribe but now it has obviously been deserted. 2. The Moon, with its soft surface like damp sand, might have been designed for descending spacecraft. 3. Under such an assumption they ought to have arrived d completely different conclusions. At least they might have. 4. With our present-day technology such phenomena could not have been observed in the laboratory; what was registered must, in fact, have been due to some malfunctioning of the recorder. 5. It is difficult to figure out what actually happened. They may have changed their minds at the last moment and may have set out in a different direction. Or else, they might be repelled by the idea of loneliness, and could have made an attempt to return. 6. According to his hypothesis, individual men could have covered the distance between the two continents but would never

have risked to take their families along. 7. His idea was that these cosmic objects should have originated under such harsh conditions that no analogy might be valid.

Task 13. Read and translate the text without consulting a dictionary.

Useful words and word combinations:

to breed - разводить

dairy and beef cattle - молочный и мясной крупнорогатый скот

poultry - домашняя птица

livestock - скот

manure - навоз

fertility - плодородие

raw material - сырьё

to support - поддерживать

weeds, insects and diseases - сорняки, насекомые и

болезни exhaust pipe - выхлопная труба instant access -

постоянный доступ

to be engaged in - быть занятым чем-либо

to supply with - снабжать чем-либо

to impose taxes upon - налагать налоги на...

to depend on/upon - зависеть от...

to be based on/upon - основываться на...

to be going to do - собираться сделать что-либо

MODERN AGRICULTURE

If one looks at the basic structure of modern agriculture he/she is not likely (навряд ли) to find any dramatic changes in it. There are two main branches of agriculture - crop production and animal husbandry. Crop production is the practice of growing and harvesting crops. In order to obtain high yields crops are grown under favorable soil and climatic conditions. Animal husbandry is engaged in breeding of farm animals and their use. Dairy and beef cattle, hogs, sheep and poultry are highly important sources of food for man. They help to get such

nutritious products as meat, milk and eggs. Many crops grown by man are used for feeding livestock. At the same time manure produced by farm animals is an important source of the maintenance of soil fertility. Most of the nutrients, taken by plants are thus returned.

These two branches of agriculture are extremely important for national economy. It supplies people with food and clothing and industry with raw material. Countries like Japan, the USA and Canada support local farmers. They forbid the import of agricultural products from other countries and decrease the taxes imposed upon local farmers. Moreover, the state invests money into the intensification of agricultural production, which is based on mechanization, electrification and chemization. Preparation of soil, planting and harvesting crops, feeding farm animals and cleaning livestock buildings are mechanized. The use of chemical fertilizers increases crop yields and quality. Genetics helps much in the development of better high-yielding varieties of crops. Chemistry helps to control weeds, insects and diseases.

Transport a 1950's farmer through time and he would be flabbergasted (потрясён). Everything has changed even the language. Phrases like "groundwater protection" and "electric fire control" would leave the 50's farmer scratching his head. Back then "environmental protection" meant putting a tin can over the tractors exhaust pipe. If earlier farm families took more people to do the work, present families tend to be smaller today but they produce twice as much as their counterparts from the 50's. It's not difficult to notice that today's farms are not only bigger, but have instant access to information around the world and the latest technologies in agriculture. Computers help much with everything from soil analysis to financial planning and farming is going to change even more in the years to come.

Task 13.1. Answer the questions:

1. What is the basic structure of agriculture?
2. What are the two branches of agriculture engaged in?
3. How do the nutrients taken by the plants return into soil?
4. Is agriculture important for country's economy? Why?
5. What do the countries do to protect the farmers?

Give your own examples. 6. What agricultural processes are mechanized? 7. What do the present day farms and the 1950's farms differ in?

Task 14. Read the text and be ready for a comprehension check-up

Useful words and words combinations:

feature - черта

tool - инструмент

to proceed investigations - продолжать исследования

device - прибор

to till the soil - обрабатывать землю

to perform - выполнять, совершать

cultural practices - агротехнические приемы

growing season - вегетационный период

tractor powered- приводимый в движение трактором

self-propelled- самоходный

silage unloaders - машины для разгрузки силоса

threshing machine - молотильная машина

drill - рядовая сеялка

root crop - корнеплоды

root lifter- уборочная машина для корнеплодов

potato digger - картофелекопалка

grain grinder - зернодробилка

feed mixer - кормосмеситель

forage cutter - корморезка

years to come - грядущие года

implement - орудие труда

to do without - обходиться без чего-либо to

be powered by - приводиться в действие

to be equipped with - быть оборудованным чем-либо

to provide smb. with smth - обеспечивать кого-то чем-либо

Task 14.1. Check-up for a comprehension

- 1) Какие операции может совершать техника в растениеводстве?
- 2) Какие машины являются самоходными, а какие нет?
- 3) Машины, используемых при сборе урожая.
- 4) Техника, используемая в животноводстве.

III PART RESEARCH WORK

Structure of Research

Topic / Theme – Тема исследования

Relevance of the Topic (Motivation for the Study) – Актуальность темы исследования

Object of Research – Объект исследования

Subject of Research – Предмет исследования

Aims of Research – Цели исследования

Research Questions – Задачи исследования

Hypotheses of Research – Гипотезы исследования

Methods of Investigation – Методы исследования

Original Contribution – Новизна

Significance – Значимость

Implementations – Внедрения

Conclusions – Выводы

Useful Language

Topic / Theme of Research

<i>The theme of our investigation is ...</i>	<i>Темой нашего исследования является ...</i>
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<i>The theme of our exploration is devoted to ...</i>	<i>Тема нашего исследования посвящена ...</i>
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Relevance of the Topic (Motivation for the Study)

<i>The problem of ... is one of the most important.</i>	<i>Проблема ... одна из самых важных.</i>
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<i>The actual range of problems is much wider.</i>	<i>Реальный круг проблем гораздо шире.</i>
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<i>The problem of ... has not lost its topical significance.</i>	<i>Проблема не потеряла своей актуальности ...</i>
<i>The problem became more acute, it took a new form.</i>	<i>Проблема стала более острой, она приобрела новую форму.</i>
<i>The problem requires a detailed study.</i>	<i>Эта проблема требует детального изучения.</i>
<i>The question of ... has become acute.</i>	<i>Вопрос ... стал особенно актуальным.</i>
<i>The study of ... is of primary importance.</i>	<i>Изучение ... имеет первостепенное значение.</i>
<i>Much has been said and written about ...</i>	<i>Много было сказано и написано о ...</i>
<i>Much (little) has been done on ...</i>	<i>Много (мало) было сделано в ...</i>
<i>Much has been done in the field of ... but undoubtedly much remains to be done in it.</i>	<i>Много было сделано в области ..., однако, несомненно, многое еще предстоит сделать.</i>
<i>Although a number of issues have been analyzed and discussed much remains to be done in the field of ...</i>	<i>Несмотря на то, что ряд вопросов был проанализирован и обсужден, многое еще предстоит сделать в этой области ...</i>
<i>The problem has not received all the attention it deserves.</i>	<i>Проблема не получила должного внимания.</i>
<i>It was this ... which first attracted the notice of ...</i>	<i>Именно это впервые привлекло внимание ...</i>
<i>At present there is a growing interest in ...</i>	<i>В настоящее время наблюдается повышенный интерес к ...</i>
<i>The question still remains open.</i>	<i>Вопрос еще остается открытым.</i>
<i>No one has made a careful inquiry into ...</i>	<i>Никто не провел тщательного исследования в ...</i>
<i>Now the research focus has shifted towards ...</i>	<i>Сейчас исследовательский интерес направлен на ...</i>
<i>We possess a vague and general idea of ...</i>	<i>Мы имеем нечеткое и общее представление о ...</i>
<i>We are totally ignorant of ...</i>	<i>Мы совершенно ничего не знаем о ...</i>
<i>We know little (much) about ...</i>	<i>Мы мало (много) знаем о ...</i>
<i>The problem arises (is / was raised) in connection with ...</i>	<i>Эта проблема встает (ставится/ставилась) в связи с</i>

тем, что ...

Object of Research

<i>We will make a thorough study of ...</i>	<i>Мы подвергнем тщательному изучению ...</i>
<i>The object of our exploration is ...</i>	<i>Объектом исследования является ...</i>
<i>The following study is concerned with ...</i>	<i>Настоящее исследование посвящено ...</i>
<i>At the heart of the discussion is ...</i>	<i>В центре обсуждения находится ...</i>
<i>The study of ... raises several interesting problems of a general nature.</i>	<i>Изучение ... поднимает несколько интересных проблем общего характера.</i>
<i>It requires a detailed study of ...</i>	<i>Это требует детального изучения ...</i>
<i>It requires a direct study of ...</i>	<i>Это требует непосредственного изучения ...</i>
<i>In the connection with the study of various phenomena it is necessary to ...</i>	<i>В связи с изучением различных явлений необходимо ...</i>
<i>Therefore, in studying ... one must take into account ...</i>	<i>Следовательно, при изучении ... необходимо принять во внимание ...</i>
<i>This is achieved by a comprehensive study of ...</i>	<i>Это достигается путем всестороннего изучения ...</i>
<i>We will deal with ...</i>	<i>Мы рассмотрим ...</i>
<i>We will examine the (relations between ...)</i>	<i>Мы изучим (взаимосвязь ... с ...)</i>
<i>It would be instructive to examine in ... detail ... from the point of view of ...</i>	<i>Было бы полезно детально изучить ... с точки зрения ...</i>
<i>We will explore ...</i>	<i>Мы исследуем ...</i>
<i>We are occupied with the problem of ...</i>	<i>Мы занимаемся проблемой ...</i>

