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Department of “Economics”

E. V. Treytiakova

THE ECONOMICS OF ELECTRONIC BUSINESS

STUDY GUIDE
for students of the specialty 1-25 01 07
“Economics and enterprise management”

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Treytiakova, E. V.

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The textbook discusses the main issues of the essence of e-business and e-commerce. The methods and tools of business processes based on information and communication technologies are presented. The test materials for independent extracurricular work are presented. Theoretical issues are presented at the current level, taking into account domestic and foreign developments in information and communication technologies.

For students, undergraduates, postgraduates and teachers of economic specialties, as well as employees of economic services of organizations.

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CONTENT

Topic 1
Information computer technologies and role in the information society

In the course of its development, civilization has passed through several stages, at each of which the level of life activity of both individuals and communities depended on their awareness and ability to process data effectively.

The stages of creating new data processing tools and methods that have led to significant changes in society, that is, which have changed the way of production, lifestyle, and value system, are called information revolutions. Information revolutions have caused a gradual transition from an agrarian society to an information society, where intelligence and knowledge are the means and product of production.

Information and communication technologies (IT) are one of the most important factors influencing the formation of a twenty-first century society. Their revolutionary impact concerns people's way of life, their education and work, as well as the interaction of government and civil society. IT is rapidly becoming a vital stimulus for the development of the global economy. They also provide an opportunity for all individuals, firms and communities engaged in entrepreneurial activities to solve economic and social problems more effectively and creatively.

Information and communication technologies (IT) are one of the most important factors influencing the formation of the society of the twenty-first century. The concept of information technology is based on two fundamental concepts – “information” and “technology”. **Information** – these are a message informing about the status and state of affairs. **Technology** – these are methods for processing, changing the properties, shape and state of objects.

Information technologies – these are set of processes, methods of searching, collecting, snoring, processing, providing, distributing information and ways of implementing such processes and methods.

It is possible to distinguish the main **features of information technologies**

▪ the purpose of information technology is to obtain new information for its analysis by a person and to make a decision on this basis to perform a certain action;

▪ the means by which the technological process is carried out are a variety of software, hardware and computer complexes;

▪ the criteria for the optimality of the technological process are the reliability of information processing, the reliability and completeness of the processed information, the timeliness of transmitting information to users.

Information and telecommunications technologies are actively developing and penetrating into all spheres of activity – economics, business, education, medicine,management, culture.

Stages of development of information technologies and informatization of society:

The **first stage** of the development of information technologies is associated with the appearance of human speech at an early stage of the development of our civilization and the discovery of such methods of storing information on a material medium as rock paintings and bone engraving.

The **second stage** is connected with the invention of writing. It has become possible to register symbolic information on a tangible medium and transfer knowledge from generation to generation.

The **third stage** (the middle of the XVI century) is associated with the invention of printing, which radically changed the culture and organization of activities. There is an opportunity for active dissemination of information and its replication.

The **fourth stage** (the end of the XIX century) was due to the invention of electricity, thanks to which the telegraph, telephone, and radio appeared, allowing for the rapid transmission and accumulation of information.

The **fifth stage** (the 70s of the XX century) is associated with the invention of microprocessor technology and the advent of a personal computer. Computers, computer networks, and data transmission systems (information communications) are created on microprocessors and integrated circuits.

The last stage in the development of information technology highlights a new industry – the **information industry**, associated with the production of technical means, methods, technologies for the dissemination of new knowledge. All types of information technologies, especially telecommunications, are becoming the most important components of the information industry.

The development of computer technology and information technologies stimulated the development of a society built on the use of information and knowledge and called the **information society**

An **information society** is a society in which information is a key component of economic and social life.

An information society is a society in which computers, information systems and services that meet the information needs of the user, as well as other means of computer science as tools of intellectual labor are included in all spheres of life

Characteristic features of the information society:

– the company is based on automated processes based on the latest information technology and technology, generation, storage, processing and use of knowledge;

– information technologies have acquired a global character, covering all spheres of human social activity;

– the informational unity of the entire human civilization has been ensured.

Information culture is the ability to work purposefully with data and use information and communication technologies, modern technical means and methods for obtaining, processing and transmitting them. Information culture is manifested in a person:

– in specific skills of using various technical devices-from a phone to a personal computer and network devices;

– in the ability to use information and communication technologies in their activities;

– in the ability to receive data from various sources — from periodical printed sources to electronic communications;

– the ability to present information in an understandable form and use it effectively;

– in the knowledge of analytical methods of data processing;

– in the ability to work with messages of various types.

Informatization of society is an organized socio–economic, scientific and technical process of creating optimal conditions for meeting information needs and realizing the rights of citizens, public authorities, local governments, organizations, public associations based on the formation and use of information resources.

Information resources – separate documents and separate arrays of documents, documents and arrays of documents in information systems (libraries, archives, funds, data banks, other information systems).

The emergence of the information society has led to the development of ethical standards in the field of information technology.

The first code of computer ethics was developed and adopted at the Institute of Electronics and Electrical Engineers (IEEE) in 1979. Later, codes of ethics were developed and adopted by the Association of Computer Technology Developers (ACM), the Association of Information Technology Managers (DRMA), the Association of Information Technology Users in the United States (ITAA), the Association of Certified Computer Professionals (ICCP).

Moral principles of computer ethics codes: privacy(the secret of private life), accuracy "akyerasi" (accuracy), property "propeti" (private property) and accessibility "accessibilati" (accessibility).

The principle of "**privacy**" expresses the human right to autonomy and freedom in private life, the right to protection from intrusion into it by authorities and other people.

The principle of accuracy "**akyerasi**" – this compliance with the instructions for the operation of systems and information processing, an honest and socially responsible attitude to their duties presuppose norms based on the principle of"accuracy".

The principle of "**property**" means the inviolability of private property and is the basis of the property order in the economy.

The principle of "**accessibility**" to information, one of the main principles of the information society, defines the right of citizens to information and assumes the availability of each subject of society to information technologies and to any information necessary for it, allowed for access, at any time and in any place.

Test questions on the topic N 1
Information computer technologies and their role in the information society

1. Which of the following applies to the constituent elements of information technologies ?

A) all of the above;
B) computers;
C) information;
D) technology.

2. Which of the above does NOT correspond to the characteristic features of the information society?

A) the main form of development is the information economy;

B) the priority of information is ensured in comparison with other resources;

C) information technologies do not cover all areas of human social activity;

D) the unity of the entire human civilization is provided with information.

3. Which of the following corresponds to the full definition of the concept of "information technologies"?

A) a set of processes, methods of search, dissemination of information and ways of implementing such processes and methods;

B) a set of processes, methods of storing, processing, providing, distributing information;

C) a set of methods for searching, storing, processing, distributing information and ways of implementing such processes and methods;

D) a set of processes, methods of searching, collecting, storing, processing, providing, distributing information and ways of implementing such processes and methods.

4. Which of the following applies to the criteria for the optimality of information technologies?

A) reliability of information processing;

B) completeness of the processed information;

C) all of the above;

D) timely transmission of information to users.

5. Which of the following does NOT apply to the technical means of information technologies?

A) software packages;

B) computers;

C) a person;

D) computer systems.

6. Which of the following corresponds to the full definition of the concept of "information society"?

A) a society in which information is not a key component of economic and social life;

B) a society in which information is a key component of economic life;

C) a society in which information is a key component of social life;

D) a society in which information is a key component of economic and social life.

7. Which of the above does NOT correspond to the information society?

A) the company is based on automated processes based on outdated information technology;

B) information technologies have acquired a global character, covering all spheres of human social activity;

C) the company is based on automated processes based on the latest information technology and technology, generation, storage, processing and use of knowledge;

D) the informational unity of the entire human civilization has been ensured.

8. Which of the following applies to the moral principles of computer ethics codes?

A) all of the above;

B) property;

C) accuracy;

D) accessibility.

9. Which of the following corresponds to the moral principle of the codes of computer ethics "privacy"?

A) this compliance with the instructions for the operation of systems and information processing, an honest and socially responsible attitude to their duties;

B) expresses the human right to autonomy and freedom in private life, the right to protection from intrusion into it by authorities and other people;

C) means the inviolability of private property and is the basis of the property order in the economy;

D) defines the right of citizens to information and assumes the availability of each subject of society to information technologies and to any information necessary for it, allowed for access, at any time and in any place.

10. Which of the following corresponds to the moral principle of the codes of computer ethics "akyerasi"?

A) this compliance with the instructions for the operation of systems and information processing, an honest and socially responsible attitude to their duties;

B) expresses the human right to autonomy and freedom in private life, the right to protection from intrusion into it by authorities and other people;

C) means the inviolability of private property and is the basis of the property order in the economy;

D) defines the right of citizens to information and assumes the availability of each subject of society to information technologies and to any information necessary for it, allowed for access, at any time and in any place.

11. Which of the following corresponds to the moral principle of the codes of computer ethics "property"?

A) this compliance with the instructions for the operation of systems and information processing, an honest and socially responsible attitude to their duties;

B) expresses the human right to autonomy and freedom in private life, the right to protection from intrusion into it by authorities and other people;

C) means the inviolability of private property and is the basis of the property order in the economy;

D) defines the right of citizens to information and assumes the availability of each subject of society to information technologies and to any information necessary for it, allowed for access, at any time and in any place.

12. Which of the following corresponds to the moral principle of the codes of computer ethics "accessibility"?

A) this compliance with the instructions for the operation of systems and information processing, an honest and socially responsible attitude to their duties;

B) expresses the human right to autonomy and freedom in private life, the right to protection from intrusion into it by authorities and other people;

C) means the inviolability of private property and is the basis of the property order in the economy;

D) defines the right of citizens to information and assumes the availability of each subject of society to information technologies and to any information necessary for it, allowed for access, at any time and in any place.

Topic 2
Electronic business and its place in the modern economy

E-business is the transformation of basic business processes using Internet technologies. Electronic business is any business activity that uses the capabilities of global information networks to transform internal and external relations in order to create profit.

The main types of e-business that bring profit:

– e-commerce;
– electronic auctions;
– electronic banks;
– electronic casinos;
– electronic franchising;
– e-learning;
– electronic marketing;
– electronic brokerage services;
– electronic management.

Electronic business is a form of doing business with the use of information technologies (these are local and global networks, software). E-business includes: sales, marketing, financial analysis, payments, employee search, user support and partnerships. Electronic business (e-business) is a business model in which business processes, business information exchange and commercial transactions are automated using information systems. E-business solutions use Internet technologies to transfer data and provide web services.

E-business related to the Internet:

– business on the Internet (internet service provider (provides Internet access services), content provider (provides information for a fee) and service provider (intermediary of various services, consulting, services, legal services, real estate services, education, communication, storage, information processing)).

– business around the Internet (supply of hardware, software, web design, programming and related services);

– business on the Internet (online advertising, online stores, online auctions, online settlements, Internet marketing, Internet commerce).

An integral element of e-business is e-commerce.

E-commerce -any form of transactions, using the capabilities of information and telecommunications technologies of systems and networks.

E-commerce is only one of the components of e-business, which is limited to conducting transactions using electronic systems, for example, the sale of goods or the provision of services via the Internet.

