Часть 3. Чтение

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Чтение – особый вид речевой деятельности, это процесс одновреженного восприятия и понимания письменного текста. Это глубоко внутренний процесс, состоящий в интерпретации текста, которая подразумевает словесное, предметное и смысловое понимание.

Для чтения нужна активная, пассивная лексика и потенциальный словарь.

В зависимости от коммуникативных задач, которые ставит перед собой читающий, и соответствующих им приемов чтение делится на изучающее, ознакомительное, просмотровое, поисковое.

1. Изучающее – это чтение со стопроцентным пониманием информации, детальное чтение, которое может сопровождаться записями и рассчитано на использование в последующей деятельности информации, полученной из текста.

2. Ознакомительное – это чтение с общим охватом содержания, при котором внимание уделяется только главной информации.

3. Просмотровое – это беглый просмотр текста, при котором отмечается интересная/ неинтересная, ценная/ ненужная информация.

4. Поисковое – поиск определенной информации.

A MIXED ECONOMY

1. The United States is said to have a mixed economy because privately owned businesses and government both play important roles. Some of the most enduring debates of American economic history focus on the relative roles of the public and private sectors.

2. The American free enterprise system emphasizes private ownership. Private businesses produce most goods and services, and almost two-thirds of the nation's total economic output goes to individuals for personal use (the remaining one-third is bought by government and business). The consumer role is so great that the nation is sometimes characterized as having a "consumer economy".

3. This emphasis on private ownership arises, in part, from American beliefs about personal freedom. From the time the nation was created, Americans have feared excessive government power, and they have sought to limit government's authority over individuals - including its role in the economic realm. Americans generally believe that an economy characterized by private ownership is likely to operate more efficiently than one with substantial government ownership.

4. When economic forces are not regulated, Americans believe supply and demand determine the prices of goods and services. Prices tell businesses what to produce; if people want more of a particular good the price of the good rises. That catches the attention of new or other companies that, sensing an opportuni-
ty to earn profits, start producing more of that good. If people want less of the good, prices fall and less competitive producers either go out of business or start producing different goods. Such a system is called a market economy. A socialist economy is characterized by more government ownership and central planning. Most Americans are convinced that socialist economies are less efficient because government, which relies on tax revenues, is far less likely than private businesses to take note of price signals or to feel the discipline imposed by market forces.

1. The US Government has always tried to restrict private ownership

2. Socialist economies proved to be ineffective all over the world

3. The role of consumers is extremely important for American economy

4. In the USA most goods and services are produced by privately owned enterprises

5. Personal freedom and free enterprise system are inseparable

6. A socialist economy is not so effective as a market economy.

7. The role of the market in a mixed economy.

- A socialist economy versus capitalist economy.
- American system of supply and demand.
- American economic history.

GLOBAL POSITIONING SYSTEM

1. The Global Positioning System (GPS) is currently the only fully functional Global Navigation Satellite System (GNSS). Utilizing a constellation of at least 24 medium Earth orbit satellites that transmit precise microwave signals, the system enables a GPS receiver to determine its location, speed and direction.

2. GPS has become a widely used aid to navigation worldwide, and a useful tool for map-making, land surveying, commerce, and scientific uses. GPS also pro-
vides a precise time reference used in many applications including scientific study of earthquakes, and synchronization of telecommunications networks.

3. A GPS receiver calculates its position by measuring the distance between itself and three or more GPS satellites. Measuring the time delay between transmission and reception of each GPS microwave signal gives the distance to each satellite, since the signal travels at a known speed. The signals also carry information about the satellites' location. By determining the position of, and distance to, at least three satellites, the receiver can compute its position using trilateration. Receivers typically do not have perfectly accurate clocks and therefore track one or more additional satellites to correct the receiver's clock error.