Subject of Research

<i>The topic of our investigation (exploration, work) is ...</i>	<i>Предметом нашего исследования является ...</i>
<i>It is one of the key problems of ...</i>	<i>Это одна из основных проблем...</i>

<i>The problem of ... is very complex.</i>	<i>Проблема ... является очень сложной.</i>
<i>The question is not free from difficulties ...</i>	<i>Вопрос не лишен сложности.</i>
<i>The topic of my dissertation is significant in interpreting ...</i>	<i>Тема моей диссертации существенна для понимания ...</i>
<i>The problem of ... is in the focus of attention of ...</i>	<i>Проблема ... находится в центре внимания...</i>
<i>The problem arises (is / was raised) in connection with ...</i>	<i>Эта проблема встает (ставится/ ставилась) в связи с тем, что ...</i>
<i>The problem of studying ... demands special care in using methods and a methodological concept.</i>	<i>Проблема изучения ... требует особого внимания к использованию методов и методологической концепции.</i>
<i>Here we need to consider the problem of ...</i>	<i>Здесь нам необходимо рассмотреть проблему ...</i>
<i>Thus the core of the problem is ...</i>	<i>Таким образом, суть проблемы заключается в ...</i>
<i>We turn our attention to a new and more urgent problem.</i>	<i>Мы обращаем наше внимание на новую и более насущную проблему.</i>
<i>In this light we must face the problem ...</i>	<i>С этой точки зрения мы должны рассмотреть проблему ...</i>
<i>Though many aspects of this problem are debated, it is sure that ...</i>	<i>Хотя многие аспекты проблемы остаются спорными, несомненно, что ...</i>
<i>To bring further light on various aspects it is necessary to ...</i>	<i>Для того, чтобы более глубоко осветить различные аспекты, необходимо ...</i>
<i>I will touch upon a question of ...</i>	<i>Я коснусь вопроса ...</i>
<i>The question is usually regarded as...</i>	<i>Вопрос обычно рассматривается как ...</i>
<i>Not long ago the question was raised in ...</i>	<i>Недавно вопрос был поднят в ...</i>
<i>The question raises all sorts of problems.</i>	<i>Этот вопрос поднимает разнообразные проблемы.</i>

Aims of Research

<i>The (main) aim of the paper is ...</i>	<i>(Основная) цель данной работы заключается в ...</i>
<i>To attain our aim we must consider ...</i>	<i>Для достижения цели мы должны рассмотреть ...</i>
<i>One of the chief aims was to test hypothesis ...</i>	<i>Одной из основных целей ... являлась проверка гипотезы ...</i>
<i>It is the main aim of this chapter to examine some of the main causes of ...</i>	<i>Задачей данной главы является изучение некоторых основных причин ...</i>
<i>At present we do not set the aim of...</i>	<i>В настоящее время мы не ставим цели ...</i>
<i>The overall goals of ... require a prior concern with the general problem of ...</i>	<i>Глобальные цели ... требуют предварительного рассмотрения основных проблем ...</i>
<i>In the framework of ... the first objective to achieve is ...</i>	<i>В рамках ... основной целью является ...</i>
<i>Our objective is the investigation of ...</i>	<i>Нашей целью является изучение ...</i>
<i>Our objective is to explain ...</i>	<i>Нашей задачей является объяснение ...</i>
<i>The purpose of our work is to examine and investigate and consequently to determine more precisely ...</i>	<i>Цель нашей работы состоит в том, чтобы изучить и исследовать и в результате более точно определить ...</i>
<i>For this purpose we may examine an example from ...</i>	<i>Для этой цели можно проанализировать пример из ...</i>
<i>It is our purpose on this occasion to analyze some of the basic issues ...</i>	<i>Нашей целью в данном случае является анализ основных вопросов ...</i>
<i>It is the purpose of this investigation to explain the principles of this viewpoint ...</i>	<i>Целью данного исследования является объяснение основных положений данной концепции ...</i>
<i>We are confined to immediate aims to ...</i>	<i>Наши непосредственные цели заключаются в ...</i>
<i>What we are aiming at is ...</i>	<i>То, к чему мы стремимся, заключается в ...</i>

Research Questions

<i>It has been no part of our aim to make a comprehensive survey of ...</i>	<i>В наши задачи не входило проведение глобального исследования ...</i>
<i>We are fully aware of the nature of the objective ...</i>	<i>Мы в полной мере понимаем специфику данной задачи ...</i>
<i>Our objective is the investigation of...</i>	<i>Задачей нашего исследования является ...</i>
<i>It is not the business of ...</i>	<i>Это не входит в задачи ...</i>
<i>It is not our purpose to describe ...</i>	<i>В нашу задачу не входит описание ...</i>
<i>It is beyond our present purpose to ...</i>	<i>В наши задачи не входит ...</i>
<i>Our task consists in ...</i>	<i>Наша задача состоит в том, чтобы ...</i>
<i>Our task is to show ...</i>	<i>Наша задача состоит в том, чтобы показать ...</i>
<i>Our task is to study ...</i>	<i>В нашу задачу входит изучение ...</i>
<i>The main task is as follows ...</i>	<i>Основная задача заключается в следующем ...</i>
<i>For carrying out this task it is necessary ...</i>	<i>Для осуществления этой задачи необходимо ...</i>
<i>We are confronted with a complicated task.</i>	<i>Перед нами стоит сложная задача.</i>
<i>The primary task is to study ...</i>	<i>Первоочередной задачей является изучение ...</i>
<i>The task requires considerable rethinking and revision ...</i>	<i>Эта задача требует переосмысления и пересмотра ...</i>
<i>The detailed (comprehensive, thorough, careful, profound) study of ... is of great importance.</i>	<i>Детальное (всестороннее, тщательное, глубокое) изучение ... имеет большое значение.</i>
<i>Nevertheless, it is important to observe ...</i>	<i>Тем не менее, важно изучить ...</i>
<i>Comprehensive study of ... is the key to solving our problems.</i>	<i>Всестороннее исследование ... имеет особое значение для решения поставленных проблем.</i>
<i>Within the framework of the paper it is impossible to ...</i>	<i>В рамках этой работы невозможно ...</i>
<i>One of the first tasks was to verify and if possible to amplify knowledge of ...</i>	<i>Одной из первостепенных задач являлась проверка и, по возможности расширение знаний о</i>

...

Hypotheses of Research

<i>It is necessary to accept the hypothesis ...</i>	<i>Необходимо принять гипотезу ...</i>
<i>One may put forward a working hypothesis for explaining this phenomenon ...</i>	<i>Можно выдвинуть рабочую гипотезу для объяснения этого явления ...</i>
<i>To take all possibilities into account, we are compelled to rule out the hypothesis that ...</i>	<i>Принимая во внимание все возможности, мы вынуждены выдвинуть гипотезу ...</i>
<i>We are to form a working hypothesis about ...</i>	<i>Мы должны сформулировать рабочую гипотезу о ...</i>
<i>It may be assumed like a working hypothesis.</i>	<i>Это можно принять в качестве рабочей гипотезы.</i>
<i>For confirmation of the hypothesis we need but turn to a brief consideration of ...</i>	<i>Для подтверждения гипотезы необходимо обратиться к краткому рассмотрению ...</i>
<i>These data confirm our hypothesis.</i>	<i>Эти данные подтверждают нашу гипотезу.</i>

Methods of Investigation

<i>There are different approaches to the solution of the problem.</i>	<i>Существуют разные подходы к решению этой проблемы.</i>
<i>This approach is aimed at ...</i>	<i>Этот метод направлен на ...</i>
<i>The usual approach was followed in ...</i>	<i>Традиционный метод использовался в ...</i>
<i>The most promising approach is ...</i>	<i>Наиболее перспективный метод состоит в том, чтобы ...</i>
<i>The approach used here is ...</i>	<i>Метод, используемый здесь, заключается в ...</i>
<i>An important way of approaching the matter is ...</i>	<i>Важный метод в разработке проблемы заключается в ...</i>
<i>This is a reasonable and practical approach ...</i>	<i>Это целесообразный и практический метод.</i>
<i>A modern approach to this problem of ... is based on (consists in ...) ...</i>	<i>Современный подход к проблеме ... основан (состоит в ...) ...</i>
<i>At the present time this research approach rests on ...</i>	<i>В настоящее время этот метод исследования основывается на ...</i>