E-commerce objects:

– goods, material values, products, objects, raw materials, products of industrial and technical purpose and other objects of property rights;

– work;

– service.

E-commerce entities:

– individuals;

– legal entities;

– financial institutions;

– state;

– government agencies;

– buyers and customers of the relevant goods, works or services.

Economic benefits for e-commerce participants:

– reduction of operating costs;

– reducing the cost of advertising;

– personal customer service processes;

– the ability to effectively manage and carry out activities from anywhere;

– high “speed” of conducting marketing research;

– reducing the cost of information exchange;

– simplify contacts.

Economic benefits of buyers:

– reducing the time spent on visiting stores;

– constant availability of shops for visiting;

– simplify the search for products;

– prompt comparison of the characteristics and prices of goods in various stores;

– “accelerated” feedback from the “store”.

The emergence of a new electronic economy was the result of a breakthrough in the field of telecommunications and data processing systems. Individuals and companies around the world are connected to each other through electronic channels. This leads to a change in the principles of doing business, the main characteristics of a business.

Characteristics of a business in e-commerce:

1) processing and exchange of information has become a powerful and effective means of doing business than the movement of physical goods. The value of companies is largely determined by assets such as people, ideas, technologies and strategies for using the company's information resources;

2) the distances disappear. Everyone can quickly contact their client anywhere in the world;

3) interactivity becomes the most important factor of success, it leads to significant changes in the conduct of business. The advantages in busi-

ness are obtained by those who can quickly respond to changes in the market and adapt to new conditions in real time;

4) intellectual capital is becoming the main factor in the development of the new economy. Original ideas, technologies and business models bring large revenues;

5) an ordinary intermediary is replaced by an information intermediary. The need for information intermediaries capable of processing the data flow into useful information appears with the growth of information volumes.

Phases of e-commerce development:

1) The first phase is communication. It is characterized by the emergence of an FTP server. FTP – File Transfer Protocol allows you to send and receive files;

2) The second phase is one-way marketing. The "Mosaic" system appears – the prototype of the World Wide Web, which served to disseminate market information and provided customers with basic services;

3) The third phase is characterized by the emergence of the World Wide Web system. As a result of the creation of WWW, it became possible to interact with customers, implement basic communications between companies, and simple transactions;

4) The fourth phase of development is characterized by the transformation of business processes and the emergence of new business areas.

Test questions on the topic N 2
Electronic business and its place in the modern economy

1. Which of the following does not apply to the types of electronic business?

A) e-commerce;
B) electronic court;
C) electronic banking;
D) electronic marketing.

2. Which of the following corresponds to the concept of "business on the Internet"?

A) supply of technical means, software, web design, programming and related services, resale of firms;

B) internet service provider, content provider, service provider;

C) online advertising, online stores, online auctions, online settlements, Internet marketing, Internet commerce;

D) all the answers are correct.

3. Which of the following corresponds to the concept of "business around the Internet"?

A) supply of technical means, software, web design, programming and related services, resale of firms;

B) Internet service provider, content provider, service provider;

C) Internet advertising, online stores, online auctions, Internet settlements, Internet marketing, Internet commerce, information subscription, mass media on the Internet;

D) electronic banks.

4. Which of the following corresponds to the concept of "business using the internet"?

A) online advertising, online stores, online auctions, online settlements, online marketing, online commerce, information subscription, mass media on the Internet;

B) supply of technical means, software, web design, programming and related services, resale of firms;

C) Internet service provider, content provider, service provider;

D) there is no correct answer.

***5.* Which of the following corresponds to the full definition of the category "e-commerce"?**

A) any forms of transactions in which the interaction of the parties is carried out using the capabilities of the systems;

B) any forms of transactions in which the interaction of the parties is carried out using the capabilities of telecommunications technologies of networks;

C) limited forms of transactions in which the interaction of the parties is carried out using the capabilities of information and telecommunications technologies of systems and networks;

D) any forms of transactions in which the interaction of the parties is carried out using the capabilities of information and telecommunications technologies of systems and networks.

6. Which of the following does not apply to e-commerce objects?

A) work;

B) the service;

C) the product;

D) a person.

7. Which of the following does NOT apply to e-commerce entities ?

A) the product;

B) individuals;

C) the authorities;

D) financial institutions.

8. Which of the following does NOT apply to the economic benefits received by e-commerce participants?

A) increase in advertising costs;

B) reduction of operating costs;

C) high “speed” of conducting marketing research of market segments’ niches;

D) reducing the cost of information exchange.

9. Which of the following does NOT apply to the economic benefits received by e-commerce buyers?

A) reducing the costs associated with the registration of the act of sale;

B) reduction of the way of delivery of the goods to the buyer;

C) simplification of the procedure for searching for goods;

D) an increase in the time spent on visiting stores.

10. Which of the following applies to the first phase of e-commerce development?

A) communications;

B) one-sided marketing;

C) transformation of business processes;

D) the emergence of the World Wide Web system.

11. Which of the following applies to the second phase of e-commerce development?

A) communications;

B) one-way marketing;

C) transformation of business processes;

D) the emergence of the World Wide Web system.

12. Which of the following applies to the third phase of e-commerce development?

A) communications;

B) one-sided marketing;

C) transformation of business processes;

D) the emergence of the World Wide Web system.

13. Which of the following does NOT meet the goals of e-commerce?

A) cost reduction;

B) reduced quality of service;

C) speeding up the execution of customer requests;

D) reduction of the production cycle time.

Topic 3
Constituent elements electronic commerce

E-commerce is a form of product delivery, through which an order is made through computer networks, and settlements between the buyer and the supplier are carried out using electronic documents. Buyers of goods (or services) are both individuals and organizations.

In the field of the concept of "e-commerce" includes such activities as conducting marketing research, identifying opportunities and partners, maintaining relations with suppliers and consumers, organizing document flow.

E-commerce is a complex concept and includes electronic data exchange. E-commerce contains:

– electronic exchange of information (Electronic Data Interchange, EDI);

– electronic capital movement (Electronic Funds Transfer, EFS);

– electronic commerce (e-trade);

– electronic money (e-cash);

– electronic marketing (e-marketing);

– electronic banking (e-banking);

– electronic insurance services (e-insurance).

Electronic store is an online representation of a web server for selling goods and services to Internet users. An electronic store is called an online store. The definition of a virtual enterprise fully fits it. An electronic store is a community of geographically separated store employees (sellers, cashiers) and buyers who can communicate and exchange information through electronic means of communication with the complete (or minimal) absence of personal direct contact. An **electronic store** is a community of geographically separated store employees (sellers, cashiers) and buyers who can communicate and exchange information through electronic means of communication with the complete (or minimal) absence of personal direct contact.

The electronic store provides an opportunity to buy goods on the Internet. This type of shopping is becoming more convenient and occupies an important place in our lives. The main **advantages** of electronic stores are round-the-clock access to the electronic store, which can be obtained by any Internet user, saving time and delivering the ordered goods to your home. The advantages include that the cost of maintaining such a store is significantly lower than the cost of a regular store, since you do not need to specifically rent a building, pay for various fire safety orders, licenses.

Disadvantages of an electronic store:

– inability to contact the product;

– delivery period;

– fear of being deceived;

– it is not always a convenient and secure payment method;

– high delivery price;

– unwillingness to register (there are a lot of steps for placing orders).

A **payment system** is a procedure of technical infrastructure and rules that ensure the transfer of money from one entity to another economic entity. Payment systems are an important part of modern monetary systems.

The work of payment systems is to transfer money. From a legal point of view, there is a transfer of debt. The system receives money and fixes the amount, and then becomes the debtor of the client. The client gives an order to transfer the system's debt to another client's account. The second client applies to the payment system and receives a debt in monetary terms. Sometimes the means of payment are not money, but securities or conventional payment units.

Payment systems, depending on the payment method, are divided into the following three large groups:

– credit schemes;

– debit schemes;

– schemes using “electronic money”.

Credit schemes- the most popular in the world - work with ordinary credit (plastic) cards (Visa, MasterCard).

Debit schemes are based on the use of digital equivalents of checks and cash (NetCash, NetChex, NetBill).

Schemes using “electronic money” they mean the transfer of money from account to account, the accrual of interest and other operations

through the transmission of electronic signals without the participation of paper money carriers.(Citybank, DigiCash, PayCash, WebMon).

Acceptance (processing) of plastic cards as a means of payment for online goods/services-includes:

– the buyer of the online store;

– issuing bank (which issued the card);

– acquiring bank (conducting the initial processing of the transaction and providing the entire range of operations with the cards of partner banks);

– payment server (EPS, which ensures the security of the payment).

Payment system requirements:

– reliability and stability of calculations;

– profitability;

– transparency of work;

– risk minimization;

– fairness to all participants;

– the possibility of effective cooperation and conflict resolution between participants and clients.

Application (of an electronic payment system) EPS contributes to the development of e-commerce. Currently, EPS is an effective payment method for mobile operators, Internet service providers.

The work of an electronic payment system is based on electronic money.

Advantages of electronic money:

– mobility;

– speed of transfers, currency exchange, replenishment of electronic wallets, withdrawal of funds;

– confidentiality and high reliability (safety of funds);

– the ability for the client of the payment system to create/delete an unlimited number of electronic wallets;

– the ability for the user to take out loans with electronic money and be a lender himself;

– protection of transactions: the buyer has the right to protect his electronic payments with a password and inform the seller only after receiving the paid goods;

– the possibility of creating a successful Internet business based on electronic money.

Electronic money has much more degrees of freedom compared to real money.

Disadvantages of electronic money:

– the need to know the procedure and rules for using payment systems, terminals, bank cards;

– the need for appropriate technical equipment of the user, whether it is a desktop PC, laptop, smartphone or pocket PC;

– electronic wallets and the money concentrated in them become the intellectual property of customers of payment systems.

E-commerce is financial transactions and transactions carried out through the Internet and private communication networks, during which purchases and sales of goods and services are made, as well as money transfers.

E-commerce can be divided into five interdependent areas of commercial activity of companies:

1. Advertising – attracting the attention of users by dynamic and interactive means of the Internet to the company's commercial website.

2. Product presentation – multimedia display of products by means of the Internet. Video clips, sound effects, three-dimensional images and animation accompaniment are used to display the product.

3. Carrying out operations: choosing a product, filling in an electronic basket, working with an electronic payment system, supporting the execution of an order.

4. After-sales support, warranty service

5. Marketing of partnership relations: carrying out a complex of system measures that allow maintaining commercial relations between the buyer and the enterprise: sending information about the company's activities, new products, conducting marketing research, promotions, prize draws.

Currently, e-commerce models include:

– B2B = Business-to-Business (“company – company”);

– B2C = Business-to-Consumer (“consumer company”);

– C2C =Consumer-to-Consumer (“consumer – consumer”);

– C2B = Consumer-to-Business (“consumer – company”);

– B2G = Business-to-Government (“company-state”);

– E2E = Exchange-to-Exchange (“exchange-exchange”).