4. The current GPS consists of three major segments. These are the space segment (SS), a control segment (CS), and a user segment (US). The space segment (SS) is composed of the orbiting GPS satellites, or Space Vehicles (SV). The GPS design calls for 24 SVs to be distributed equally among six circular orbital planes. The GPS receiver is the user segment (US) of the GPS system. In general, GPS receivers are composed of an antenna, receiver-processors, and a highly-stable clock. They may also include a display. A receiver is often described by its number of channels. Currently the receivers have between twelve and twenty channels.

1. Определите, является ли утверждение:

Currently GPS receivers have four or five channels

истинным; ложным; в тексте нет информации.

2. Определите, является ли утверждение:

Many GPS receivers can relay position data to a PC device

истинным; ложным; в тексте нет информации.

3. Определите, является ли утверждение:

The receivers have perfectly accurate clocks as a rule

истинным; ложным; в тексте нет информации.

4. Укажите, какой части текста (1, 2, 3, 4) соответствует следующая информация:

Three major segments of the current GPS are available.

4; 3; 1; 2.

5. Укажите, какой части текста (1, 2, 3, 4) соответствует следующая информация:

GPS has significant application.

2; 4; 3; 1.

6. Ответьте на вопрос:

What typical elements are GPS receivers composed of?

- GPS receivers are composed of a generator, an amplifier and a decoder.
- A typical GPS receiver is based on SiRF Star III chipset.
- GPS receivers include a display and an input for differential corrections.
- Generally GPS receivers consist of an antenna, receiver processors and a highly-stable clock.

- New advances in technology led to the effort to modernize GPS systems.
- The current GPS provides additional navigational information.
- GPS transmits information about sources of errors.
- GPS is considered a dual-use technology having significant applications.

**PRIVATIZATION AND THE STATE**

1. Until the mid-1970s the proportion of economic activity controlled by the government and the share of taxes in national income tended to increase in most countries. Since then challenges to this growth in the role of government have become increasingly influential, and moves to privatization have been common.  
2. There are several types of privatization. One involves the sale to private owners of state-owned assets, and this is most correctly called privatization. Publicly owned houses may be sold to their occupants. Commodity stockpiles may be reduced or disbanded. Increasingly attention has been turned to the sale of publicly owned industries, thus reversing the move to nationalization that occurred around and after World War II.  
3. Where the privatized industry operates in a competitive environment, no new problems arise. Where privatization occurs but monopoly continues, there are new difficulties. Both Japan and the United Kingdom have privatized their telecommunications networks. Although, in certain limited areas of telecommunications, competition is possible - and has been allowed to develop in both the United States and Britain - technical and legal restrictions inhibit competition in many sectors of the industry.  
4. Regulation is necessary to restrict the freedom of privatized monopolies, or near monopolies, to raise prices and to exploit consumers in other ways. In the United States, which has by far the longest history of regulating private utilities, such regulation has normally limited the rate of return that they earn to what is considered a fair level. A disadvantage of this is that it may give the industry no greater incentive to increased efficiency than would exist in public ownership, since higher costs can be passed directly onto consumers. There have been experiments with other forms of regulation, which seek to strike a balance between incentives for better performance and the ability to exploit consumers. Competitive environment causes no new problems for the privatized industry.

1. Определите, является ли утверждение:  
   **Regulation restricts the efficiency of privatized monopolies and brings about price race**  
   истинным; ложным; в тексте нет информации.
2. Определите, является ли утверждение:

*Competitive environment causes no new problems for the privatized industry*

истинным; ложным; в тексте нет информации.

3. Определите, является ли утверждение:

*Technical and legal restrictions slow down competition in many industries*

истинным; ложным; в тексте нет информации.

4. Определите, является ли утверждение:

*In most European countries telecommunications networks are state-owned*

истинным; ложным; в тексте нет информации.

5. Укажите, какой части текста (1, 2, 3, 4) соответствует следующая информация:

*The end of the 20th century was marked by the process of privatization.*

3; 4; 2; 1.

6. Укажите, какой части текста (1, 2, 3, 4) соответствует следующая информация:

*The state tries to curb privatized monopolies through various regulations.*

4; 1; 2; 3.