<i>Such an approach to ... involves ...</i>	<i>Такой подход к ... требует ...</i>
<i>The subjective approach to the study of ... is ...</i>	<i>Субъективный подход к изучению ... заключается ...</i>
<i>The main difference in the approaches is that ...</i>	<i>Главное различие в подходах заключается в том, что ...</i>
<i>The approach taken by ... in ... is quite similar to ...</i>	<i>Метод исследования, принятый ..., идентичен ...</i>
<i>A different approach was taken by ...</i>	<i>Иной метод был использован ...</i>
<i>These approaches are different but ...</i>	<i>Эти подходы различны, но ...</i>
<i>The most common method for ... is ...</i>	<i>Самый распространенный метод ... состоит в ...</i>
<i>The method of research depends on ...</i>	<i>Метод исследования зависит от ...</i>
<i>A method of analogy will help to distinguish a few common features.</i>	<i>Сравнительный метод позволяет выделить общие черты ...</i>
<i>Before we can begin to use this method of analysis we have to deal with ...</i>	<i>Прежде чем мы начнем применять данный метод анализа, мы должны рассмотреть ...</i>
<i>Our work is being carried out in the following directions ...</i>	<i>Наша работа ведется в следующем направлении ...</i>
<i>These are a number of trends in studying ...</i>	<i>Существует ряд направлений в изучении ...</i>
<i>The simplest way of solving this problem lies in ...</i>	<i>Самый простой путь решения этой проблемы заключается в ...</i>
<i>This is one of the ways ...</i>	<i>Это один из способов ...</i>
<i>The methods of analysis are ...</i>	<i>Методами анализа являются ...</i>
<i>The analysis of ... is based on ...</i>	<i>Анализ ... основывается на ...</i>
<i>With regard to the old analysis we can state ...</i>	<i>Учитывая данные предыдущего анализа, можно утверждать, что ...</i>
<i>It requires a thorough analysis.</i>	<i>Это требует тщательного анализа.</i>
<i>At this level of analysis everything is seen as ...</i>	<i>На этом уровне анализа все рассматривается как ...</i>
<i>To analyze with precision we must turn to ...</i>	<i>Для того, чтобы провести точный анализ, мы должны обратиться к ...</i>
<i>Before we proceed with our analysis of ... it is essential to go over the</i>	<i>Прежде чем перейти к анализу ... необходимо изучить проблему ...</i>

<i>problem on ...</i>	
<i>The conventional approach to this problem is based on ...</i>	<i>Обычный подход к этой проблеме основан на ...</i>
<i>Our approach is to study ...</i>	<i>Наш метод заключается в изучении ...</i>
Original Contribution	
<i>It is the first attempt of the scientific approach to the problem of ...</i>	<i>Это является первой попыткой использования научного подхода к проблеме ...</i>
<i>he main features of our approach are ...</i>	<i>Основными направлениями нашего подхода являются ...</i>
<i>We have developed a new approach to the phenomena under consideration.</i>	<i>Мы разработали новый подход к рассматриваемым явлениям.</i>
<i>Our approach will make it possible to clear ... up.</i>	<i>Наш подход позволит разобраться в ...</i>
<i>We have succeeded in finding a convenient approach to ...</i>	<i>Нам удалось найти удобный подход к ...</i>
<i>We must approach the problem from viewpoint...</i>	<i>Мы должны подойти к проблеме с точки зрения ...</i>
<i>Such an approach has made it possible to understand the reasons for ...</i>	<i>Такой подход позволил понять причины ...</i>
<i>Our approach may be summarized in the words of ...</i>	<i>Наш подход можно изложить следующим образом ...</i>
<i>The method proposed in this article (investigation) is ...</i>	<i>Метод, предложенный в этой статье (исследовании) состоит в ...</i>
<i>The method of research provides a reasonably objective criterion ...</i>	<i>Такой метод исследования обеспечивает нас достаточно объективным критерием ...</i>
<i>It is in keeping with the methods adopted to solve the problems of ...</i>	<i>Это непосредственно связано с методами, разработанными для решения данной проблемы ...</i>
<i>The method is based on the idea that ...</i>	<i>Данный метод основывается на том, что ...</i>
<i>The method provides an answer to this problem ...</i>	<i>Этот метод дает возможность найти ответ на вопрос ...</i>

<i>The advantage of this method lies in the fact that ...</i>	<i>Преимущество этого метода состоит в том, что ...</i>
<i>This method has thrown light upon ...</i>	<i>Данный метод пролил свет на ...</i>
<i>We may adopt the method to ...</i>	<i>Мы можем применять данный метод к ...</i>
<i>The method is applicable to ...</i>	<i>Метод используется для ...</i>
<i>The application of the new method allows us to ...</i>	<i>Применение нового метода позволяет нам ...</i>
<i>This method can be applied to the study of ...</i>	<i>Этот метод можно применить для изучения ...</i>
<i>I am not suggesting that it is the only way ...</i>	<i>Я не считаю, что это единственный способ ...</i>
<i>There is nothing with which the analysis can be compared ...</i>	<i>Этот анализ не имеет аналогов ...</i>
Significance	
<i>The question of great practical importance deals with ...</i>	<i>Вопрос, имеющий большое практическое значение, заключается в ...</i>
<i>A special significance attaches to ...</i>	<i>Особое значение придается ...</i>
<i>What is significant is ...</i>	<i>Значительным является то, что ...</i>
<i>In fact it is the first work of general synthesis in which complex problems of ... are posed and given new answers ...</i>	<i>Действительно, это первая обобщающая работа, в которой поставлены сложные проблемы ... и даны новые ответы ...</i>
<i>The problem raised by ... assumed a place of first importance ...</i>	<i>Проблема поднятая ... приобрела первоочередное значение ...</i>
<i>What is important is ...</i>	<i>Важным является то, что ...</i>
Conclusions	
<i>A complex approach to the study of ... allowed me not only to analyze precisely the materials but to reach specific conclusions, based on the analysis...</i>	<i>Комплексный подход к изучению ... позволил мне не только тщательно проанализировать материал, но и на этой основе сделать выводы ...</i>
<i>We must conclude that ...</i>	<i>Подводя итог, отметим ... Необходимо сделать вывод о том, что ...</i>
<i>From this we can conclude ...</i>	<i>Из этого мы можем сделать вывод</i>

<i>All this allows us to conclude ...</i>	<i>Все это позволяет прийти к выводу</i>
<i>Having described ... we must conclude in general that ...</i>	<i>Описав ..., мы должны в общих чертах подвести итог (заклЮчить, что...)</i>
<i>Such are preliminary conclusions on</i>	<i>Таковы предварительные выводы о</i>
<i>The majority of researches incline to the conclusion that ...</i>	<i>Большинство исследователей склоняется к выводу ...</i>
<i>We thus arrived at the following conclusion ...</i>	<i>Таким образом, мы пришли к следующему выводу ...</i>
<i>On the basis of the work made we have come to the following conclusion ...</i>	<i>На основании проделанной работы мы пришли к следующему выводу ...</i>
<i>These facts give rise to important conclusions ...</i>	<i>Эти факты дают основание для важных выводов ...</i>
<i>A survey of ... led to the conclusion that ...</i>	<i>Обзор ... позволил сделать вывод, что ...</i>
<i>We, thus, arrive at the following observation ...</i>	<i>Таким образом, мы приходим к следующему выводу ...</i>
<i>Finally mention should be made of ...</i>	<i>В заключении следует упомянуть о</i>
<i>It has been the result of ...</i>	<i>Это явилось результатом ...</i>
<i>The result of ... is presented in ...</i>	<i>Результат ... представлен в ...</i>
<i>We would like to sum up the main points we made above ...</i>	<i>Мы бы хотели обобщить основные проблемы, о которых говорилось выше ...</i>
<i>Summing up the results of our research we would like to say ...</i>	<i>Подводя итоги нашему исследованию, мы хотели бы отметить ...</i>
<i>It could be summarized in the following way ...</i>	<i>Это можно обобщить следующим образом ...</i>
<i>The analysis is summarized in ...</i>	<i>Анализ суммирован в ...</i>
<i>We have made a brief survey of ...</i>	<i>Мы провели краткий обзор ...</i>
<i>An important result of ... was ...</i>	<i>Важным результатом ... явилось ...</i>
<i>The main result of ... was ...</i>	<i>Основным результатом ... явилось</i>
<i>The results of the work show that ...</i>	<i>Результаты работы показывают, что ...</i>
<i>Through an accurate analysis it has been possible to show that ...</i>	<i>Путем точного анализа удалось показать, что ...</i>

<i>The detailed analysis of the available facts show that ...</i>	<i>Детальный анализ имеющихся фактов показывает, что ...</i>
<i>It is derived from the analysis of ... that ...</i>	<i>Из анализа ... следует, что ...</i>
<i>I have stated the problem very briefly in the light of the research of ...</i>	<i>Я кратко изложил проблему в свете исследований ...</i>

Task 1. Speak about personal Qualities and professional Skills.

Think over a short report about professional skills and qualities needed for your (future) job.

Read the words below. Which of them are personal qualities and which are professional skills (experience obtained)?

Vision - проницательность, дальновидность,

judgement - рассудительность, energy - энергия,

determination - решительность, решимость,

consistency - последовательность,

постоянство, fairness - справедливость,

observation - наблюдательность,

confidence - уверенность,

communicational skills - навыки общения,

effort - усилие,

friendliness - дружелюбие,

self-respect - самоуважение,

self-awareness - самоанализ,

directness - непосредственность,

sociability - общительность,

organising ability - организаторские способности,

ruthlessness - жесткость,

diplomacy - дипломатичность,

reliability - надежность,

emotional (physical) stamina - эмоциональная (физическая)

выносливость,

maturity - зрелость,
 sense of humour - чувство юмора,
 flexibility - гибкость .

Task 2 Read the sentences. Mark the qualities you possess.

Vision: a person doesn't serve the long-term interests of the institution unless he plans, sets goals and provides strategic perception.

Judgement: success doesn't depend on immediate decisions, one should spend a lot of time collecting information and opinions before drawing conclusions.

For reaching one's objectives it is necessary to have effort, energy and stamina as this process is an exhausting activity physically, intellectually and emotionally.

Determination: it is an ability to bounce back from disappointment and keep on banging away at an idea.

Consistency and fairness: one's ability to inspire others very much depends on predictable attitudes, philosophies, loyalties and decision-taking methods.