B2B = Business-to-Business (“company – company”) Two companies conduct business transactions using the Internet. It includes such types of models as the aggregation model; the trading hub model; the bulletin board model; the auction model; the fully automatic exchange model.

B2C = Business-to-Consumer (“consumer company”): the activity is aimed at direct sales to the consumer.

B2C = Business-to-Consumer (“компания – потребитель”): деятельность нацелена на прямые продажи для потребителя.

C2C = Consumer-to-Consumer (“consumer – consumer”): “virtual shopping community of consumers”, where everyone can buy and sell things.

C2C = Consumer-to-Consumer (“потребитель – потребитель”): «виртуальное торговое сообщество потребителей», где каждый человек может покупать и продавать вещи.

C2B = Consumer-to-Business (“consumer – company”): a type of activity that provides the consumer with the opportunity to independently set the cost for various goods and services offered by companies.

C2B = Consumer-to-Business (“потребитель – компания”): вид деятельности, предоставляющий потребителю возможность самостоятельно устанавливать стоимость для различных товаров и услуг, предлагаемых компаниями.

B2G = Business-to – Government (“company-state”): a type of activity in which the state acts as a seller or buyer, transactions are carried out using the Internet.

Test questions on the topic N 3
Constituent elements electronic commerce

1. Which of the following corresponds to the full definition of the concept of “electronic store”?

A) this is a community of geographically separated store employees (sellers, cashiers) and buyers who can communicate via electronic means of communication with the complete (or minimal) absence of personal direct contact;

B) this is a community of geographically separated store employees (sellers, cashiers) and buyers who can communicate and exchange information;

C) this is a community of geographically separated store employees (sellers, cashiers) and buyers who can communicate and exchange information through electronic means of communication with the complete (or minimal) absence of personal direct contact;

D) this is a community of geographically separated store employees (sellers, cashiers) who can communicate and exchange information

through electronic means of communication with the complete (or minimal) absence of personal direct contact.

2. Which of the following applies to the disadvantages of an electronic store?

A) round-the-clock access to the store;

B) inability to contact the product;

C) the ability to access the store anywhere;

D) saving time for the purchase of goods.

3. Which of the following corresponds to the full definition of the concept of "payment system"?

A) the procedure of technical infrastructure and rules that ensure the transfer of money from one entity to another economic entity;

B) the procedure of technical infrastructure that ensures the transfer of money from one entity to another economic entity;

C) the procedure of rules that ensure the transfer of money from one entity to another economic entity;

D) rules that ensure the transfer of money from one entity to another economic entity.

4. Which of the following does NOT apply to groups of payment systems?

A) schemes using paper checks;

B) credit schemes;

C) debit schemes;

D) schemes using "electronic money".

5. Which of the following corresponds to the characteristics of the credit scheme?

A) based on the use of cash;

B) works with ordinary credit (plastic) cards;

C) is a category of electronic payment systems that transmit the advantages of real cash to the Internet world;

D) based on the use of digital equivalents of checks.

6. Which of the following corresponds to the characteristics of the debit scheme?

A) is a category of electronic payment systems that transmit the advantages of real cash to the Internet world;

B) works with ordinary credit (plastic) cards;

C) works on the basis of cash;

D) is based on the use of digital equivalents of checks and cash.

7. Which of the following corresponds to the characteristics of the operation of the scheme using "electronic money"?

A) is a category of electronic payment systems that transmit the advantages of real cash to the Internet world;

B) works on the basis of cash;

C) based on the use of digital equivalents of checks and cash;

D) works with ordinary credit (plastic) cards.

8. What operations are performed as part of the implementation of an electronic payment between the "buyer" and the "online store"?

A) delivery of the goods;

B) authorization;

C) money transfer;

D) entering card data

9. What operations are performed as part of the implementation of an electronic payment between the "issuing bank" and the "acquiring bank"?

A) request for payment for the goods;

B) entering card data;

C) delivery of goods;

D) transfer of funds.

10. What operations are performed as part of the implementation of an electronic payment between the "Internet store" and the "acquiring bank"?

A) request for payment for the goods;

B) entering card data;

C) delivery of goods;

D) transfer of funds

11. What operations are performed as part of the implementation of an electronic payment between the "buyer" and the "electronic payment system"?

A) request for payment for the goods;

B) entering card data;

C) delivery of goods;

D) transfer of funds.

12. What operations are performed as part of the implementation of an electronic payment between the "electronic payment system" and the "acquiring bank"?

A) request for payment for the goods;

B) authorization;

C) delivery of goods;

D) transfer of funds.

13. Which of the following corresponds to the model B2B = = Business-to-Business (“company – company”)?

A) the activity is aimed at direct sales to the consumer;

B) two companies conduct business transactions using the Internet;

C) a type of activity in which the state acts as a seller or buyer, transactions are carried out using the Internet;

D) interaction of consumers through Internet exchanges.

14. Which of the following corresponds to the model B2C = Business-to-Consumer (“company-consumer”)?

A) the activity is aimed at direct sales to the consumer;

B) two companies conduct business transactions using the Internet;

C) a type of activity in which the state acts as a seller or buyer, transactions are carried out using the Internet;

D) interaction of consumers through Internet exchanges.

15. Which of the following corresponds to the model B2G = Business-to-Government (“company – state”)?

A) the activity is aimed at direct sales to the consumer;

B) two companies conduct business transactions using the Internet;

C) a type of activity in which the state acts as a seller or buyer, transactions are carried out using the Internet;

D) interaction of consumers through Internet exchanges.

16. Which of the following corresponds to the model E2E = Exchange-to-Exchange (“exchange – exchange”)?

A) the activity is aimed at direct sales to the consumer;

B) two companies conduct business transactions using the Internet;

C) a type of activity in which the state acts as a seller or buyer, transactions are carried out using the Internet;

D) interaction of consumers through Internet exchanges.

Topic 4
Electronic financial structures of the market

The main electronic financial structures include:

– online banking;

– online insurance;

– online trading.

Internet banking is a technology of remote banking services that provides access to accounts and transactions with accounts, provided at any time and from any computer connected to the Internet.

Internet banking services:

– account statements;

– providing information on deposits, loans, and banking products.

– applications for opening deposits, obtaining loans, bank cards ;

– internal bank transfers;

– transfers to accounts in other banks;

– payment for services.

– conversion of funds;

– personal account for managing services.

Banks are constantly expanding their capabilities in providing monetary services to customers. The widespread introduction of the Internet has made it possible to reduce the distance between the bank and the client, manufacturers and consumers of banking services, differentiating work depending on the client's preferences.

The security of Internet banking is ensured by confirming transactions with one-time passwords.

For the opportunity to use and manage your own accounts and deposits through the Internet banking system, the bank charges a commission, the amount of which depends on the selected client-bank program.

For the first time, Internet banking appeared in the United States. In the middle of 1980 (one thousand nine hundred and eighty), a home banking system using an ordinary telephone line was introduced. Later, depositors and customers of US banks used all the possibilities of the Internet.

The first virtual bank was created in 1994 (one thousand nine hundred and ninety-four). But the population did not trust the bank The bank, which managed to reach customers and make the Internet banking offer commercial, became the largest monetary institution in the United States-Bank America. This happened in 2001 (two thousand the first year). And after a couple of years, the E-banking technology becomes in demand among fifty percent of the population of developed countries.

Online trading is a way to access trading on a currency, stock or commodity exchange using the Internet. Modern market participants, thanks to the Internet, use the electronic trading system to execute transactions, and investors have direct access to quotes.

Three hundred years ago, bidders had to gather in the buildings of the stock exchanges. The beginning of the twentieth century was marked by the ability to conclude transactions over the phone.

Access to trading is always provided by the broker. It provides its clients with software for interacting with the exchange for trading and provides technical support to users.

Advantages of online trading in the securities market:

• Trading orders are sent to the exchange instantly.

• In real time, a trader can monitor open positions and their financial results.

• A trader can conduct technical analysis, track trading volumes, price changes and other information.

• It is convenient to receive information and make transactions via the Internet when it is stable and high-speed.

• A wide range of trading strategies and analysis tools that can be used online.

Personal qualities of the trader's character:

• They tend to perform operations independently.

• They want to make investment decisions consciously, are ready to bear financial risks and be responsible for the consequences.

• They regularly study trading skills, look for new information and are ready to learn.

• They find time to study and test other people's investment ideas.

• They tend to be self-disciplined.

• All these qualities allow you to spend hours analyzing the market.

Online insurance – ordering an insurance policy directly through the insurance company's website or an insurance intermediary, which includes the selection of an insurance product, calculation of the tariff and the insured amount, payment, organization of property inspection and delivery of the policy.

An insurance product is a materialized means of insurance protection. It includes an insurance contract and an insurance certificate (policy), a “green card”, a pension contract.

Offers of online insurance companies:

– comparative calculation for one or different insurance offers with the possibility of only an online application;

– comparative calculation of one or different insurance offers with the possibility of online application and payment;

– comparative calculation of one or different insurance offers with the possibility of online application, payment and organization of a meeting with an agent of an insurance company;

– comparative calculation of one or different insurance offers with the possibility of online application, payment, organization of a meeting with an agent of the insurance company to inspect the property, if required, and with the delivery of the policy directly to the policyholder.

The procedure for issuing an insurance policy via the Internet:

– choose an insurance product of one or more insurance companies (for comparison);

– according to the best offer, calculate the insurance rate, the insurance amount, as well as the cost of additional services;

– place an order by filling out the suggested forms;

– transfer the insurance premium to the insurer using an electronic payment, bank card, electronic money or other methods;

– meet with an agent to inspect the property and issue a policy, or get a ready-made insurance policy by courier or by mail.

Let's consider financial network structures on the example of **network marketing.** Network Marketing = Multi-level marketing

Network marketing is a system of selling goods and services with the involvement of independent distributors who sell goods to customers, as well as recruit new distributors and receive a percentage of sales of new distributors.

The essence of network marketing: the company offers to become a distributor and distribute the products or services that it produces, as well as attract other people as distributors, create a distribution network (a person receives income not only from his sales, but also from the sales of people whom he attracted to this business, made distributors).

Distributors get in touch with potential buyers, organize thematic master classes, create groups in social networks. They attract not only customers, but also new sellers of the product. Each of the lower-level consultants, in turn, can organize their own team. This is how the company forms a multi-level network of distributors.

Sellers do not get a job in the company, but work as independent entrepreneurs. They don't have a stable salary. The company provides the distributor with products, advertising materials, training and trainings that help to competently offer products to customers. The created network is registered in the company's computer, and the distributor can control it through a virtual office on the Internet, which is provided by the company.

Methods of effective network marketing on the Internet:

– maintaining your own personal website or blog, in which the distributor acts as a specialist in this field;

– contextual advertising;

– attracting potential partners through social services, such as In contact, Facebook;

– maintaining mailing lists.

Reasons for the popularity of network marketing:

• Such a business is easy to start. No specific knowledge or work experience is required.

• Minimum start-up capital.

• Free work schedule.

• Entrepreneurship training. Companies that promote network business train distributors in sales and communication.