7. Ответьте на вопрос:

*Why is regulation necessary?*

- It stimulates export.
- It prevents monopolies from raising prices beyond fair limits.
- It helps small-business firms.
- It stimulates competitiveness.

8. Определите основную идею текста

- Privatized telecommunication networks in the USA and the UK.
- The fight against high prices.
- Advantages of privatization.
- Public ownership and privatization.

**MARKETS**

1. The function of a market requires that both parties expect to become better off as a result of the transaction. Markets are efficient when the price of a good or service attracts as much demand as the market can currently supply. The chief function of a market is to adjust prices to accommodate fluctuations in supply and demand. An economic system in which goods and services are exchanged by market functions is called a market economy. An alternative economic system in which non-market forces determine prices is called planned economy or command economy. The attempt to combine socialist ideals with the incentive system of a market is known as market socialism.

2. There are various types of markets and organizational structures to assist their functions. A market can be organized as an auction, as a shopping center, as a complex institution such as a stock market, and as an informal discussion between two individuals.
3. In economics, a market that runs under laissez-faire policies is a free market. It is "free" in the sense that the government makes no attempt to intervene through taxes, subsidies, minimum wages, price ceilings, etc. Markets may be distorted by a seller or sellers with monopoly power, or a buyer with monopsony power. The level of organization or negotiation power of buyers, markedly affects the functioning of the market. Markets where price negotiations do not arrive at efficient outcomes for both sides are said to experience market failure.

4. Most markets are regulated by state wide laws and regulations. While barter markets exist, most markets use currency or some other form of money. Markets of varying types can spontaneously arise whenever a party has interest in a good or service that some other party can provide. There can be black markets, where a good is exchanged illegally and virtual markets, such as eBay in which buyers and sellers do not physically interact. There can also be markets for goods under a command economy despite pressure to repress them.

1. Определите, является ли утверждение:
*Free market is not regulated by the government by means of taxes, subsidies or minimum wages*

и стиным; ложным; в тексте нет информации.

2. Определите, является ли утверждение:
*Barter markets are the survival of primitive economies*

и стиным; ложным; в тексте нет информации.

3. Определите, является ли утверждение:
*The so-called eBay markets cannot be found in market socialism*

и стиным; ложным; в тексте нет информации.

4. Укажите, какой части текста (1, 2, 3, 4) соответствует следующая информация:
*The notion of a free market.*

1; 4; 3; 2.

5. Укажите, какой части текста (1, 2, 3, 4) соответствует следующая информация:
*The market-state relationship.*

4; 1; 3; 2.

6. Ответьте на вопрос:
*What do most markets use in their operations?*
- They use various kinds of currency.
- They use electronic money systems.
- They use barter systems.
- They use cash.

7. Определите основную идею текста.
- Legal and illegal markets.
- The main functions of a free market.
- The role of non-market forces.
- Types of modern markets.
SOCIAL AND ECONOMIC ISSUES

1. The American belief in "free enterprise" has not precluded a major role for government, however. Americans at times have looked to government to break up or regulate companies that appeared to be developing so much power that they could defy market forces. They have relied on government to address matters the private economy overlooks, from education to protecting the environment. And despite their advocacy of market principles, they have used government to nurture new industries, and even to protect American companies from competition.

2. As the sometimes inconsistent approach to regulation demonstrates, Americans often disagree about the appropriate role of government in the economy. In general, government grew larger and intervened more aggressively in the economy from the 1930s until the 1970s.

3. But economic hardships in the 1960s and 1970s left Americans skeptical about the ability of government to address many social and economic issues. Major social programs - including Social Security and Medicare, which provide retirement income and health insurance for the elderly - survived this period of reconsideration. But the growth of the federal government slowed in the 1980s.

4. The pragmatism and flexibility of Americans has resulted in an unusually dynamic economy. Change - whether produced by growing affluence, technological innovation, or growing trade with other nations - has been a constant in American economic history. The once agrarian country is now far more urban - and suburban - today than it was 100, or even 50, years ago. Services have become increasingly important relative to traditional manufacturing. In some industries, mass production has given way to more specialized production that emphasizes product diversity and customization. Large corporations have merged, split up, and reorganized. New industries and companies that did not exist at the midpoint of the 20th century now play a major role in the nation's economic life.