Observation implies listening, watching and remembering the personalities, attitudes and concerns of those whom you work with.

Confidence is an ability not to show emotions when one feels insecure or diffident.

Communicational skills and sociability: one should communicate his decisions clearly and unequivocally as well as to work very closely with people to help them be creative.

Ruthlessness and diplomacy: the needs of the organization must always come first and it is important to act quickly and ruthlessly when necessary resolving conflicts between the requirements of the task and the resources available.

Friendliness and directness mean to be approachable, humane and show an interest in the lives of his staff using simple, direct and appropriate language.

Self-respect and self-awareness imply an ability to look at oneself objectively and analyse where some mistakes were made.

Task 3. Write down a composition: «Personal Qualities and Professional Skills Needed in the Field of My Scientific Work». My Scientific Thesis: Initiation of The Scientific Research.

Task 4. Read the text. Find English equivalents for the following Russian words and expressions:

эта диссертация отражает, работа над диссертацией началась, под руководством, в рамках исследований по проблеме, на кафедре (экономики) (Оксфордского) Университета, рабочее название, исходя из названия, представляла интерес для изучения, слабое изучение этой проблемы в настоящее время ... является достаточным основанием для изучения (является актуальным)

This Thesis reflects the final result of a four-and-a-half year's research project. The project was initiated in September 2007 under the supervision of Prof. Alting von Gesau in the framework of the research programme within the Department of Economics of Oxford University. The research project's point of departure was given by its first working title «Common Commercial Policy of the European Community with Regard to the Central and Eastern European Countries». Considering the title, two comments are called for.

A first comment concerns the choice of such a specific group of third countries. In this study I will deal only with the European member countries of COMECON (Council for Mutual Economic Assistance - CMEA). Because of the special way in which the community was forced to develop its bilateral external (commercial) relations. Mainly due to the countries mutual non-recognition of EC (European Community) and the centrally planned economic systems of these countries, this group of neighbouring «state-trading» countries constituted an interesting case study in the field of the evolutionary Common Commercial Community Policy. The currently still very modest extent of the bilateral commercial relations between the Central and Eastern European countries and both the EC as a whole and its individual member states respectively,

therefore constitutes ample evidence for the need for more appropriate commercial Community initiatives.

And secondly, the research project deals to a large extent with the competence concerned of only one of the three European Community organisations, i.e., the EEC (European Economic Community).

Task 5. Answer the questions:

1. What is the title of your thesis? 2. Is it a working title? 3. When was the project initiated? 4. Who is the scientific supervisor of the thesis? (Under whose supervision is the research being done?) 5. Does your study go in the framework of some research programme? 6. Does the currently modest extent of the problem of the thesis constitute ample evidence for the need of research? Why? 7. Will theoretical investigation influence practical experience in the sphere of your specialisation?

Task 6. Read the text «Higher Education in the United States». Find English equivalents for the following Russian words and expressions: выпускники, заявления, подавать заявление, аспирантура, завоевать репутацию,

Out of more than three million students who graduate from high school each year, about one million go on for higher education. A college at a leading university might receive applications from two percent of these high school graduates, and then accept only one out of every ten who apply. Successful applicants at such colleges are usually chosen on the basis of a) their high school records; b) recommendations from their high school teachers; c) their scores on the Scholastic Aptitude tests (SATs).

The system of higher education in the United States is complex. It comprises three categories of institutions: 1) the university, which may contain a) several colleges for undergraduate students seeking a bachelor's (four-year) degree and b) one or more graduate schools for those continuing in specialized studies beyond the bachelor's degree to obtain a master's or a doctoral degree; 2) the technical training

institutions at which high school graduates may take courses ranging from six months to four years in duration and learn a wide variety of technical skills, from hair styling through business accounting to computer programming; 3) the two-year, or community college, from which students may enter many professions or may transfer to four-year colleges.

Any of these institutions might be either private or public, depending on the source of its funding. Some universities and colleges have, over time, gained reputations for offering particularly challenging courses and for providing their students with a higher quality of education. The factors determining whether an institution is one of the best or one of the lower prestige are quality of teaching faculty; quality of research faculties; amount of funding available for libraries, special programs, etc. (Et cetera - и так далее); and the competence and number of applicants for admission, i.e. (id est - то есть) how selective the institution can be in choosing its students. The more desirable institutions are generally more costly to attend (as the IVY League institutions, including Brown University, Columbia College, Cornell University (College of Arts and Sciences), Dartmouth College, Harvard Radcliffe, Princeton University, University of Pennsylvania, Yale University) and having graduated from one of them brings distinct advantages as the individual seeks employment opportunities.

SAT is a test in mathematics and verbal ability. It is taken in the 11-th and 12-th grade of high school two or three times. SAT is preceded by PSAT (preparatory), a test to give a student a warm-up exercise for the SAT and indicate their probable SAT scoring range. ACT - the American College Testing program is similar to SAT but scores social studies and the natural studies. The test is taken once when required by certain colleges and universities. Both tests (SAT, ACT) are widely used in the admission process of US colleges and universities.

Task 7. Write down an essay «Higher Education in Russia».

Useful Information How to Write an Essay.

The ability to write well-organized, concise (сжатые, выразительные) essays is essential. The material must be presented in logical order and clear language. An essay consists of a number of paragraphs. Here are some hints on paragraph writing:

Your essay should be relevant to the set topic in both content and focus; the essay should be the result of wide reading, taking notes, sorting out information, theories and ideas, and coming to well-thought-out conclusions.

Essay paragraphs may be sorted into functional groups such as introductory, developmental, transitional, summarising.

In any paragraph there are introducers (which are sentences that establish the topic focus of the paragraph as a whole, the topic sentence in the paragraph contains a key idea); developers (which present examples or details of various kinds to support the ideas of the topic sentence); terminators or restatement sentences (which logically conclude the ideas discussed in the paragraph).

Depending upon the purpose or intent of the writer, particular paragraphs may be thought of aiming to persuade, inform, argue, or excite. Paragraphs may also be classified according to such techniques of development as comparison, contrast, description, classification, generalisation, etc.

Task 8. Write down an annotation of the article «British and American Universities» using the model and some expressions below:

This article deals with ...

It is pointed out ..

It is stressed that ...

It should be remembered that ...

British and American Universities

British and American Universities are similar in their pursuit of knowledge (в погоне за знаниями) as a goal but are quite different in their organisation and operation.

English universities and colleges because of their selective intake, are relatively small. American Universities, which combine a number of

different colleges and professional schools, are large, sometimes with 20,000 to 25,000 students on one campus (территория колледжа). Teacher training colleges and polytechnics are alternative to the university course for some students in Britain, being established for specific purposes. In contrast, virtually all schools of education, engineering and business studies, are integral parts of universities in the United States. In Britain universities receive about 70% of their financial support through Parliamentary grants. Similarly, in the US, public institutions receive about 75% of their funds from local, state and federal sources, but private colleges and universities receive little or no government support. In the UK, personal aid is provided by the government to over 80% of the students through local educational authorities according to the parents' income. In the US student's aid is administered by the university or the sponsoring agency and is provided by private organisations and the state or federal governments.

The structure of almost all British universities (except Oxford and Cambridge) is similar to Russian ones, with a central administration in the main building, various faculties, and within the faculties, various departments. Professors run the departments, deans rule the faculties, and at the top of the hierarchy is the Vice Chancellor, equivalent to your Rector. He or she has some kind of council to help govern the university.

Oxford and Cambridge, however, are quite different. You must imagine a federation of autonomous republics with a common foreign policy (dealing with the government and other universities) and with a common budget (money from the government and other national and international sources) and a set of common values (the teaching of undergraduates and graduates and the pursuit of scholarly research), which are at the same time fiercely independent «republics» with their own funds, their own students, their own projects and enthusiasm. Both the University and its colleges are very democratic institutions. Every member of the university is also a member of a college. The 3,200 senior members of the University (those engaged in teaching and research) vote for the Vice Chancellor, who is appointed for four years

only and cannot be reelected; they also vote for the two governing councils, for the faculty committees, the library committees, and the administration. At the same time, as «Fellows» (члены Совета) of their own college, they appoint new fellows, select students from the many who apply to enter the university, organise the finances and take on many practical responsibilities.

Task 9. Read the article «Academic Student Life in the US»

Academic Student Life in the US.

Academic year is usually nine month duration, or two semesters of 4 and a half months each. Classes usually begin in September and end in July. There are summer classes for those who want to improve the grades or take up additional courses.

During one term or semester, a student will study, simultaneously (одновременно), four or five different subjects. At the undergraduate level, there may be some courses that every student has to take (for example, classes in world history, math, writing or research). But students select their major plus a number of electives (факультативные курсы) (courses they do not have to take, but may choose). The students' progress is often assessed through quizzes (short oral or written tests), term papers and a final examination in each course. Typically, an undergraduate student has to earn a number of credits (about 120) in order to receive degree at the end of four years of college. Credits are earned by attending lectures (or lab classes) and by successfully completing assignments and examinations. One credit usually equals one hour of class per week in a single course. A three-credit course in biology could involve two hours of lectures plus one hour in a science lab every week. The course may last 10 to 16 weeks - the length of a semester. Any student may audit a course, that is to take up an extra course for personal interest without earning credits, it must be paid for on an hourly basis.