With the advent and development of the Internet, new services appear:

– providing access to Network services. Business of communication companies;

– services for the development and placement of web pages on the Internet. The services are offered by ISP-providers, advertising agencies, specialized firms engaged in web design, individuals with relevant skills and education;

– advertising on the Web.

The possibilities of the Internet for all promotion of goods and services:

– conducting marketing research;

– advertising of goods and services;

– implementation of sales;

– after-sales customer support.

Marketing research on the Internet – research activities aimed at meeting the information and analytical needs of marketing, carried out using Internet technologies.

Conducting marketing research on the Internet is associated with the systematic collection, processing, accumulation and analysis of data that characterize the external marketing environment – trends in the development of the market, consumers, competitors, suppliers.

Methods of data collection during marketing research:

– online surveys (user survey);

– interview;

– focus groups.

Internet Survey forms:

– e-mail-mailing lists aimed at a certain category of consumers of a particular product;

– placement of questionnaires on the websites of companies (they are visited by representatives of target audiences);

– teleconferences (suggestions for filling out questionnaires).

Interview

In the online mode, it is proposed to answer several questions in a detailed form. Online chats, video chats and email chats are used for conducting interviews.

Focus group

This is a type of sociological research that determines the motives that encourage consumers to choose a particular product. The main form of conducting is an in-depth interview that allows you to identify representatives of the target audience. The research concerns the product (its characteristics), packaging, brand, form of advertising and other aspects.

Advantages of Internet marketing

• The breadth of coverage of respondents with their geographical remoteness.

• Relatively low cost of research; High speed of research.

• maginary anonymity of the participants.

Online advertising of goods and services is carried out by creating advertising sites, contextual advertising, blogs.

Advantages of advertising on the Internet

1. Interactivity.
2. Constantly growing audience reach.
3. High recoil rate.
4. The ability to promote your products only for the target audience.
5. Easy to measure the efficiency.

Online sales are a convenient format for interaction between buyers and sellers. For buyers, online sales removes geographical barriers (you can buy from other cities or even countries) and allows you to save time on searching and paying for the right product. For sellers, it opens up unlimited opportunities to simultaneously serve a huge number of customers 24 (twenty-four) hours a day.

After-sales customer service it is carried out with the help of online consultations, receiving applications and questions about repairs, providing the client with information about new products, instructions in electronic form.

A **virtual bank** is a financial organization that operates, unlike conventional banks, via the Internet. It has reliable systems for protecting its accounts and customer accounts.

Advantages of a virtual bank:

• Using virtual banks saves time, there is no need to stand in bank queues.

• Payment of any invoice is carried out around the clock, and quickly gets to the account.

• It is convenient to track all types of monetary transactions on bank cards, debiting any amount from the account, or replenishment.

Any private banker or other authorized person can organize a virtual bank.

How to become a virtual bank client using special services and programs:

• the virtual bank client registers his passport data and identification code;

• the director of the bank signs the contract with an electronic signature;

• the contract is sent by e-mail.

Virtual Bank security System

It is designed to protect all electronic bank accounts from unauthorized access to an electronic page, from its hacking and withdrawal of funds from the account.

Means of protection:

– a card with a variable of one-time or multiple passwords (as soon as you log in, it asks for an individual password);

– cryptographic keys (a special password is sent to the mobile phone specified during registration, which is entered into the system);

– a token (with the use of a thumbprint, access to all personal data is made).

Electronic Stock Market = (equals**) Internet Stock Exchange**

The Internet stock Exchange is a trading platform that provides the necessary conditions for the normal circulation of securities on the Internet.

Subjects of electronic exchange trading: financial contracts, stocks, bonds, loans, currency, interest rates.

Stock market participants:

• **Issuers** are those who issue securities (shares, bonds) into circulation. Issuers are professional participants of the stock market.

• **Investors**-sell and re-buy securities issued by issuers.

• **Professional bidders-make** transactions with securities, buy, sell, conclude transactions with stock assets. There are dealers and brokers.

• **Dealers** sell and buy assets on their own behalf.

• **Brokers** perform operations on behalf of the client (investor).

• **Organizers and supervisors** of the stock market-determine the rules of trading and actions of other participants.

The figure shows the scheme of the traditional stock market (Fig. 1).

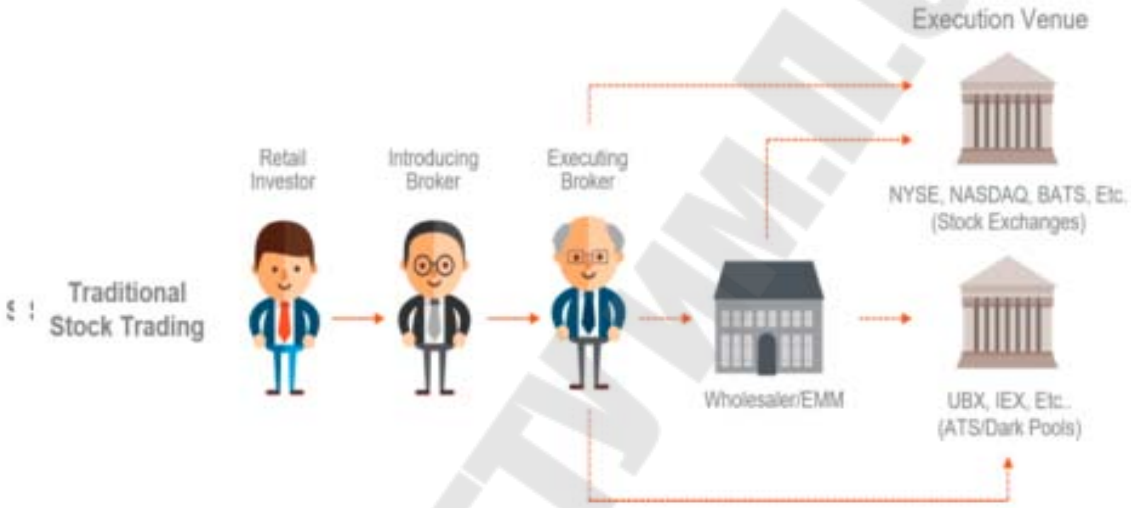

Fig. 1. Traditional stock market

Algorithms for conducting transactions on the exchange:

1. The investor chooses an exchange.

2. The investor chooses a broker.

3. The investor and the broker conclude a contract, prescribe the rights, obligations, key points of the relationship.

4. The broker opens a brokerage account for the client.

5. The investor replenishes this account with his own funds.

6. The investor gives instructions to the broker to purchase certain assets through special computer programs or mobile applications.

7. After receiving the order, the broker makes sure that there are enough funds on the client's account and buys the necessary assets.

8. Information about the purchase is registered in a special depository in the name of the investor. He becomes the owner of the purchased assets.

9. When the client gives an instruction to sell shares (bonds), the broker checks their availability with the client, finds a buyer and conducts a transaction.

10. The money from the sale is credited to the client's brokerage account.

Components of the electronic exchange system:

• The workstation of the trading participant (trader) (Trader Station). With the help of it, brokers participate in trading, receiving market information and entering their buy or sell orders into the system.

• Communications Link – a means for carrying out a dialogue between the broker and the central exchange.

• Central Exchange system (Central Exchange System). Provides all market information and execution of brokers' orders.

Test questions on the topic N 4
Electronic financial structures of the market

1. Which of the above does NOT apply to electronic financial structures of the market?

A) online insurance;

B) online trading;

C) online store;

D) Internet banking.

2. Which of the above does NOT apply to Internet banking services?

A) internal bank transfers;

B) delivery of the goods;

C) payment for services;

D) transfers to accounts in other banks.

3. Which of the above corresponds to the full definition of the concept of "Internet banking"?

A) remote banking technology that provides access to accounts;

B) remote banking technology, which provides access to accounts and account transactions, provided at any time and from any computer connected to the Internet;

C) banking service technology that provides access to accounts and account transactions provided from any computer connected to the Internet;

D) remote banking technology, which provides access to accounts and account transactions, provided at any time.

4. Which of the above corresponds to the full definition of the concept of "Internet trading"?

A) a way to access trading on a currency, stock or commodity exchange using the Internet;

B) the method of access to trading on the currency exchange using the Internet;

C) a way to access trading on the stock exchange using the Internet;

D) the method of access to trading on the commodity exchange using the Internet.

5. Which of the above corresponds to the full definition of the concept of "Internet insurance"?

A) interactions between insurance companies arising on the Internet;

B) interactions between the insurance company and the client arising from the sale of the insurance product and its maintenance and performed on the Internet;

C) interaction between clients of insurance companies on the Internet;

D) interactions between the insurance company and the client arising during its service and performed on the Internet.

6. Which of the above corresponds to the full definition of the concept of "network marketing"?

A) a system for the sale of goods and services involving independent distributors who sell goods to customers and receive a percentage of the sales of new distributors;

B) a system of selling goods with the involvement of independent distributors who sell goods to customers, as well as recruit (recruit) new distributors and receive a percentage of sales of new distributors

C) a system of selling services with the involvement of independent distributors who sell goods to customers, as well as recruit (recruit) new distributors;

D) the system of selling goods and services with the involvement of independent distributors who sell goods to customers, as well as recruit (recruit) new distributors and receive a percentage of sales of new distributors the system of selling goods and services with the involvement of independent distributors who sell goods to customers, as well as recruit (recruit) new distributors and receive a percentage of sales of new distributors.

7. Which of the above does NOT apply to the benefits for the organizers of the virtual bank?

A) the need to have a large staff;

B) saving on office rent;

C) there is no need to have maintenance personnel to clean the premises;

D) no need to keep a large staff and pay for their work.

8. Which of the above is NOT a component of the "electronic exchange system"?

A) internet banking;

B) the workstation of a member of the exchange – a trading participant (trader);

C) central exchange system;

D) the communication line is a means for dialogue between the broker and the central exchange.

9. Which of the above does NOT apply to the advantages of an electronic exchange?

A) the possibility of conducting trading operations at any time of the day;

B) low transaction costs;

C) Confidentiality;

D) high transaction costs.

10. Which of the above refers to the disadvantages of the electronic exchange?

A) 1. The investor chooses an exchange. 2. The money from the sale is credited to the client's brokerage account. 3. The investor and the broker conclude a contract, prescribe the rights, obligations, key points of the relationship. 4. The broker opens a brokerage account for the client. 5. The investor replenishes this account with his own funds. 6. The investor gives instructions to the broker to purchase certain assets through special computer programs or mobile applications. 7. After receiving the order, the broker makes sure that there are enough funds on the client's account and buys the necessary assets. 8. Information about the purchase is registered in a special depository in the name of the investor. He becomes the owner of the purchased assets. 9. When the client gives an instruction to sell shares (bonds), the broker checks their availability with the client, finds a buyer and conducts a transaction. 10. The investor chooses a broker.