1. Определите, является ли утверждение:
Americans expect their government to solve problems which private economy ignores

истинным; ложным; в тексте нет информации.

2. Определите, является ли утверждение:
Americans never doubt whether their government is capable of solving their social or economic

истинным; ложным; в тексте нет информации.

3. Определите, является ли утверждение:
Product diversity and customization are the main trends in the US economy

истинным; ложным; в тексте нет информации.
4. Определите, является ли утверждение:
*Both the US Government and private business play an important role in the economy of the USA*
истинным; ложным; в тексте нет информации.

5. Укажите, какой части текста (1, 2, 3, 4) соответствует следующая информация:
*Common sense of Americans brought about intensive economic development.*
2; 1; 4; 3.

6. Укажите, какой части текста (1, 2, 3, 4) соответствует следующая информация:
*New companies are beginning to play the main role in the nation's economic life.*
1; 3; 4; 2.

7. Ответьте на вопрос:
What was the essence of the Social Security program?
- Retirement income.
- Higher retirement age.
- The right for Medicave.
- Lower retirement age.

8. Определите основную идею текста.
- Turning into an industrialized power.
- Free enterprise and the role of government in America.
- Social benefits in the USA.
- Economic hardships in the 1960s and 1970s.

**TIPS FOR A YOUNG MANAGER**

1. The first steps to becoming a really great manager are simply common sense; but common sense is not very common. The major problem when you start to manage is that you do not actually think about management issues because you do not recognize them. Things normally go wrong not because you are stupid but only because you have never thought about it. Management is about pausing to ask yourself the right questions so that your common sense can provide the answers.

2. When you gain managerial responsibility, your first option is to do what is expected of you. You are new at the job, so people will understand. You can learn (slowly) by your mistakes and probably you will try to devote as much time as possible to the rest of your work (which is what you were good at anyway). Those extra little "management" problems are just common sense, so try to deal with them when they come up.

3. Your second option is far more exciting: find an empty telephone box, put on a cape and bright-red underpants, and become a Super Manager. When you become a manager, you gain control over your own work; not all of it, but some of it. You can change things. You can do things differently. You actually have the authority to make a huge impact upon the way in which your staff works. You can shape your own work environment.
4. In a large company, your options may be limited by the existing corporate culture - and my advice to you is to act like a crab: face directly into the main thrust of corporate policy, and make changes sideways. You do not want to fight the system, but rather to work better within it. In a small company, your options are possibly much wider (since custom is often less rigid) and the impact that you and your team has upon the company's success is proportionately much greater. Thus once you start working well, this will be quickly recognized and nothing gains faster approval than success. But whatever you work, do not be put off by the surprise colleagues will show when you first get serious about managing well.

1. Определите, является ли утверждение:
The larger the company the easier it is to conceal a managerial mistake
ложным; истинным; в тексте нет информации.

2. Определите, является ли утверждение:
Even in a large company a new manager can try and introduce changes he finds to be necessary
ложным; истинным; в тексте нет информации.

3. Определите, является ли утверждение:
Common sense can always help a manager in solving various vital issues
ложным; истинным; в тексте нет информации.

4. Определите, является ли утверждение:
Colleagues will never put up with wrong decisions taken by the young manager
ложным; истинным; в тексте нет информации.

5. Укажите, какой части текста (1, 2, 3, 4) соответствует следующая информация:
A good manager is the creator of his working environment
1; 2; 3; 4.

6. Укажите, какой части текста (1, 2, 3, 4) соответствует следующая информация:
First think then do.
2; 4; 3; 1.

7. Ответьте на вопрос:
What should a manager do if he wants to realize his ideas?
- He should wait and see if somebody else will suggest the same.
- He should consult his seniors.
- He should not argue but put his ideas into practice.
- He should study international experience.