Each part of a student's work in a course is given a mark which helps to determine his final grade. A student record consists of his grade

in each course. College grades, determined by each instructor on the basis of class work and examinations, are usually on a five-point scale, with letters to indicate the levels of achievement. A - is the highest mark, indicating superior accomplishment (достижение), and the letters go through B, C, D to E or F which denotes failure. Many schools assign points for each grade (A=5, B=4, etc.) so that grade point average (3,5) is required to continue in school and to graduate.

Task 10. Work with the article given step by step:

Почитайте статью.

Определите цели публикации.

Выпишите ключевые предложения из каждого параграфа.

Составьте реферат статьи.

Сократите реферат до аннотации.

Task 11. Read and translate the patterns. Using them compose a dialogue about your thesis necessity.

I couldn't care less

Please yourself

What's the point?

I don't mind what you do.

Reacting: bad

Don't be so boring!

What a misery you are!

You're a pain in the neck!

That's typical of you!

The whole thing bores me to death

It doesn't matter to me

It's a bore, as far as I'm concerned

reacting: good

It's not as bad as all that, surely?

I'm surprised you feel that way about it.

Listen, if you look at it this way ...

Oh, come on, it's actually quite interesting

I see what you mean, but on the other hand...

Task 12. Speak about your thesis.

Consult any dictionary to find suitable English equivalents for the following Russian words and expressions: актуальность, методология,

методологические основы, гипотеза, цель диссертационного исследования, задачи исследования.

Continue the sentences according to the thesis of your own:

Проблема ... является актуальной для общества, так как ...

Проблема ... является актуальной с теоретической точки зрения, так как ...

Проблема ... является актуальной для практики, так как ...

Все возрастающая значимость проблемы..., практическая востребованность со стороны ...и неразработанность ее в науке обусловили тему нашего исследования и его проблему: (каковы содержания и условия ..., определяющие специфику процесса ...)

Объектом исследования являлся (процесс ...)

Предмет исследования представлял собой (пути его реализации на основе ...)

Цель исследования : (определить особенности процесса...)

Гипотеза исследования: (поскольку ..., то это позволяет предположить, что)

Задачи исследования: (определить сущность, структуру и дать характеристику процесса...) (выявит содержание, средства и способы оптимального ...) (раскрыть условия, способствующие высокой эффективности этого процесса)

Методологической основой исследования выступают (теории).

Task 13. Read the patterns. Using them compose a dialogue about your scientific research.

Asking permission

I thought I might ...

Alright if I ...

D'you mind if I...

Anyone mind if I ...

Would it be alright if I ...

I wonder if I could possibly ...

I hope you don't mind, but would it be at all possible for me to ...

OK

Yes, go ahead
 Yes, I suppose so
 Oh, well, all right
 refusing
 That's not a very good idea
 No, please don't
 I'd rather you didn't if you don't mind
 I'm sorry, but that's not possible

Task 14. Speak about thesis Structure.

Read the expressions given in the first column. Find a suitable Russian equivalent for every expression of the first column in the second one.

The first research efforts, which finally resulted (results, will result) in Chapter ..., were (are) directed towards the description of the content, concept and scope of ...	На следующем этапе будет детально описано как историческое развитие проблемы, так и ее состояние на сегодняшний день.
The derived concept of a potentially dynamic character of ... will serve thereby as the ultimate frame of reference.	... представляет особый случай, чему была (сейчас, будет) посвящена отдельная глава.
The next step would be to describe in detail both historical evolution and current state of ...	Принимая во внимание доказанное отсутствие ..., была (будет) предпринята осторожная попытка сформулировать некоторые рекомендации и предложить планы на будущее.
To arrive at such a surveyable description, the ... was (is, will be) divided into ... categories.	Глава ..., соответственно, посвящена общему историческому развитию ... относительно к ...
Accordingly, Chapter ... deals in detail with the general historic	Первые исследовательские шаги, которые в конечном итоге легли

evolution of ... with regard to ...	(ложатся, лягут) в основу Главы ..., (были) посвящены описанию содержания, концепции и задач исследования ...
... constituted (constitutes, will constitute) a special case, to which a separate chapter, Chapter ..., is devoted.	Чтобы добиться такого обзорного описания, было (сейчас, будет) необходимо разделить ... на две категории. В
In the concluding chapter ... will be evaluated.	Заключении будет оценен ...
Bearing in mind the established deficiencies of ..., a cautious attempt to formulate some recommendations and future prospects was (will be) undertaken.	Разработанная концепция проблемы, имеющая предположительно развивающийся характер, будет служить, таким образом, основным пунктом ссылок/отправной точкой исследования.

Task 15. Write down a composition «Thesis Structure».

Answer the questions:

1. What are the first research attempts directed to?
2. Will the derived concept serve as an ultimate frame of reference?
3. Have you already analysed the historical evolution of the problem?
4. The next step will be to describe in detail the current state of the problem, won't it?
5. Does any problem constitute a special case?
6. Will a separate chapter be devoted to that special case?
7. What will be evaluated in the concluding chapter?
8. Is it necessary to formulate some recommendations bearing in mind the established deficiencies?
9. Have you already thought of some future prospects based on the results of the Thesis?

Read the sentences below. Which sentences are more suitable for the concluding chapter?

The previously described historical evolution of the question clearly shows that...

Now we'll investigate...

A more detailed description of the specific contents of ... will form Chapter ...

... will be treated in detail in Chapter ...

In respect of ... we undertake an attempt to create some experimental model..

The overall impression of the question which came to the fore after theoretical investigation ... has indeed been strengthened by the findings of Chapter ...

In this Chapter I will first deal with the crucial observation of ...

... that will therefore be compared with ...

The next step in evaluation will then be an inquiry into the underlying reasons for ...

And to conclude, bearing in mind the established deficiencies of the current state of ..., a cautious attempt to formulate some recommendations will be undertaken...

Task 16. Write down a composition reflecting experimental research on the scientific problem of the Thesis.

Answer the questions:

1. What does historical evolution of the problem show?
2. In Chapter 2 experimental research will be treated, won't it?
3. Will you investigate the problem only from the theoretical point of view or with the help of experiment too?
4. Will you use some widely-spread experimental model?
5. Will you compare the results of the experiment with some other data?
6. You will make crucial observation of the Thesis in the concluding chapter, won't you?
7. Will you inquiry some underlying reasons for the results obtained?
8. Do you think there are many deficiencies of the problem?

9. What will you do after some deficiencies have been established?

МИНИСТЕРСТВО НАУКИ И ВЫСШЕГО ОБРАЗОВАНИЯ РОССИЙСКОЙ
ФЕДЕРАЦИИ
ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ АВТОНОМНОЕ ОБРАЗОВАТЕЛЬНОЕ
УЧРЕЖДЕНИЕ ВЫСШЕГО ОБРАЗОВАНИЯ
«СЕВЕРО-КАВКАЗСКИЙ ФЕДЕРАЛЬНЫЙ УНИВЕРСИТЕТ»

**ИНОСТРАННЫЙ ЯЗЫК В СФЕРЕ ПРОФЕССИОНАЛЬНОЙ
КОММУНИКАЦИИ**

**Методические указания для обучающихся по организации и
проведению самостоятельной работы**

Направление подготовки 03.04.02 Физика
Направленность (профиль)
«Биофизика и медицинская инженерия»

Квалификация выпускника: магистр

**Ставрополь
2026**

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Введение

Данные методические рекомендации к самостоятельной работе студентов разработаны на основе рабочей программы дисциплины «Социокультурная адаптация и интеграция в профессиональной сфере».

Целью СРС по дисциплине «Социокультурная адаптация и интеграция в профессиональной сфере» является формирование у студентов глубоких, прочных знаний, умений и навыков, позволяющих будущим специалистам анализировать специфику и способы социальной адаптации и межкультурной интеграции как фундамента социальной безопасности поликультурного региона; использовать эти знания в своей профессиональной деятельности для реализации стратегии формирования общегражданской идентичности, межкультурной коммуникации и инновационного управления в регионе.

Задачи СРС:

- развитие и привитие навыков самостоятельной учебной работы и формирование потребностей в самообразовании и социализации;
- формирование общенаучной методологической грамотности, предполагающей знание современных концептуальных подходов для анализа социальной адаптации и культурной интеграции личности;
- развитие этнологической грамотности, выражающейся в формировании готовности к расширению знаний об этнокультурных особенностях народов региона;
- формирование общенаучной информационной грамотности, состоящей в умении ориентироваться в потоке информации об этнокультурных процессах в стране и мире, навыки критического отношения к этой информации;
- формирование умения учитывать этнические особенности социокультурной среды в своей профессиональной деятельности;
- развитие социально-личностных знаний, умений и навыков,

состоящих в воспитании культуры продуктивного взаимодействия между членами поликультурного коллектива, анализировать и разрешать противоречия, препятствующие эффективности работы коллектива; чувства ответственности за принятые решения.

Общая характеристика самостоятельной работы студента при изучении дисциплины

Самостоятельная работа обучающихся (СРС) выражает одну из значимых форм образовательного процесса, которая способствует формированию творческой личности специалиста, способного к саморазвитию, самообразованию, инновационной деятельности.

Самостоятельная работа обучающихся содействует развитию умения учиться, формировать у студента способности к саморазвитию, творческому применению полученных знаний, способам адаптации к профессиональной деятельности в современном мире.

Самостоятельная работа обучающихся - это деятельность, связанная с воспитанием мышления будущего профессионала, всякий вид занятий, создающий условия для зарождения самостоятельной мысли, познавательной активности. Это совокупность всей самостоятельной деятельности студентов как в учебной аудитории, так и вне её, в контакте с преподавателем и в его отсутствии.