B) 1. The investor gives instructions to the broker to purchase certain assets through special computer programs or mobile applications. 2. The investor chooses a broker. 3. The investor and the broker conclude a contract, prescribe the rights, obligations, key points of the relationship. 4. The broker opens a brokerage account for the client. 5. The investor re-

plenishes this account with his own funds. 6. The investor chooses an exchange. 7. After receiving the order, the broker makes sure that there are enough funds on the client's account and buys the necessary assets. 8. Information about the purchase is registered in a special depository in the name of the investor. He becomes the owner of the purchased assets. 9. When the client gives an instruction to sell shares (bonds), the broker checks their availability with the client, finds a buyer and conducts a transaction. 10. The money from the sale is credited to the client's brokerage account

C) The investor chooses an exchange. 2. The investor replenishes this account with his own funds. 3. The investor and the broker conclude a contract, prescribe the rights, obligations, key points of the relationship. 4. The broker opens a brokerage account for the client. 5. The investor chooses a broker. 6. The investor gives instructions to the broker to purchase certain assets through special computer programs or mobile applications. 7. After receiving the order, the broker makes sure that there are enough funds on the client's account and buys the necessary assets. 8. Information about the purchase is registered in a special depository in the name of the investor. He becomes the owner of the purchased assets. 9. When the client gives an instruction to sell shares (bonds), the broker checks their availability with the client, finds a buyer and conducts a transaction. 10. The money from the sale is credited to the client's brokerage account

D) 1. The investor chooses an exchange. 2. The investor chooses a broker. 3. The investor and the broker conclude a contract, prescribe the rights, obligations, key points of the relationship. 4. The broker opens a brokerage account for the client. 5. The investor replenishes this account with his own funds. 6. The investor gives instructions to the broker to purchase certain assets through special computer programs or mobile applications. 7. After receiving the order, the broker makes sure that there are enough funds on the client's account and buys the necessary assets. 8. Information about the purchase is registered in a special depository in the name of the investor. He becomes the owner of the purchased assets. 9. When the client gives an instruction to sell shares (bonds), the broker checks their availability with the client, finds a buyer and conducts a transaction. 10. The money from the sale is credited to the client's brokerage account.

Topic 5
Legal aspects of e-business

Directive of the European Parliament and of the Council of the European Union "On some legal aspects of information services in the domestic market, in particular, on e-commerce" was adopted in Luxembourg on 08.06.2000 (on the eighth of June of the two thousandth year). This is an important step in the formation of European e-commerce law. In electronic contracts in the European Union, it defines a common basis for the use of electronic signatures.

The main provisions of the Directive

• Directive seeks to contribute to the proper functioning of the internal market by ensuring the free movement of information society services between the Member States.

• Each Member State shall ensure that the information society services provided by a service provider established on its territory comply with the national provisions applicable in the Member State in question which fall within the coordinated field.

• Member States shall ensure that the service provider shall render easily.

• Member States shall ensure that their legal system allows contracts to be concluded by electronic means.

• Member States shall ensure that, in the event of disagreement between an information society service provider and the recipient of the service, their legislation does not hamper the use of out-of-court schemes, available under national law, for dispute settlement, including appropriate electronic means.

• Member States shall have adequate means of supervision and investigation necessary to implement Directive effectively and shall ensure that service providers supply them with the requisite information.

• Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with Directive.

• Directive is addressed to the Member States.

Principles of using electronic signature and certification.

▪ Electronic signature – information in electronic form, which is attached to other information in electronic form, used to identify the person signing the information.

▪ An electronic signature acts as an analogue of a person's personal signature. An electronic document (income declaration, tax declaration)

signed with an electronic signature acquires the same force as a paper version with a personal handwritten signature. Electronic signature allows you to save time and effort for personal treatment. You can send signed documents from home.

To put an electronic signature, you need to have a key (it looks like a regular USB flash drive, connected to a computer via a USB connector). An electronic signature is a unique set of characters that is issued as a result of cryptographic transformation of information using a key and using a specially created complex algorithm.

In Germany, the law on electronic signature has been in force since 1997(one thousand nine hundred and ninety-seventh year), in the USA and Austria – since 2000(two thousandth year), in Estonia – since 2001 (two thousand first year). In Estonia, electronic signature is widespread everywhere, citizens of this country over the age of 15 (fifteen) are required to have an ID card.

The electronic signature consists of two main parts:

• A public key, aka a certificate.

• The private key is the cryptographic part.

• Using a private key accessible only to the owner, the document is encrypted.

• The private key contains a mechanism by which it can encrypt documents.

• With the help of a certificate available to everyone, the document is decrypted.

• The certificate contains information about the owner, about the certifying center, the validity period of the electronic signature. The certificate acts as the main carrier of information about the electronic signature.

To encrypt and sign documents, it is not enough just to have a certificate and a private key, you need to install special programs to work. With the help of these programs, which work according to a certain encryption standard, the connection of the private and public keys with documents is ensured.

Stages of signing the document:

1. The hash of the document is encrypted using a private key.
2. The received signature is added to the document.
3. A verification certificate is attached to the document.
4. It is impossible to replace the certificate

You can purchase a qualified electronic signature only at an accredited certification center.

Test questions on the topic N 5
Legal aspects of e-business

1. Which of the above does NOT correspond to the purposes and scope of Directive 2000/31/EC (article one of the directive)?

A) the directive applies to the field of taxation;

B) directive seeks to contribute to the proper functioning of the internal market by ensuring the free movement of information society services between the Member States;

C) directive approximates national provisions on information society services relating to the internal market, the establishment of service providers, commercial communications, electronic contracts, the liability of intermediaries, codes of conduct, out-of-court dispute settlements, court actions and cooperation between Member States;

D) this Directive complements Member States law applicable to information society services without prejudice to the level of protection for, in particular, public health and consumer interests.

2. **Which of the above corresponds to the definition of "information service provider" (from the position of the Directive of the European Union 2000/31/EC) (article two of the directive)?**

A) any natural person who is acting for purposes which are outside his or her trade, business or profession;

B) a service provider who effectively pursues an economic activity using a fixed establishment for an indefinite period;

C) any natural or legal person who, for professional ends or otherwise, uses an information society service, in particular for the purposes of seeking information or making it accessible;

D) any natural or legal person providing an information society service;

3. Which of the above corresponds to the definition of "established service provider" (from the position of the Directive of the European Union 2000/31/EC) (article two of the directive)?

A) any natural person who is acting for purposes which are outside his or her trade, business or profession;

B) a service provider who effectively pursues an economic activity using a fixed establishment for an indefinite period;

C) any natural or legal person who, for professional ends or otherwise, uses an information society service, in particular for the purposes of seeking information or making it accessible;

D) any natural or legal person providing an information society service;

4. Which of the above corresponds to the definition of "recipient of the service" (from the position of the Directive of the European Union 2000/31/EC) (article two of the directive)?

A) any natural person who is acting for purposes which are outside his or her trade, business or profession;

B) a service provider who effectively pursues an economic activity using a fixed establishment for an indefinite period;

C) any natural or legal person who, for professional ends or otherwise, uses an information society service, in particular for the purposes of seeking information or making it accessible;

D) any natural or legal person providing an information society service;

5. **Which of the above does NOT apply to the requirements for commercial communication (from the position of the Directive of the European Union 2000/31/EC) (article six of the directive)?**

A) promotional offers shall be clearly identifiable as such, and the conditions which are to be met to qualify for them shall be easily accessible and be presented clearly and unambiguously;

B) the natural or legal person on whose behalf the commercial communication is made shall be clearly identifiable;

C) commercial communication should not be clearly defined as such;

D) promotional competitions or games shall be clearly identifiable as such, and the conditions for participation shall be easily accessible and

be presented clearly and unambiguously.

6. To which contracts does the European Union Directive 2000/31/EC apply (article nine of the directive)?

A) contracts that create or transfer rights in real estate;

B) contracts of suretyship granted and on collateral securities furnished by persons acting for purposes outside their trade, business or profession;

C) contracts that establish or transfer the rights to own goods and receive services;

D) contracts governed by family law or by the law of succession.

7. **What does NOT apply to the principles of placing an order through technological means of communication (from the position of the Directive of the European Union 2000/31/EC) (article eleven of the directive)?**

A) the service provider has to acknowledge the receipt of the recipient's order without undue delay and by electronic means;

B) the service provider does not have to confirm receipt of the recipient's order;

C) an order is considered received when it is available to the party to which it is addressed;

D) confirmation of receipt of the order is considered received when it is available to the party to whom it is addressed.

8. Which of the above does NOT apply to the stages of signing documents with an electronic digital signature?

A) the hash of the document is encrypted using a private key;

B) the received signature is added to the document;

C) a verification certificate is attached to the document;

D) the hash of the document is encrypted using a verification certificate

9. Which of the following does NOT apply to the functions and content of the electronic digital signature certificate?

A) the certificate contains information about the validity period of the electronic signature;

B) with the help of a certificate, the document is encrypted.

C) the certificate contains information about the certifying center, the validity period of the electronic signature;

D) the certificate contains information about the owner of the signature.

10. Which of the above does NOT correspond to the characteristics of an "electronic signature"?

A) an electronic signature is information in electronic form that is attached to other information in electronic form, used to identify the person signing the information;

B) an electronic signature acts as an analogue of a person's personal signature;

C) an electronic document signed with an electronic signature has no legal force.

D) an electronic signature is a set of characters that is issued as a result of cryptographic transformation of information using a key.

Topic 6
Electronic document management

In practice, organizations use scanning paper documents and sending them by e-mail (fax). This is how contracts are signed and correspondence is conducted. In addition, organizations create, coordinate and sign documents electronically.

Electronic document management is a way of organizing document management, in which all documents or documents of certain classes in one organization or in a corporate system are **presented electronically** and stored centrally. This is a movement in the organization of documents in electronic form from the moment they are received or created until the completion of execution, and referral to cases.

Options for organizing an electronic document management system

The **first** is to conclude an agreement on electronic document management with counterparties and exchange documents signed with an electronic signature via e-mail. In this case, you can use a simple electronic signature.

The **second** is to organize electronic document flow through a special operator. With this method, the company joins the regulations for the exchange of electronic documents and can exchange documents with counterparties.

Functions of the electronic document management system document

- registration;
- document execution control;
- creating directories and working with them;
- control of the movement of paper and electronic documents, maintaining the history of work with documents;
- creating and editing document details;
- formation of reports on the document flow of the enterprise;
- importing documents from the file system and the Internet;
- creating a document directly from the system based on a template (direct integration);
- working with document versions, complex multi-component and multi-format documents, attachments;
- electronic distribution of documents;
- working with documents in folders;

- obtaining documents through scanning and recognition.
- reducing the costs of accessing information and processing documents.

Electronic document is a document signed with an electronic signature.

The organization determines the list of electronic documents independently. If there are no established conditions for storing documents in electronic form in the archive of the organization, then it is necessary to create original documents on paper.

The transition to electronic document management without the use of an electronic signature, it is necessary to ensure the availability of software tools that allow identifying the person who signed the document.

The procedure for the formation and registration of electronic files:

Electronic files are formed and processed taking into account the general rules established for paper documents.

The organization develops schemes for the placement and procedure for passing documents in electronic form and their projects. The development of these schemes is carried out on the basis of the nomenclature of the organization's affairs. In it, in the column “Note” for documents in electronic form, a mark “EF” is made.