8. Определите основную идею текста
- Knowledge of human nature can help a young manager.
- Common sense and managerial competence.
- Corporate policy is a problem for a young manager.
- What makes a great manager?
1. Systems theory has had a significant effect on management science and understanding organizations. A system is a collection of parts unified to accomplish an overall goal. If one part of the system is removed, the nature of the system is changed as well. For example, a pile of sand is not a system. If one removes a sand particle, you've still got a pile of sand. However, a functioning car is a system. Remove the carburetor and you've no longer got a working car. A system can be looked at as having inputs, processes, outputs and outcomes. Systems share feedback among each of these four aspects of the systems.

2. Let's look at an organization. Inputs would include resources such as raw materials, money, technologies and people. These inputs go through a process where they're planned, organized, motivated and controlled, ultimately to meet the organization's goals. Outputs would be products or services to a market. Feedback would be information from human resources carrying out the process, customers/clients using the products, etc. Feedback also comes from the larger environment of the organization, e.g., influences from government, society, economics, and technologies. This overall system framework applies to any system, including subsystems (departments, programs, etc.).

3. Systems theory may seem quite basic. Yet, decades of management training and practices in the workplace have not followed this theory. This interpretation has brought about a significant change (or paradigm shift) in the way management studies and approaches organizations.

4. The effect of systems theory in management is that writers, educators, consultants, etc. are helping managers to look at the organization from a broader perspective. Systems theory has brought a new perspective for managers to interpret patterns and events in the workplace and recognize the various parts of the organization and the interrelations of the parts.

1. Определите, является ли утверждение:

   Modern management is based on a complex Systems theory  
ложным; истинным; в тексте нет информации.

2. Определите, является ли утверждение:

   A system can properly function when all its elements are present  
ложным; истинным; в тексте нет информации.

3. Определите, является ли утверждение:

   System theory was only applied to management at the turn of the century  
ложным; истинным; в тексте нет информации.

4. Определите, является ли утверждение:

   Without Systems theory there might be no management  
ложным; истинным; в тексте нет информации.
5. Укажите, какой части текста (1, 2, 3, 4) соответствует следующая информация:

*Systems theory gives scientists a better understanding of the nature of managing processes*

2; 3; 1; 4.

6. Укажите, какой части текста (1, 2, 3, 4) соответствует следующая информация:

*Systems theory revolutionized management science*

4; 2; 1; 3.

7. Ответьте на вопрос:

**What is a system?**

- A set of similar parts.
- A random combination of parts of the same dimension.
- A set of various parts.
- A combination of parts aimed at achieving a certain goal.

8. Определите основную идею текста.

- Systems theory in management.
- Management training and practices.
- The basics of the Systems theory.
- Different approaches to scientific management.

**CITY MANAGER**

1. City Manager is the principal executive and administrative officer of a municipality under a council-manager system of local government. Under such a form the voters elect only the city council, which appoints a city manager to administer municipal affairs under its supervision. The council acts only collectively, and its individual members, including the mayor, have no administrative functions. The city manager, subject to the general supervision of the council, is in full charge of the administration of municipal affairs. He prepares the budget, appoints and dismisses personnel, directs the work of municipal departments, and attends council meetings in which he presents recommendations on municipal business and takes part in the discussions.

2. The council-manager plan was devised and first advocated in the United States by the National Short Ballot Organization, which proposed to improve local and state government by reducing the number of elected officials. In 1913 Dayton, Ohio, was the first large city to adopt the plan. It spread quickly after that as the plan was adopted in many cities in the United States and Canada as well as in Ireland, Norway, Sweden and some other western countries.

3. Advantages of the council-manager plan are said to be that it provides for a shorter ballot by reducing the number of elected officials; that it unifies authority and political responsibility in the council; that it centralizes administrative re-
responsibility in an administrator appointed by the council; and that it reduces the number of patronage jobs.