Самостоятельная работа реализуется:

- непосредственно в процессе аудиторных занятий - на лекциях, практических и семинарских занятиях;
- в контакте с преподавателем вне рамок расписания - на консультациях по учебным вопросам, в ходе творческих контактов, при ликвидации задолженностей, при выполнении индивидуальных заданий и т.д.;
- в библиотеке, дома, в общежитии, на кафедре при выполнении

студентом учебных и творческих задач.

Самостоятельная работа студентов может осуществляться как в аудитории, так и вне ее, обычно это в основном внеаудиторная деятельность студента. Для активного владения знаниями в процессе аудиторной работы необходимо не только понимание учебного материала, но и творческое его восприятие.

Основные формами реализации самостоятельной **работы и контроля** знаний являются:

Опорный конспект темы – письменный текст, в котором кратко и последовательно изложено содержание основного источника информации. Конспектировать — значит приводить к некоему порядку сведения, почерпнутые из оригинала. В основе процесса лежит систематизация прочитанного или услышанного. Записи могут делаться как в виде точных выдержек, цитат, так и в форме свободной подачи смысла.

Доклад (мультимедийный доклад) - форма контроля, нацеленная на проверку информационно-коммуникативных компетенций студента.

Семинар-дискуссия — форма учебной деятельности, позволяющая включить обучающихся в процесс обсуждения спорного вопроса, проблемы и оценить их умение аргументировать собственную точку зрения.

Собеседование – средство контроля, организованное как специальная беседа преподавателя со студентом на темы, связанные с изучаемой дисциплиной, и рассчитанное на выяснение объема знаний обучающегося по определенному разделу, теме, проблеме и т.п.

Текущий контроль осуществляется в процессе индивидуальных и групповых консультаций, собеседований, в процессе анализа и самоанализа самостоятельной работы.

План-график выполнения самостоятельной работы

№	Вид деятельности студентов	Итоговый продукт самостоятельной работы	Средства и технологии оценки	Время сдачи (неделя семестра)
1.	Изучение учебной и справочной литературы, текстов, интернет-ресурсов по теме 1: Business contacts Понятие о вербальном и невербальном аспектах этикета. Межкультурные особенности деловой коммуникации: вербальные нормы этикета и формулы речевого этикета, принятые при деловом знакомстве. Телефонные переговоры. Правила написания резюме	Конспект	Собеседование	1-2
2.	Изучение учебной и справочной литературы, текстов, интернет-ресурсов по теме 2: Companies Искусство задавать вопросы. Клише, речевые модели, фразеология и идиоматика, характерная для научного и научно-популярного стиля.	Конспект	Собеседование	4
3.	Изучение учебной и справочной литературы, философских текстов, интернет-ресурсов по теме 3: Corporate events Грамматические трудности перевода: подбор эквивалентов при переводе сложных грамматических конструкций (причастные и деепричастные обороты, сослагательное наклонение, согласование времен, сложноподчиненное предложение, инфинитивные обороты, особенности употребления модальных глаголов, пассивных конструкций, безличных конструкций и т.п.).	Конспект	Собеседование	6
4.	Изучение учебной и справочной литературы, философских текстов, интернет-ресурсов по теме 4: Projects	Конспект	Собеседование	8

	монолог-описание, монолог-сообщение (о выдающихся бизнес-деятелях, открытиях, событиях и т.д.); диалог-расспрос (об увиденном, прочитанном); диалог-обмен мнениями (по обозначенной проблематике).			
5.	Изучение учебной и справочной литературы, философских текстов, интернет-ресурсов по теме 5: Products -обосновать мотивы выбора темы доклада / профессии; -составить тезисы для презентации содержания проекта; -написать план своего выступления по материалам интернет-сайта.	Конспект	Собеседование	10
6.	Изучение учебной и справочной литературы, философских текстов, интернет-ресурсов по теме 6: Working abroad Написание тезисов / научной статьи, перевод ключевых слов и аннотации статьи на иностранный язык. Заполнение анкет (заявка на участие в конференции, анкета на получение визы).	Конспект	Собеседование	12
7.	Изучение учебной и справочной литературы, философских текстов, интернет-ресурсов по теме 7: Future possibilities Лексические трудности перевода: особенности перевода терминов, заимствования. Полисемия лексических единиц и проблема выбора лексического эквивалента при переводе. Синонимия и использование синонимов при переводе. Особенности транскрипции и транслитерации иностранных имен собственных.	Конспект	Собеседование	14
8.	Изучение учебной и справочной литературы, философских текстов, интернет-ресурсов по теме 8: glimpse at an office Описание функциональных обязанностей / квалификационных	Конспект	Собеседование	16

	требований); монолог-рассуждение по поводу перспектив карьерного роста / собеседование при приеме			
9.	Изучение учебной и справочной литературы, философских текстов, интернет-ресурсов по теме 9: Business correspondence Клише, речевые модели, фразеология и идиоматика, характерная для научного и научнопопулярного стиля.	Конспект	Собеседование	18
10.	Выполнение мультимедийного доклада (сообщения, эссе) по теме Design service marketing Изучение устойчивых словосочетаний и изученного лексического минимума; Активизация навыка говорения. Составление вопросов по профессиональной тематике. Диалоги.	Мультимедийный доклад (сообщение, эссе)	выступление	2-16

Методические рекомендации по изучению теоретического материала

Изучение любой темы плана-графика выполнения самостоятельной работы, следует начинать с ознакомления с вопросами плана изучения темы, приведенными в рабочей программе. Затем необходимо обратиться к списку литературы.

Осваивать теорию следует в соответствии с той последовательностью, которая дана в плане-графике выполнения самостоятельной работы.

Важной составляющей самостоятельной подготовки студентов является работа с литературой ко всем формам занятиям и видам работы: практическим, при выполнении контрольных работ, сообщений, проектов, участию в научных конференциях. Умение работать с литературой означает научиться осмысленно пользоваться источниками. Существует несколько методов работы с литературой.

Наиболее эффективным методом является ведение рабочих записей.

Форма записей может быть весьма разнообразной: простой или развернутый план-конспект, опорный конспект, тезисы, цитаты, конспект. Это позволит сделать знания системными, зафиксировать и закрепить их в памяти.

При составлении опорного конспекта следует придерживаться определенных правил:

- один конспект – один лист с опорным сигналом;
 - опорные сигналы должны со всей логической стройностью отражать развитие мысли минимальными графическими средствами;
 - структурирование опорных сигналов в логические блоки преследует основную цель – упростить процесс запоминания;
 - каждый блок – завершенная часть учебного раздела;
- записи на листах позволительно делать во всех направлениях, вплоть до слов перевертышей;
- использование мелких шрифтов и интервалов между блоками психологически упрощает работу с опорными сигналами, т.к. создает ощущение краткости и простоты материала;
 - при сокращении слов необходимо избегать возможных двусмысленных толкований этих слов и выражений;
 - озвучивание опорных сигналов должно становиться естественным продолжением всех предшествующих форм работы.

Выписки – небольшие фрагменты текста (неполные и полные предложения, отделы, абзацы, а также дословные и близкие к дословным записи об излагаемых в нем фактах), содержащие в себе квинтэссенцию (т.е. самое главное, самое важное, наиболее существенное) содержания прочитанного. Выписки представляют собой более сложную форму записи содержания исходного источника информации. По сути, выписки – не что иное, как цитаты, заимствованные из текста. Выписки позволяют в концентрированной форме и с максимальной точностью воспроизвести в

произвольном (чаще последовательном) порядке наиболее важные мысли автора. В отдельных случаях – когда это оправдано с точки зрения продолжения работы над текстом – вполне допустимо заменять цитирование изложением, близким дословному.

Тезисы – сжатое изложение содержания изученного материала в утвердительной (реже опровергающей) форме. Отличие тезисов от обычных выписок состоит в следующем: во-первых, тезисам присуща значительно более высокая степень концентрации материала; во-вторых, в тезисах отмечается преобладание выводов над общими рассуждениями; в-третьих, чаще всего тезисы записываются близко к оригинальному тексту, т.е. без использования прямого цитирования.

Аннотация - краткое изложение основного содержания исходного источника информации, дающее о нем обобщенное представление. К написанию аннотаций прибегают в тех случаях, когда подлинная ценность и пригодность исходного источника информации исполнителю письменной работы окончательно неясна, но в то же время о нем необходимо оставить краткую запись с обобщающей характеристикой. Для указанной цели и используется аннотация.

Резюме - краткая оценка изученного содержания исходного источника информации, полученная, прежде всего, на основе содержащихся в нем выводов. Резюме весьма сходно по своей сути с аннотацией. Однако, в отличие от последней, текст резюме концентрирует в себе данные не из основного содержания исходного источника информации, а из его заключительной части, прежде всего, выводов. Но, как и в случае с аннотацией, резюме излагается своими словами - выдержки из оригинального текста в нем практически не встречаются.

Конспект – сложная запись содержания исходного текста, включающая в себя заимствования (цитаты) наиболее примечательных мест

в сочетании с планом источника, а также сжатый анализ записанного материала и выводы по нему.

Работа с научной литературой – главная составная часть системы самостоятельной учебы студента, которая обеспечивает подлинное усвоение науки, дает прочный научный фундамент под всю будущую профессиональную работу. Понимание научной литературы всегда сложнее, чем учебно-методической. Одного чтения научной книги недостаточно, чтобы понять суть излагаемого. В таких случаях важна помощь преподаватель, который на лекциях, практических занятиях и консультациях формирует в сознании студента основные научные понятия.