Documents in electronic form according to the nomenclature of cases are placed in folders – electronic cases. The name of the electronic case consists of the index of the case and its title in accordance with the nomenclature of the organization's cases. Each electronic case is formed in one calendar year.

The specifics of the formation and registration of electronic files should be reflected in the instructions for the organization's office work.

Hybrid cases in electronic document management

Hybrid cases are cases in which documents are combined in electronic form and on paper. For example, such cases may be “Correspondence on administrative and economic issues”, “Correspondence on accounting and accounting and (or) financial statements”.

In hybrid cases, it is allowed to form documents with a temporary shelf life (up to 10 years). It is unacceptable to form permanent and temporary (over 10 years) storage documents in hybrid cases

Is it possible to destroy a paper document if it has been transferred to an electronic form?

The paper document is the original. It can be destroyed only after the expiration of the storage periods established for this document.

The original document on paper must be stored and transferred to the archive of the organization according to the rules established in the organization.

Structure of an electronic document

The electronic document consists of two parts:

1) the **general part** is the document itself with all its details, except for the date of the document, the registration index, the resolution, the receipt mark and other details that are formed after signing the document with an electronic signature;

2) the **special part** is the electronic signature of the persons who carried out the approval (approval), signing, approval of the electronic document, as well as the details formed after signing (document date, registration index, etc.). The special part is filled in according to the established rules in the registration and control card of the document and individual files that are an integral part of the corresponding electronic document.

Is it possible to make changes to the document after signing it with an electronic signature?

Making any changes to an electronic document after signing it with an electronic signature makes this document invalid. This distinguishes it from paper documents, for which it is permissible to apply various service marks (for example, registration indexes, stamps, resolutions, performance marks) directly to the document itself.

If an electronic document is approved by employees using an electronic signature, making any changes to it (including correcting spelling errors) after approval will make this agreement invalid.

Storage of documents in electronic form:

The terms of storage of documents in electronic form coincide with the terms established for similar documents on paper.

Attention!

To store documents in electronic form, it is necessary to use special storage facilities, create an established temperature and humidity, light, sanitary and hygienic regime.

Information technology is now rapidly becoming obsolete. Documents in electronic form should remain accessible and reproducible. Especially documents with a shelf life of more than 10 years and permanent storage.

Organizations that transfer documents to the state archives for storage, convert the documents to the required format by the time of transfer to the state archive.

Interdepartmental Document Management System (SIDM)

SIDM is a state system used by state bodies and other organizations for the exchange of electronic documents (documents with an electronic signature).

SIDM can be used not only for the exchange of information with government agencies, but also for the exchange of information between business entities. To do this, these organizations must maintain electronic document flow and be connected to the SIDM.

Introduction of an electronic document management system

In order to operate an electronic document management system, it is necessary:

- develop and approve the procedure for electronic document management;
- appoint those responsible for its management;
- organize an electronic archive of received and sent documents;
- prescribe in the accounting policy the rules for the creation, receipt and storage of electronic documents, appoint those responsible for the formation and signing of electronic documents.
- every employee who is authorized to sign electronic documents must have an electronic signature.

Having created an electronic document management system, an organization can not print documents, but store them in an electronic archive.

Stages of working with electronic document management in the exchange of documentation between companies:

1. An employee of one of the organizations forms a document.
2. The employee must sign it with his electronic signature and send it through the electronic document management system to the recipient.
3. After reviewing the document, the employee of the addressee company affixes his electronic signature, after which the first company will receive a notification. This means that you can proceed with the actions described in the document: start shipping goods, transfer payment. The recipient can reject the document if corrections need to be made to it.

Advantages of electronic document management

– centralized, structured and systematized storage of documents in an electronic archive;

– reduction of costs for printing, mailing and storage of paper documents;

– a unified approach to the procedures for the formation and processing of the document (registration, approval);

– reduction of time for delivery, registration and approval of documents;

– quick signing of documents;

– the ability to perform any operations with documents online around the clock: (search, download, print, reconciliation, rejection, as well as track their movement);

– quick document search;

– the confidentiality of the exchange is ensured by the encryption of documents.

– an electronic digital signature ensures the identification of the person who signed the document and the integrity of the transmitted documents.

– delivery of electronic documents is guaranteed by the document flow operator.

Disadvantages of electronic document management:

• The risk of information loss in case of program failures or malfunctions of the electronic document management operator's service.

• If the company has partners who have not yet switched to electronic document management, it is necessary to conduct a mixed electronic and paper document management, which complicates the work.

• The transition to an electronic document management system is expensive: payment for the connection of an electronic document management system, the purchase of electronic signatures, and the cost of time and money for employee training.

• Now we will watch a video on the operation of the electronic document management system.

Test questions on the topic N 6
Electronic document management

1. Which of the above corresponds to the full definition of "Electronic document management"?

A) a way of organizing document flow, in which part of the documents in one organization or in a corporate system are presented in electronic form and stored centrally;

B) a way of organizing document flow, in which only documents of certain classes in one organization are presented in electronic form and stored centrally;

C) a way of organizing document management, in which all documents or documents of certain classes in one organization or in a corporate system are presented electronically and stored centrally;

D) a way of organizing document flow, in which all documents or documents of certain classes in one organization are stored centrally.

2. Which of the above does NOT apply to the functions of the electronic document management system?

A) registration of documents;

B) increased costs of access to information and document processing;

C) importing documents from the file system and the Internet;

D) electronic distribution of documents.

3. Which of the above does NOT correspond to the order of formation and registration of electronic files?

A) documents in electronic form according to the nomenclature of cases are placed in folders - electronic cases;

B) the organization develops schemes for the placement and procedure for passing documents in electronic form and their projects;

C) electronic files are formed and processed without taking into account the general rules established for paper documents;

D) the specifics of the formation and registration of electronic files should be reflected in the instructions for the organization's office work.

4. Which of the above does NOT correspond to the characteristics of "hybrid cases"?

A) hybrid cases are cases in which only documents in electronic form are combined;

B) hybrid cases are cases in which documents are combined in electronic form and on paper;

C) in hybrid cases, it is allowed to form documents with a temporary shelf life (up to 10 years);

D) it is unacceptable to form permanent and temporary (over 10 years) storage documents in hybrid cases.

5. Which of the above does NOT apply to the structure of an electronic document?

A) a special part;

B) the general part;

C) additional part;

D) there is no correct answer.

6. Which of the above corresponds to the "general part" of the electronic document?

A) this is the electronic signature of the persons who carried out the approval of the document;

B) these are the details generated after signing the document;

C) this is an electronic signature of the document approval;

D) this is the document itself with all its details.

7. Which of the above does NOT correspond to the "special part" of the electronic document?

A) these are the details of the document formed after its signing;

B) this is the text of the document;

C) this is an electronic signature;

D) this is obtaining permission to execute a document.

8. Which of the above does NOT correspond to the characteristics of the interdepartmental document management system?

A) it is a state system used by state bodies and other organizations for the exchange of electronic documents;

B) it is a state system used by state bodies and other organizations for the exchange of paper documents;

C) this system can be used for the exchange of information with government agencies, and for the exchange of information between business entities;

D) for the system to work, organizations must maintain electronic document management and be connected to the interdepartmental document management system.

9. Mark the correct sequence of stages of the implementation of the electronic document management system:

A) develop and approve the procedure for electronic document management – appoint those responsible for its management – organize an electronic archive of received and sent documents – prescribe in the accounting policy the rules for the creation, receipt and storage of electronic documents, appoint those responsible for the formation and signing of electronic documents;

B) organize an electronic archive of received and sent documents – develop and approve the procedure for electronic document management – appoint those responsible for its management – prescribe in the accounting policy the rules for the creation, receipt and storage of electronic documents, appoint those responsible for the formation and signing of electronic documents;

C) prescribe in the accounting policy the rules for the creation, receipt and storage of electronic documents, appoint those responsible for the formation and signing of electronic documents – develop and approve the procedure for electronic document management – appoint those responsible for its management – organize an electronic archive of received and sent documents;

D) appoint those responsible for its management – develop and approve the procedure for electronic document management – organize an electronic archive of received and sent documents – prescribe in the accounting policy the rules for the creation, receipt and storage of electronic documents, appoint those responsible for the formation and signing of electronic documents.

10. Which of the above does NOT apply to the stages of working with electronic document management when exchanging documentation between companies?

A) after reviewing the document, the employee of the addressee company affixes his electronic signature, after which the first company will receive a notification;

B) an employee of one of the organizations forms a document;

C) the employee must sign it with his electronic signature and send it through the electronic document management system to the recipient;

D) an employee of the addressee company must organize an electronic archive of received and sent documents.

Topic 7
Internet marketing and its tools

In order to effectively increase the popularity of the product with the target audience, it is necessary to use various tools. It's not enough just to create a page on a social network and fill it with content. Everything affects the success of the campaign: pictures, texts, the frequency of publication of records.

Internet marketing is a set of techniques that help businessmen promote goods and services over the Internet.

Goals of Internet marketing:

1. Increase in sales due to the introduction of e-commerce in the online mode.

2. Online advertising of goods and services in order to increase sales in traditional ways.

3. Reducing the costs of doing business.

4. Creating a positive modern image.

5. Creation of information databases.

6. Provision of new services.

7. Collecting information about the market, updating marketing databases.

The basis of Internet marketing is the company's website. It should reflect everything that the organization seeks to convey to the client.

Tasks of Internet marketing:

– promotion of the company (branding, increasing awareness, creating an image and positive attitude of consumers, increasing the coverage and dissemination of brand information through media channels);

– work on sales (increasing sales volumes offline, via the Internet, bringing new products to the market).

The use of the Internet has new features and advantages compared to traditional marketing.

Features of Internet marketing:

1. Transition of the key role from producers to consumers.

The Internet has provided companies with the opportunity to attract the attention of a new customer in tens of seconds spent in front of a computer screen. He also gave the user the opportunity to go to any of the competitors in a few mouse clicks. In such a situation, the attention of customers becomes the greatest value, and established relationships with customers are the main capital of companies.

2. Globalization of activities and reduction of transaction costs

The Internet is a means of communication without territorial restrictions. The cost of access to information does not depend on the distance.

The Internet provides an opportunity to reduce the time spent searching for partners, making decisions, and executing transactions.

Information and services on the Internet are available around the clock. The Internet makes it easy to make changes to the information provided, to keep it up-to-date without time delay and distribution costs.

The effects of the Internet lead to a reduction in transaction costs. **Transaction costs** are associated with the establishment and maintenance of interaction between the company, its customers and suppliers. The cost of communications via the Internet, in comparison with traditional means, becomes minimal, and their functionality and scale increase.

3. Personalization of interaction and transition to one–to-one marketing.

Through the Internet, companies can receive detailed information about the requests of each customer and automatically provide products and services according to individual requirements.

For example, a personal presentation of the website for each of the company's clients or partners.

4. Reduction of transformation costs.

The reduction of transformation costs is achieved by optimizing the choice of the structure of the product range, reducing the time for the development and introduction of new products, a reasonable pricing policy, reducing the number of intermediaries, and sales costs.

Internet marketing tools:

- Contextual advertising.
- Banner advertising.
- Advertising on social networks
- E-mail mailing lists.
- Lead generation.
- Retargeting.
- Real-time auction.