4. Some criticisms of the plan are that the city manager usually comes from outside the city and, being an outsider, he is therefore unfamiliar with the problems of the city; that it places too much power in the hands of one person; that it promotes a middle-class orientation to efficiency rather than to need; and that the purely bureaucratic administration of the city may be unresponsive to the demands and problems of the people.

1. It is false.

A city-manager is elected by direct voting of the local residents

2. It is true.

The council-manager management model is used not only in the USA but also in some European countries

3. It is false.

A council individual member hasn't got any administrative functions

4. It is true.

Only residents of the state can be appointed city-managers by the local council

5. It is true.

The aim of the institution of the city-management is to improve the work of government

6. It is true.

Shortcomings of the city-management model

7. It is true.

What are the disadvantages of the city-manager system?
- An outsider is not familiar with the problems of the city.
- Citizens cannot make a city-manager resign from his post.
- A city-manager's term in office is not limited.
- A city cannot fire a city-manager.

8. It is false.

The main models of city-management.
- Disadvantages of municipal government systems.
- The birth of the city-management system.
- Authority and political responsibilities.
THE MAIN VARIATIONS OF MUNICIPAL GOVERNMENT

1. The council-manager government is one of two main variations of representative municipal government in the U. S. This system of government is used in the majority of American cities with populations over 12,000. The system is also used in the Republic of Ireland for city councils and county councils.

2. In the council-manager form of government, an elected city council is responsible for making policy, passing ordinances, voting appropriations, and having overall supervisory authority in the city government. In such a government, the mayor (or equivalent executive) will perform strictly ceremonial duties or will act as a member and presiding officer of the council.

3. The council will hire a city manager or administrator who will be responsible for supervising government operations and implementing the policies of the council. The manager serves the council, usually with a contract that specifies duties and responsibilities. Municipal governments are usually divided into several departments, depending on the size of the city. Though cities differ in the division of responsibility, the typical arrangement is to have various departments handle various functions.

4. The council-manager system can be seen to place all power into the hands of the legislative branch. However, a city manager can be seen as a similar role to that of corporate Chief Executive Officer (CEO) in providing professional management to an organization. Council-manager government is much like a publicly traded corporation. In a corporation, the board of directors appoints a CEO, makes major decisions and wields representative power on behalf of shareholders. Likewise in council-manager government, the city council appoints a city manager, makes major decisions, and wields representative power on behalf of the citizens. In New England the city manager may be called town manager, and the council can often be referred to its traditional name of Board of Selectmen.

1. Определите, является ли утверждение:
   *The council-manager government system is a typically American phenomenon*
   ложным; истинным; в тексте нет информации.

2. Определите, является ли утверждение:
   *The council-manager can veto decisions taken by the municipal government*
   ложным; истинным; в тексте нет информации.

3. Определите, является ли утверждение:
   *A city-manager is appointed by the city council*
   ложным; истинным; в тексте нет информации.

4. Определите, является ли утверждение:
   *There are two main types of the USA representative municipal government*
   ложным; истинным; в тексте нет информации.
5. Укажите, какой части текста (1, 2, 3, 4) соответствует следующая информация:
**The sphere of responsibilities of the city council**
3; 1; 4; 2.
6. Укажите, какой части текста (1, 2, 3, 4) соответствует следующая информация:
**The round of duties of the city-manager.**
3; 1; 4; 2.
7. Ответьте на вопрос:
**How does the city manager get his post?**
- The city manager is hired by the council.
- The city manager is elected from among the council members.
- The city manager is elected by the local population.
- The city manager is appointed by the head of the state.
8. Определите основную идею текста
- The difference between the city-manager system and mayor system.
- The USA council-manager government system.
- The legislative branch under the council-manager government.
- The duties of a city-manager.