Методика изучения научной литературы.

Читать научную литературу нужно по принципу: «идея, теория в одном, в другом, в третьем и т. д. источниках». Это значит, что научная идея, изложенная в одном источнике, может быть развита, уточнена, конкретизирована в другом, в третьем может быть подвергнута аргументированной критике, в четвертом вновь подтверждена более доказательно и т. п. И подтверждение, и опровержение научных выводов одинаково полезны для развития науки, а студенту – для понимания этого развития. Изучение проблемы по разным источникам – залог глубокого, подлинно профессионального усвоения науки.

Изучение научной литературы, являясь одним из элементов системы самостоятельной работы студентов, должно быть органически связано с другими ее элементами – с изучением лекционного материала, чтением учебника и последующими работами: написанием контрольной работы, сообщения, выполнением проектов.

Для контроля полученных знаний постарайтесь ответить на контрольные вопросы. Для более глубокого понимания, изучаемого этнологического аппарата следует воспользоваться общедоступными учебниками, перечень которых приведен в разделе «Основная

рекомендуемая литература». Книги раздела «Дополнительная литература» рекомендуются для расширения кругозора в области этнологии.

Критерии оценки:

Оценка «отлично» выставляется обучающемуся, если он демонстрирует **знание** категорий, направлений представителей западной и отечественной научной мысли; общенаучных и частнонаучных методов; концепций, категорий и методологии социального знания; **умение** формулировать научно-исследовательскую цель и выбор путей ее достижения; повышать свою квалификацию и мастерство, осознавать социальную значимость своей будущей профессии; использовать положения и методы социальной адаптации и интеграции при решении социальных и профессиональных задач; **владение** культурой мышления, обобщения, анализа, восприятия информации; саморазвития; высокой мотивацией к выполнению профессиональной деятельности.

Оценка «хорошо» выставляется обучающемуся, если обучающийся показывает **знание** основных категорий, направлений представителей мировой и отечественной научной мысли; основных общенаучных и частнонаучных методов; основ методологии науки; основных положений и методов в изучении социокультурной адаптации и интеграции; **умение** формулировать научно-исследовательскую цель и выбор путей ее достижения; повышать свою квалификацию и мастерство, осознавать социальную значимость своей будущей профессии; использовать основные положения и методы социокультурной адаптации и интеграции при решении социальных и профессиональных задач; **владение** культурой мышления, обобщения, анализа, восприятия информации; саморазвития; мотивацией к выполнению профессиональной деятельности.

Оценка «удовлетворительно» выставляется обучающемуся, если обучающийся демонстрирует **знание** основных категорий, направлений представителей мировой и отечественной научной мысли; основных положений и методов социокультурной адаптации и интеграции; **умение** использовать основные положения и методы дисциплины при решении социальных и профессиональных задач; **владение** культурой мышления, обобщения, анализа, восприятия информации.

Оценка «неудовлетворительно» выставляется обучающемуся, если обучающийся показывает **незнание** основных категорий, направлений представителей мировой и отечественной научной мысли; основных положений и методов социокультурной адаптации и интеграции, неумение использовать основные положения и методы дисциплины при решении социальных и профессиональных задач, отсутствием культуры мышления, способностью обобщения, анализа, восприятия информации.

Методические материалы, определяющие процедуры оценивания знаний, умений, навыков и (или) опыта деятельности, характеризующих этапы формирования компетенций

Процедура проведения данного оценочного мероприятия включает в себя ответы на вопросы, собеседование по ним. Каждый вопрос содержит формулировку базового и повышенного уровня сформированности компетенций (повышенный уровень выделен курсивом). Предлагаемые обучающемуся вопросы позволяют проверить уровни сформированности компетенций. Задания повышенного уровня требуют обращения к научным монографиям и статьям представителей российского и международного научного сообщества по актуальным проблемам интеграции и адаптации современности.

Для подготовки к данному оценочному мероприятию необходимо заранее освоить основные категории тем, ознакомиться с основными понятиями в области интеграции и адаптации.

При подготовке к ответу студенту можно пользоваться конспектом.

При проверке задания, оцениваются:

точность, полнота, системность, логичность;

знание основ православной культуры;

свободное владение материалом.

Оценочный		лист		обучающегося	
Ф.И.О., № гр.					
Оценка складывается как среднее арифметическое из четырех оценок: правильность ответа; умение приводить различные точки зрения на анализируемую проблему; умение приводить примеры; умение отвечать на дополнительные вопросы					
Оценка правильности ответа	Оценка умения приводить различные точки зрения на анализируемую проблему	Оценка умения приводить примеры	Оценка умения отвечать на дополнительные вопросы	Итоговая оценка	

Методические указания по видам работ

Опорный конспект темы – это развернутая наглядная конструкция темы, содержащая расположенные определенным образом правила, формулы, определения, графики, обозначения единицы измерения и ключевые слова.

Конспект (от лат. *conspectus* — обзор) — письменный текст, в котором кратко и последовательно изложено содержание основного источника информации. Конспектировать — значит приводить к некоему порядку сведения, почерпнутые из оригинала. В основе процесса лежит систематизация прочитанного или услышанного. Записи могут делаться как в виде точных выдержек, цитат, так и в форме свободной подачи смысла. Манера написания конспекта, как правило, близка к стилю первоисточника.

Если конспект составлен правильно, он должен отражать логику и смысловую связь записываемой информации. Им запросто можно воспользоваться через некоторое количество времени, а так же предоставить для применения кому-то еще, поскольку прочтение грамотно зафиксированных данных никогда не вызовет затруднений. «Умный» конспект помогает воспринимать информацию практически любой сложности, предварительно придавая ей понятный вид.

В процессе учебы или при решении какой-то задачи в общем объеме информации выделяют самое важное и необходимое, таким образом, упрощая овладение материалом. В хорошо сделанных записях можно с легкостью обнаружить специализированную терминологию, понятно растолкованную и четко выделенную для запоминания значений различных слов. Используя законспектированные сведения, легче создавать значимые творческие или научные работы, различные рефераты и статьи.

Виды конспектов

Нужно уметь различать конспекты и правильно использовать ту категорию, которая лучше всего подходит для выполняемой работы.

План-конспект. Такой вид изложения на бумаге создается на основе заранее составленного плана материала, состоит из определенного количества пунктов (с заголовками) и подпунктов. В процессе конспектирования каждый заголовок раскрывается — дополняется коротким текстом, в конечном итоге получается стройный план-конспект.

Именно такой вариант больше всего подходит для срочной подготовки к публичному выступлению или семинару. Естественно, чем последовательнее будет план (его пункты должны максимально раскрывать содержание), тем связаннее и полноценнее будет ваш доклад. Специалисты рекомендуют наполнять плановый конспект пометками, в которых будут указаны все используемые вами источники, так как со временем трудно восстановить их по памяти.

Схематический план. Эта разновидность конспекта выглядит так: все пункты плана представлены в виде вопросительных предложений, на которые нужно дать ответ. Изучая материал, вы вносите короткие пометки (2–3 предложения) под каждый пункт вопроса. Такой конспект отражает структуру и внутреннюю взаимосвязь всех сведений и способствует хорошему усвоению информации.

Текстуальный конспект. Подобная форма изложения насыщеннее других и составляется из отрывков и цитат самого источника. К текстуальному конспекту можно легко присоединить план, либо наполнить его различными тезисами и терминами. Он лучше всего подходит тем, кто изучает науку или литературу, где цитаты авторов всегда важны. Однако такой конспект составить непросто. Нужно уметь правильно отделять наиболее значимые цитаты таким образом, чтобы в итоге они дали представление о материале в целом.

Тематический конспект. Такой способ записи информации существенно отличается от других. Суть его — в освещении какого-нибудь определенного вопроса; при этом используется не один источник, а несколько. Содержание каждого материала не отражается, ведь цель не в этом. Тематический конспект помогает лучше других анализировать заданную тему, раскрывать поставленные вопросы и изучать их с разных сторон. Однако будьте готовы к тому, что придется переработать немало

литературы для полноты и целостности картины, только в этом случае изложение будет обладать всеми достоинствами.

Свободный. Этот вид конспекта предназначен для тех, кто умеет использовать сразу несколько способов работы с материалом. В нем может содержаться что угодно — выписки, цитаты, план и множество тезисов. Вам потребуется умение быстро и лаконично излагать собственную мысль, работать с планом, авторскими цитатами. Считается, что подобное фиксирование сведений является наиболее целостным и полновесным.

Техника составления конспекта

- Необходимо просмотреть материал, выявить особенности текста, его характер, понять, сложен ли он, содержит ли незнакомые термины;

- Снова прочитайте текст и тщательно проанализировать его. Такая работа с материалом даст возможность отделить главное от второстепенного, разделить информацию на составляющие части, расположить ее в нужном порядке.

- Обозначить основные мысли текста, они называются тезисами. Их можно записывать как угодно — цитатами (в случае, если нужно передать авторскую мысль) либо своим собственным способом.

При конспектировании лекций рекомендуется придерживаться следующих основных правил:

- Не начинать записывать материал с первых слов преподавателя, сначала необходимо выслушать его мысль до конца и постараться понять ее.

- Приступать к записи нужно в тот момент, когда преподаватель, заканчивая изложение одной мысли, начинает ее комментировать.