Contextual advertising

Contextual advertising is a variety of ads (text, graphic, video) that are shown to users in accordance with their search queries, interests or behavior on the Internet. Contextual advertising is placed in search engines, on various websites, in mobile applications and on other resources.

This type of advertising is called search advertising.

Contextual advertising

The **main elements** are the title, the ad text and the link to the site (Fig. 2).

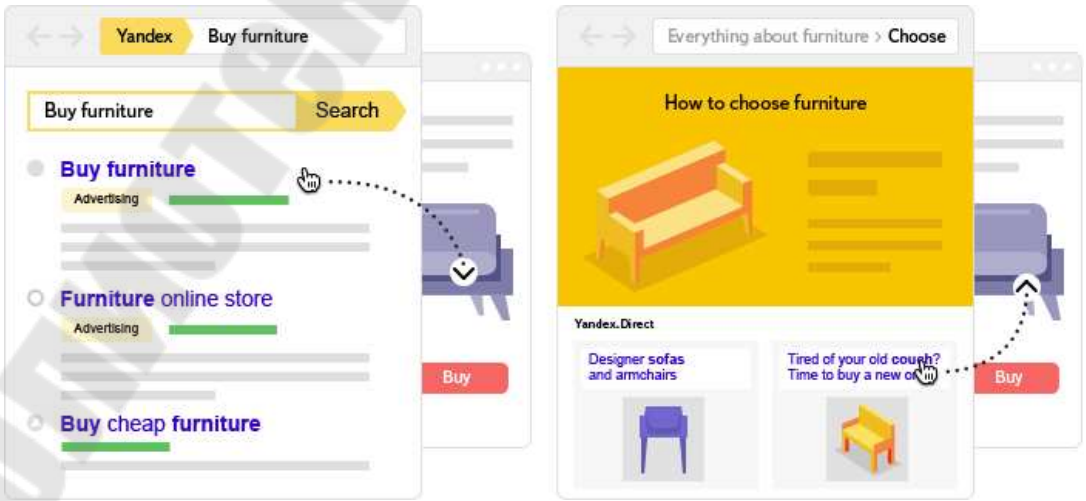

Fig. 2. Main elements: title, ad text, link to the site

Advantages of context:

– addressing the target audience directly;

– instant visibility in the search engine;

– there is no mandatory condition for optimizing the site for search engines;

– the ability to manage an advertising campaign and budget – the budget is determined by the client himself.

Disadvantages of the context:

– low appeal to advertisements (appeals depend on the subject of the site);

– the obsession of advertising;

– there is no fixed cost of displaying ads.

Contextual advertising is managed using special interfaces where ads and keywords are created and operational management of advertising campaigns takes place. The most popular contextual advertising management systems are:

1. Yandex. Yandex.Direct is a system that allows you to place advertisements on the Yandex search platform and on sites where ads are displayed by automatically determining the meaning of pages.

2. Google AdWords is a system for displaying contextual ads on the Google search platform, where ads are displayed by automatically determining the meaning of pages.

Banner advertising

Banner advertising – advertising messages in the form of static and dynamic (animated) images (gif or flash banners) located on the pages of various sites – large portals or media sites for the promotion of goods, services of the company or brand promotion.

Banner advertising is one of the most popular and effective tools for conducting an advertising campaign.

The banner is placed on a web page and has a hyperlink to the server of the advertised company.

Banner advertising methods:

1) banner exchange under an agreement with the owner of another web server or web page. It is practiced with pages that have similar topics;

2) using banner systems, search servers, directories or popular servers to display banners on their web pages for a fee;

3) the use of special banner exchange services (Banner Exchange Services), which ensure their display on the pages of a large number of sites, from among the subscribers of this service.

Advantages of banner advertising:

– advertising is able to influence emotions, a person;

-banners are well remembered;

– allow you to reach a massively large audience where the banner is placed;

– allows you to generate demand for new, original, innovative services or products.

Disadvantages of banner advertising:

– high cost;

– low conversion of visitors to customers.

Factors of banner advertising effectiveness:

– the nature of the user's interaction with the environment;

– the speed of the Internet network;

– design of the page where the banner is placed;

– the number of banner impressions to the same user,

– the speed of changing images in animated banners.

E-mail mailing

E-mail mailing lists are letters sent by e-mail with an advertising character.

Advantages:

– the possibility of selecting the target audience by the nature of the activity and by geographical location.

Disadvantage:

– obsession and a high probability of falling under spam filters of mail systems. Therefore, the addressee does not read the letters.

Types of e-mail newsletters:

1. **Notification** is a letter through which the customer can learn about new products and services and use them. This newsletter is designed to increase sales. It contains a brief description of the company’s offer and a link to the website page where you can place an order.

2. An **electronic newspaper** is regularly delivered letters that are designed according to the same pattern and contain a lot of educational information, professional advice, master classes, market news. This newsletter helps to increase customer awareness about the brand, its products and services.

For maximum effect, a combination of both types of informational letters is recommended.

Methods of advertising via email:

• Sending out individual letters. A time-consuming and inconvenient way.

Rules for writing individual letters:

– the letter should begin with a direct appeal to a person by name;

– the letter must contain the reason for the request;

– it is desirable to compose the content of the letter in the form of a proposal useful to a specific recipient;

– there should be only one address in the recipient's line, each letter should be sent individually;

– the letter must be signed, it must contain contact information.

• Mailing list. Companies buy specially created lists of e-mail addresses for mass mailing of their messages.

Social Media Marketing

Social Media Marketing (SMM) - this is the promotion of a website, product, service in social networks.

Promotion should be professional, so that it is not perceived as spam.

When using SMM, you need to develop the content of the site so that it is interesting for visitors and causes a desire to read more, ask questions, vote, fill out questionnaires.

Social Media Marketing (SMM) is divided into four areas:

– promotion in social networks;

– ocial media reputation management;

– customer support in social networks;

– monitoring of social networks.

Social media promotion is the dissemination of information about a brand or product. Promotion in social networks requires the creation of a community (brand platform) and the organization of live communication of representatives of the target audience of the brand in it.

Promotion in social networks is used if necessary:

– to bring a new product or service to the market, to express their advantages (price, quality, design);

– increase awareness of the existing brand.

Social media promotion is used to advertise mass products (for example, coffee, shampoo), well-known brands whose audience is ready to communicate on social networks.

Promotion in social networks increases the awareness of the company.

Social Media Reputation Management – this is collecting feedback from the audience, responding to comments and influencing public opinion.

Reputation management helps:

– smooth out the negative towards the brand;

– to correct the existing image of the company, product or service.

With the help of reputation management, you can gain the trust of dissatisfied customers.

In order to respond to the negative about the brand, it is necessary to monitor trading platforms in various social networks and blogs.

Customer support in social networks is the organization of mass consultations of clients in social network communities.

Customer support is needed to:

– to give clients consultations on the territory convenient for them;

– reduce the cost of the call center and customer service by directing customers to the brand platform in social networks.

Social media monitoring is the collection and analysis of information in social media to develop and adjust the strategy of communication with the audience in social networks.

Monitoring is carried out before starting work on social networks to find out the attitude of the audience to the brand, and is regularly repeated to track changes in indicators.

Lead generation

Lead generation is a work aimed at increasing the "useful" actions performed by the user on the site.

Examples of useful actions:

– filling out a feedback form,

– sending a resume,

– downloading the price list,

– testing.

These actions are called "useful" because they bring a potential customer closer to making a purchase.

A **lead** is a potential client from the target audience.

Lead generation is the collection and classification of information about a possible consumer of targeted goods and services.

These actions are conditionally divided into **passive and active generation**.

Passive leads contain data about users registered on Internet resources who can become customers.

Active leads are data about users who responded to a commercial offer and cooperate with the seller.

Lead generation is effective in promoting complex products and services that require consulting and a long time to make a purchase decision (buying a car, expensive furniture, household appliances, computer programs).

The effect of lead generation is as follows:

1. Formation of correct expectations in the client due to a great awareness of the product and service.

2. Simplification of the work of sales managers, as the client independently gets acquainted with presentation materials.

3. Using the received customer contacts to conduct surveys and notify about current promotions.

Retargeting

Retargeting is an Internet marketing tool that allows you to show ads to those users who have already visited the advertiser's website, but have not made a purchase.

For users from the retargeting list, the following are used:

– personal discounts;

– sales;

– reminder of an incomplete purchase;

– enumeration of the advantages of the service.

Retargeting allows advertisers to display their banner for a specific user based on the characteristics of his behavior on the Internet.

For **example,** if a user visits the advertiser's website and views products A, B and C, then later this user sees banners depicting products A, B and C that he recently viewed.

The effect of retargeting is as follows:

1. Keeping the user's attention to the brand or products and returning it to the site.

2. Saving the advertising budget - showing ads only to those who are already interested in the company, goods, services.

Real-time auction = Real time bidding = (RTB)

RTB is a real-time auction of advertisements.

Three parties are involved in the process:

• Sellers are sites that offer “their territory” for advertising.

• Buyers are advertising systems that represent the interests of advertisers.

• Site visitors - they need to be attracted by advertising.

The task of sellers and buyers of the auction is to demonstrate an ad that corresponds to the history of requests, signs of the user who came to the page.

All operations of the RTB advertising system take place **in real time**.

1. The RTB advertising system, during the process of loading an Internet page by the user, classifies the request to display ads according to the user's parameters.

2. The RTB system transmits this information to advertising networks and receives bids from them at which they are ready to buy this display.

3. The RTB system selects the highest bid among the responses received.

4. The RTB system receives an announcement from the auction winner and transmits it to the user's browser.

Everything seems complicated and confusing, but the whole process is automated and takes a maximum of 120 ms – this is the page loading time.

The main thing is to set all the parameters correctly.

Test questions on the topic N 7
Internet marketing and its tools

1. Which of the above corresponds to the full definition of “Internet marketing”?

A) this is one technique that helps businessmen promote products over the Internet;

B) is a set of techniques that help businessmen promote goods and services over the Internet;

C) this is a set of techniques that prevent businessmen from promoting goods and services via the Internet;

D) this is a set of techniques that help businessmen promote only services via the Internet.

2. Which of the above does NOT apply to the goals of Internet marketing?

A) creation of information databases;

B) reducing the costs of doing business;

C) creating a negative image;

D) online advertising of goods and services in order to increase sales in traditional ways.

3. Which of the above does NOT apply to the tasks of Internet marketing?

A) increasing the coverage and dissemination of information about the company's brand through media channels;

B) increasing the company's awareness;

C) decrease in offline sales;

D) work on sales via the Internet.

4. Which of the above does NOT correspond to the features of Internet marketing?

A) reduction of transformation costs;

B) personalization of interaction and transition to one–to-one marketing;

C) ransition of the key role from producers to consumers;

D) increased transaction costs.

5. Which of the above corresponds to the Internet marketing feature "transition of the key role from producers to consumers"?