**RADIO REVOLUTIONARIES**

1. Software-defined radio is one of those promising ideas that have been anticipated for quite some time. The concept is simple: get rid of the specialized electronics used to process radio signals and instead do everything with software. The result will be a universal wireless device that can handle a range of frequencies, modulation techniques, and encoding schemes. A software radio one day will replace your cell phone.
2. A cell phone based on software-defined radio would be lighter, smaller, cheaper, and more power efficient. This revolution is bound to happen in a series of incremental but significant steps. Steps like this: Vanu says that this year it will begin selling the first cellular base station that can simultaneously process two waveforms-CDMA (short for code division multiple access) and GSM (global system for mobile communications) – all in software running on off-the-shelf computer.
3. Nearly every radio, be it a walkie-talkie or a pager or a portable AM/FM unit you take to the beach, works pretty much the same way. In a traditional cell phone there's the radio front end, consisting of an antenna and a radio-frequency transceiver that picks up the analog radio waves, filters out the unwanted portions of the spectrum, and converts the remainder into a lower-frequency signal, which is fed into an analog-to-digital converter. The resulting base band signal is then processed by a special-purpose integrated circuit, a digital signal processor, a field-programmable gate array, or some combination of the three. The re-
sulting streams of bits—voice or data—could be the latest stock quotes, a "happy birthday" call from your mom, or a snapshot of your co-worker snoozing at his desk.

4. Software-defined radio aims to get rid of most of that hardware. A number of companies are working on reconfigurable RF chips that can directly convert any analog radio signal into a digital one, across frequencies from several hundred megahertz to several gigahertz.

1. The purpose of software radio is to stop using electronic equipment while processing radio signals

2. A transceiver passes the unwanted part of waves to the signal processor

3. It's hard to design a single antenna with good gain across a wide range of frequencies

4. Vanu is one of the revolutionaries producing radio frequency chips

5. Radio signals must be converted into digital form by means of special chips

6. Any radio device contains a number of receiving and converting signals

What is the advantage of software-defined cell phone?

- We cannot get rid of an antenna and a radio-frequency transceiver.
- Reconfigurable chips are capable of working across a wide range of frequencies.
- The concept of software radio will lead to the creation of universal wireless device.
- A global system for mobile communications will transmit the latest stock quotes.
RADIO NOISE AND INTERFERENCE

1. Any sudden discharge of electrical energy, like that of lightning, produces transient radio-frequency waves, which are picked up by antennas. These packets of radio-frequency energy produce the crackle heard on an amplitude-modulated radio receiver when an electrical storm is nearby and may be classed as natural noise. Switching of high-voltage power lines can produce similar effects; the lines help to carry the noise-producing signals over long distances. Local switching of lights and electrical machinery can also produce the familiar crackle when the receiver is close to the noise-producing source.

2. Generally noise of both types decreases as the frequency is increased. An exception is automobile ignition noise, which produces maximum effect in the very-high-frequency range, causing a sound in nearby loudspeakers every time a spark plug fires. Many countries have legislation requiring the suppression of man made noise by means of filters that reduce the amount of radio-frequency energy released at the source. Metallic shielding of leads to and from the noise source curtails the radiated interference. It is also possible to install various noise-reducing devices at the input to radio receivers.

3. Noise is also caused by irregularities in the flow of electrons in metals, transistors, and electron tubes. This source of noise ultimately limits the maximum useful signal amplification that can be provided by a receiver. Radio noise can also be picked up from outer space as a hiss similar to random electron noise.

4. The phenomenon of interference occurs when an undesired signal overlaps the channel reserved for the desired signal. By interaction with the desired carrier, the undesired information may cause speech to become unintelligible. Countermeasures include narrowing the desired channel, thus losing some information but preventing overlap, and using a directional antenna to discriminate against the undesired transmission.

1. Определите, является ли утверждение:

   Generally noise of both types decreases as the frequency is increased

   ложным; истинным; в тексте нет информации.

2. Определите, является ли утверждение:

   Antennas pick up short-duration radio-frequency waves, which are produced by sudden discharge of electrical energy

   ложным; истинным; в тексте нет информации.

3. Определите, является ли утверждение:

   The fading effect can be reduced by various electronic controls, such as automatic gain control

   ложным; истинным; в тексте нет информации.