- В конспекте обязательно выделяются отдельные части. Необходимо разграничивать заголовки, подзаголовки, выводы, обособлять одну тему от другой. Выделение можно делать подчеркиванием, другим

цветом (только не следует превращать текст в пестрые картинки). Рекомендуется делать отступы для обозначения абзацев и пунктов плана, пробельные строки для отделения одной мысли от другой, нумерацию. Если определения, формулы, правила, законы в тексте можно сделать более заметными, их заключают в рамку.

- Записи нужно создавать с использованием принятых условных обозначений. Конспектируя, обязательно необходимо употреблять разнообразные знаки (их называют сигнальными). Это могут быть указатели и направляющие стрелки, восклицательные и вопросительные знаки, сочетания PS (послесловие) и NB (обратить внимание). Например, слово «следовательно» вы можете обозначить математической стрелкой $\Rightarrow$. Когда выработается свой собственный знаковый набор, создавать конспект, а после и изучать его будет проще и быстрее.

- Не нужно забывать об аббревиатурах (сокращенных словах), знаках равенства и неравенства, больше и меньше.

- Большую пользу для создания правильного конспекта дают сокращения. Однако знатоки считают, что сокращение типа «д-ть» (думать) и подобные им использовать не следует, так как впоследствии большое количество времени уходит на расшифровку, а ведь чтение конспекта не должно прерываться посторонними действиями и размышлениями. Лучше всего разработать собственную систему сокращений и обозначать ими во всех записях одни и те же слова (и не что иное). Например, сокращение «г-ть» будет всегда и везде словом «говорить», а большая буква «Р» — словом «работа».

- Бесспорно, организовать хороший конспект помогут иностранные слова. Наиболее применяемые среди них — английские. Например, сокращенное «ок» успешно обозначает слова «отлично», «замечательно», «хорошо».

- Нужно избегать сложных и длинных рассуждений.

- При конспектировании лучше пользоваться повествовательными предложениями, избегать самостоятельных вопросов. Вопросы уместны на полях конспекта.

- Не нужно стараться зафиксировать материал дословно, при этом часто теряется главная мысль, к тому же такую запись трудно вести. Второстепенные слова нужно отбрасывать, без которых главная мысль не теряется.

- Если в лекции встречаются непонятные термины, можно оставить место, а после занятий уточнить их значение у преподавателя.

- Изучив все подробности правильного конспектирования, можно научиться не только легко и результативно трудиться на лекциях или курсах, но стать делать это с удовольствием. Это большое наслаждение — познать те истины, которые доселе казались недоступными.

При проверке задания, оцениваются:

- владение материалом;
- умение четко и логично излагать свои мысли, творчески подходить к решению основных вопросов темы;
- самостоятельность мышления.

Доклад (мультимедийный доклад, творческий проект) - форма контроля, нацеленная на проверку информационно-коммуникативных компетенций студента.

Процедура проведения этой формы учебной деятельности включает в себя:

- знакомство обучающегося с темами докладов
- подбор и анализ литературы по теме доклада
- создание мультимедийной презентации доклада
- подготовка к выступлению с докладом на занятии
- выступление с докладом
- оценка содержания доклада студентами и преподавателем.

Темы докладов повышенного уровня дают возможность обучающимся самостоятельно провести расширенный анализ проблемы с использованием научной и иной литературы по теме, сделать выводы, обобщающие как научные взгляды, так и авторскую позицию по проблеме. Базовый уровень нацелен на изложение имеющихся научных исследований по теме доклада.

Для подготовки к данному оценочному мероприятию необходимо проанализировать предложенную тему доклада, подобрать литературу, продумать содержание, оформить доклад. При проверке задания, оцениваются:

- соответствие содержания теме доклада
- соответствие требованиям к структуре доклада и объему
- самостоятельность выполнения
- обоснованность, четкость, лаконичность ответа по теме доклада
- уровень освоения темы и изложения материала - правильность (уместность и достаточность) используемой информации
- научность и самостоятельность устного и письменного изложения доклада.

При подготовке тематической презентации следует помнить, что существуют требования к созданию и предъявлению слайдов. Слайды в презентации должны быть простыми и не содержать более чем семь строчек текста в каждом. Перегрузка текстом приводит к тому, что слайды становятся трудночитаемыми, особенно для тех, кто сидит далеко: это вызывает у людей разочарование и антипатию к лектору или его выступлению.

1. Требования к тексту

- не пишите длинно;
- разбивайте текстовую информацию на слайды;
- используйте заголовки и подзаголовки;
- для повышения удобочитаемости используйте: форматирование, списки, подбор шрифтов.

2. Требования к фону

Рекомендуется использовать:

- синий на белом,
- черный на желтом,
- зеленый на белом,
- черный на белом,
- белый на синем,
- зеленый на красном,
- красный на желтом,
- красный на белом,
- оранжевый на черном,
- черный на красном,
- оранжевый на белом,
- красный на зеленом.

3. Требования к иллюстрациям

- Чем абстрактнее материал, тем действеннее иллюстрация.
- Что можно изобразить, лучше не описывать словами.
- Изображать то, что трудно или невозможно описать словами.
- Используйте **анимацию**, как одно из эффективных средств

привлечения внимания пользователя и управления им.

- Используйте **видеоинформацию**, позволяющую в динамике демонстрировать информацию в режиме реального времени, что недоступно при традиционном обучении.

- Помните, что видеоинформация требует больших затрат вычислительных ресурсов и значительных затрат на доставку и воспроизведение изображения.

4. Требования к звуку

- Избыток звука недопустим, т.к. может раздражать обучаемого.

- Наилучший результат достигается при использовании коротких озвученных текстов, усиливающих ключевые моменты курса.
- Одновременное наличие речевого сопровождения и читаемого текста на экране, как правило, воспринимается негативно. Большинство обучаемых читают текст гораздо быстрее, чем говорит диктор, что быстро начинает раздражать.
- Наличие длинных текстов, которые читаются диктором не дословно, с различными вариациями, очень сильно отвлекает обучаемого от собственно темы обучения на поиск несоответствий, что крайне вредно для процесса обучения.
- Использование текстов, произносимых от первого или второго лица, в значительной степени способствует вовлечению обучаемого в процесс.
- Если есть возможность использовать в курсе виртуальных персонажей (агентов), способных «общаться» с обучаемым от первого лица, то эффективность восприятия темы значительно возрастает.

Критерии оценки презентации

1. Содержательный критерий:

правильный выбор темы, знание предмета и свободное владение текстом, импровизация, речевой этикет.

2. Логический критерий:

стройное логико-композиционное построение речи, доказательность, аргументированность.

3. Речевой критерий:

использование языковых (метафоры, фразеологизмы, пословицы, поговорки и т.д.) и

неязыковых (поза, манеры и пр.) средств выразительности; фонетическая организация речи,

правильность ударения, четкая дикция, логические ударения и пр.

4. Психологический критерий:

взаимодействие с аудиторией (прямая и обратная связь), знание и учет законов

восприятия речи, использование различных приемов привлечения и активизации внимания.

5. Критерий соблюдения дизайн-эргономических требований к компьютерной

презентации:

соблюдены требования к первому и последним слайдам, прослеживается

обоснованная последовательность слайдов и информация на слайдах, необходимое и

достаточное количество фото- и видеоматериалов, учет особенностей восприятия

графической (иллюстративной) информации, корректное сочетание фона и графики, дизайн

презентации не противоречит ее содержанию, грамотное соотнесение устного выступления

и компьютерного сопровождения, общее впечатление от мультимедийной презентации.

Эссе - средство, позволяющее оценить умение обучающимся письменно излагать суть поставленной проблемы, самостоятельно проводить анализ этой проблемы с использованием концепций и аналитического инструментария соответствующей дисциплины, умение объяснять существование альтернативных точек зрения, выявлять их достоинства и аргументировать недостатки, делать выводы, обобщающие авторскую позицию по поставленной проблеме.

Объем эссе – от 3-х до 10 страниц печатного текста. Листы должны быть пронумерованы и скреплены вместе. Гарнитура шрифта –

TimesNewRoman. Размер шрифта– 14 кегль. Параметры страницы: верхнее и нижнее поле – 2 см, правое – 3,5 см, левое – 1,5 см; абзац – 1,25 см. Межстрочный интервал – 1,5. Выравнивание текста производится по ширине страницы. Нумерация страниц проставляется в правом нижнем углу. Титульный лист эссе оформляется в соответствии с установленным стандартом.

Семинар-дискуссия — форма учебной деятельности, позволяющая включить обучающихся в процесс обсуждения спорного вопроса, проблемы и оценить их умение аргументировать собственную точку зрения, предполагающая всестороннее обсуждение какого-либо вопроса, проблемы или сопоставлении информации, идей, мнений, предложений.

Процедура подготовки к семинару-дискуссии включает изучение научной и учебной литературы, составление тезисов. Оцениваются умение обобщать, сопоставлять различные точки зрения по рассматриваемой проблеме, последовательно, четко и логически стройно излагать свою позицию, аргументировать основные положения и выводы, использовать научную литературу.

Собеседование представляет собой индивидуальную беседу с каждым студентом по предложенным вопросам с последующей оценкой их подготовки. Целью данной формы занятия является осуществление текущего контроля знаний по теме. В задачи собеседования входит приобретение навыка работы с источниками и литературой; умения грамотно составлять конспекты и пользоваться ими; выявлять различные точки зрения на проблему и степень ее разработанности в научной литературе. Собеседование предполагает обязательное конспектирование текста или раздела монографии по выбору студента, а также проработку всей предложенной литературы по теме.