4. Определите, является ли утверждение:

   The crackle heard in radio receiver can also be produced by switching of high-voltage power lines

   ложным; истинным; в тексте нет информации.
5. Укажите, какой части текста (1, 2, 3, 4) соответствует следующая информация:
There are two types of noises.
3; 1; 4; 2.
6. Укажите, какой части текста (1, 2, 3, 4) соответствует следующая информация:
There are some possible noise-reducing measures.
4; 2; 1; 3.
7. Ответьте на вопрос:
What source of noise can limit signal amplification provided by a receiver?
- An automobile ignition noise. An electrical storm.
- Noise caused by irregularities in the flow of electrons on metals, transistors, and electron tubes.
- Switching of high-voltage power lines.
8. Определите основную идею текста.
- Antennas pick up radio-frequency waves.
- The phenomenon of interference.
- The methods of reducing man-made noise.
- The classification of noises and reasons of their origin.

AMATEUR RADIO

1. A radio broadcast normally consists of only one information signal. The listener hears what he would hear at the microphone position if only one of his ears was functioning. In such a system it is not possible to gain any impression of the position of the instrument groupings in an orchestra, nor can lateral movement be indicated.
2. Amateur radio is two-way radio communications. Messages are sent either by voice or in International Morse Code. Interest in amateur radio arose around the turn of the century, shortly after the Italian inventor Guglielmo Marconi successfully sent the first transatlantic wireless signal in 1901. After World War I, amateurs became active in radio experimentation, contributing to developments in long-distance broadcasting and becoming the first radio operators successfully to exploit the upper medium-frequency and lower high-frequency radio bands.
3. Over the years, amateur radio operators have also provided emergency communications during forest fires, floods, hurricanes, and other disasters. They serve as an important link between stricken communities and the outside world until normal communications are reestablished.
4. Amateur radio operators in the United States are subject to international and federal regulations. There are five classes of licenses. Competence in the use of the International Morse Code and knowledge of radio theory and regulation are required to obtain the advanced-level licenses. Amateur radio is allocated fre-
frequencies at the extreme high-frequency end of the medium-wave band, five
groups of frequencies in the shortwave band, two groups in the very-high-
frequency band, three in the ultrahigh-frequency band, and seven in the super
high-frequency band for telegraphic and telephonic communication using ampli-
tude and frequency modulation. There are restrictions on the power of the
transmitters, and certain of the frequencies must be shared with due regard for
the needs of other users.

1. Определите, является ли утверждение:
*Amateur radio became popular at the beginning of the 20th century*
ложным; истинным; в тексте нет информации.

2. Определите, является ли утверждение:
*During World War I amateurs carried out a lot of radio experiments*
ложным; истинным; в тексте нет информации.

3. Определите, является ли утверждение:
*Amateur radio is noncommercial radio communications*
ложным; истинным; в тексте нет информации.

4. Определите, является ли утверждение:
*Amateur radio broadcast is regulated by the government in the USA*
ложным; истинным; в тексте нет информации.

5. Укажите, какой части текста (1, 2, 3, 4) соответствует следующая
информация:
*To be the amateur radio operator one must obtain the high-standard licenses*
1; 3; 4; 2.

6. Укажите, какой части текста (1, 2, 3, 4) соответствует следующая
информация:
*Guglielmo Marconi was the first who successfully sent transatlantic message
at the beginning of the 20th century*
3; 1; 2; 4.

7. Ответьте на вопрос:
*What is the main task of amateur radio operators during natural disasters?*
- Their task is to give people some information about earthquakes and storms.
- Their task is to predict many natural events such as forest fires.
- The task is to connect stricken areas and the outside world.
- The task is to experiment with a radio broadcast.

8. Определите основную идею текста.
- Different amateur radio operators appeared in the US after 1901.
- Amateur radio is still widely used in the modern society.
- The Italian inventor Guglielmo Marconi was the ancestor of the radio broad-
cast.
- The regulations of amateur radio operators in the USA are very strict.