A) through the Internet, companies can receive detailed information about the requests of each customer and automatically provide products and services according to individual requirements;

B) the reduction of transformation costs is achieved by optimizing the choice of the structure of the product range, reducing the time for the development and introduction of new products, a reasonable pricing policy, reducing the number of intermediaries, and sales costs;

C) the attention of customers becomes the greatest value, and established relationships with customers are the main capital of companies;

D) the Internet makes it easy to make changes to the information provided, to keep it up-to-date without time delay and distribution costs.

6. Which of the above corresponds to the Internet marketing feature "globalization of activities and reduction of transaction costs"?

A) through the Internet, companies can receive detailed information about the requests of each customer and automatically provide products and services according to individual requirements;

B) the attention of customers becomes the greatest value, and established relationships with customers are the main capital of companies;

C) the reduction of transformation costs is achieved by optimizing the choice of the structure of the product range, reducing the time for the development and introduction of new products, a reasonable pricing policy, reducing the number of intermediaries, and sales costs;

D) the Internet makes it easy to make changes to the information provided, to keep it up-to-date without time delay and distribution costs.

7. Which of the above corresponds to the Internet marketing feature "personalization of interaction and transition to one–to-one marketing"?

A) The reduction of transformation costs is achieved by optimizing the choice of the structure of the product range, reducing the time for the development and introduction of new products, a reasonable pricing policy, reducing the number of intermediaries, and sales costs;

B) Through the Internet, companies can receive detailed information about the requests of each customer and automatically provide products and services according to individual requirements;

C) The Internet makes it easy to make changes to the information provided, to keep it up-to-date without time delay and distribution costs;

D) the attention of customers becomes the greatest value, and established relationships with customers are the main capital of companies.

8. Which of the above corresponds to the Internet marketing feature "reduction of transformation costs"?

A) The Internet provides an opportunity to reduce the time spent searching for partners, making decisions, and executing transactions;

B) the reduction of transformation costs is achieved by optimizing the choice of the structure of the product range, reducing the time for the development and introduction of new products, a reasonable pricing policy, reducing the number of intermediaries, and sales costs;

C) the attention of customers becomes the greatest value, and established relationships with customers are the main capital of companies;

D) Through the Internet, companies can receive detailed information about the requests of each customer and automatically provide products and services according to individual requirements.

9. Which of the above does NOT correspond to the promotion of the company to the market through Internet marketing?

A) decrease in sales via the Internet;

B) creating an image and positive attitude of consumers;

C) branding and increasing company awareness;

D) dissemination of brand information through media channels.

10. Which of the above does NOT correspond to working on sales through Internet marketing?

A) increasing sales volumes offline;

B) increasing sales volumes via the Internet;

C) bringing new products to the market;

D) creating a negative attitude of consumers towards the company.

11. Which of the above corresponds to the full definition of contextual advertising?

A) these are text ads that are shown to users according to their search queries, interests or behavior on the Internet;

B) is a variety of ads (text, graphic, video) that are shown to users in accordance with their search queries, interests or behavior on the Internet.

C) these are graphic ads that are shown to users according to their search queries, interests or behavior on the Internet;

D) these are video ads that are shown to users according to their search queries, interests or behavior on the Internet.

12. Which of the above does NOT apply to contextual advertising elements?

A) a link to the website;

B) the text of the ad;

C) title;

D) search server.

13. Which of the above applies to the benefits of context?

A) the obsession of advertising;

B) instant visibility in the search engine;

C) there is no fixed cost of displaying ads;

D) low appeal to advertisements.

14. Which of the above refers to the disadvantages of the context?

A) there is no mandatory condition for optimizing the site for search engines;

B) addressing the target audience directly;

C) the ability to manage an advertising campaign and budget – the budget is determined by the client himself;

D) the obsession of advertising.

15. Which of the above corresponds to the full definition of "banner advertising"?

A) is a variety of ads (text, graphic, video) that are shown to users in accordance with their search queries, interests or behavior on the Internet;

B) advertising messages in the form of static and dynamic (animated) images located on the pages of various sites – large portals or media sites for the promotion of goods, services of the company or brand promotion;

C) lists are letters sent by e-mail with an advertising character;

D) this is the promotion of a website, product, service in social networks.

16. Which of the above does NOT apply to banner advertising methods?

A) the use of special banner exchange services;

B) using banner systems, search servers, directories or popular servers to display banners on their web pages for a fee;

C) Sending out individual letters;

D) banner exchange under an agreement with the owner of another web server or web page.

17. Which of the above applies to the advantages of banner advertising?

A) high cost;

B) banners are well remembered;

C) the obsession of advertising;

D) low conversion of visitors to customers.

18. Which of the above refers to the disadvantages of banner advertising?

A) high cost;

B) allows you to generate demand for new, original, innovative services or products;

C) advertising is able to influence emotions, a person;

D) allow you to reach a massively large audience where the banner is placed.

19. Which of the above does NOT apply to the factors of banner advertising effectiveness?

A) monitoring of social networks;

B) the speed of the Internet network;

C) the number of banner impressions to the same user;

D) design of the page where the banner is placed.

20. Which of the above corresponds to the full definition of "E-mail mailing"?

A) this is the promotion of a website, product, service in social networks;

B) these are various ads that are shown to users according to their search queries, interests or behavior on the Internet;

C) advertising messages located on the pages of various sites;

D) lists are letters sent by e-mail with an advertising character.

21. Which of the above applies to the advantages of "E-mail mailing"?

A) high cost;

B) the possibility of selecting the target audience by the nature of the activity and by geographical location;

C) the obsession of advertising;

D) low conversion of visitors to customers.

22. Which of the above refers to the disadvantages of "E-mail mailing"?

A) high cost;

B) the possibility of selecting the target audience by the nature of the activity and by geographical location;

C) obsession and a high probability of falling under spam filters of mail systems;

D) low conversion of visitors to customers.

23. Which of the above refers to the types of "E-mail mailing"?

A) banner and context;

B) video announcement and notification;

C) graphic and video ads;

D) notification and electronic newspaper.

24. Which of the following corresponds to the definition of "E-mail notification"?

A) letter through which the customer can learn about new products and services and use them;

B) these are various ads that are shown to users according to their search queries, interests or behavior on the Internet;

C) this is information about a possible consumer of targeted goods and services;

D) these are ads that correspond to the history of consumer requests.

25. Which of the above corresponds to the definition of "electronic newspaper"?

A) this is information about a possible consumer of targeted goods and services;

B) these are various ads that are shown to users according to their search queries, interests or behavior on the Internet;

C) is regularly delivered letters that are designed according to the same pattern and contain a lot of educational information;

D) letter through which the customer can learn about new products and services and use them.

26. Which of the above does NOT comply with the rules for writing individual letters?

A) the letter must contain the reason for the request;

B) several addresses are specified in the recipient's line;

C) the letter must be signed, it must contain contact information;

D) the letter should begin with a direct appeal to a person by name.

27. Which of the above corresponds to the definition of "Social Media Marketing (SMM)"?

A) these are graphic ads that are shown to users in accordance with their search queries, interests or behavior on the Internet;

B) these are video ads that are shown to users according to their search queries, interests or behavior on the Internet;

C) these are text ads that are shown to users in accordance with their search queries, interests or behavior on the Internet;

D) this is the promotion of a website, product, service in social networks.

28. Which of the above does NOT correspond to the areas of work of Social Media Marketing (SMM)?

A) displaying contextual ads on the search platform;

B) social media reputation management;

C) customer support in social networks;

D) monitoring of social networks.

29. Social media promotion helps… (check the correct option)

A) smooth out the negative towards the brand;

B) to give clients consultations on the territory convenient for them;

C) increase awareness of the existing brand;

D) find out the audience's attitude to the brand.

30. Social media reputation management helps... (check the correct option):

A) to correct the existing image of the company, product or service;

B) to give clients consultations on the territory convenient for them;

C) increase awareness of the existing brand;

D) find out the audience's attitude to the brand.

31. Customer support on social networks helps... (check the correct option):

A) to correct the existing image of the company, product or service;

B) reduce the cost of the call center and customer service by directing customers to the brand platform in social networks;

C) increase awareness of the existing brand;

D) find out the audience's attitude to the brand.

32. Social media monitoring helps... (check the correct option):

A) to correct the existing image of the company, product or service;

B) reduce the cost of the call center and customer service by directing customers to the brand platform in social networks;

C) increase awareness of the existing brand;

D) find out the audience's attitude to the brand.

33. Which of the above corresponds to the definition of "lead generation"?

A) these are text ads that are shown to users in accordance with their search queries, interests or behavior on the Internet;

B) this is the promotion of a website, product, service in social networks;

C) is a work aimed at increasing the "useful" actions performed by the user on the site;

D) these are graphic ads that are shown to users according to their search queries, interests or behavior on the Internet.

34. Which of the above does NOT correspond to the effect of "lead generation"?

A) complicating the work of sales managers;

B) formation of correct expectations in the client due to a great awareness of the product and service;

C) simplification of the work of sales managers, as the client independently gets acquainted with presentation materials;

D) using the received customer contacts to conduct surveys and notify about current promotions.

35. Which of the above corresponds to the definition of "retargeting"?

A) this is a work aimed at increasing the "useful" actions performed by the user on the site;

B) formation of correct expectations in the client due to a great awareness of the product and service;

C) is an Internet marketing tool that allows you to show ads to those users who have already visited the advertiser's website, but have not made a purchase;

D) this is the promotion of a website, product, service in social networks.

36. Which of the above does NOT apply to "retargeting" tools?

A) monitoring of social networks;

B) sales;

C) personal discounts;

D) reminder of an incomplete purchase.

37. Which of the above corresponds to the effect of "retargeting"?

A) simplification of the work of sales managers, as the client independently gets acquainted with presentation materials;

B) using the received customer contacts to conduct surveys and notify about current promotions;

C) formation of correct expectations in the client due to a great awareness of the product and service;

D) saving the advertising budget – showing ads only to those who are already interested in the company, goods, services.

38. Mark the correct sequence of operations of the RTB advertising system:

A) 1) system transmits this information to advertising networks and receives from them the rates at which they are ready to buy this display – 2) system classifies the request to display advertising according to the user's parameters during the loading of the Internet page by the user – 3) system selects the highest bid among the responses received – 4) system receives an announcement from the auction winner and transmits it to the user's browser;

B) 1) system classifies the request to display advertising according to the user's parameters during the loading of the Internet page by the user – 2) system transmits this information to advertising networks and receives from them the rates at which they are ready to buy this display – 3) system

receives an announcement from the auction winner and transmits it to the user's browser – 4) system selects the highest bid among the responses received;

C) 1) system classifies the request to display advertising according to the user's parameters during the loading of the Internet page by the user – 2) system transmits this information to advertising networks and receives from them the rates at which they are ready to buy this display – 3) system selects the highest bid among the responses received – 4) system receives an announcement from the auction winner and transmits it to the user's browser;

D) 1) system classifies the request to display advertising according to the user's parameters during the loading of the Internet page by the user – 2) system selects the highest bid among the responses received – 3) system transmits this information to advertising networks and receives from them the rates at which they are ready to buy this display – 4) system receives an announcement from the auction winner and transmits it to the user's browser.

Topic 8
Infocommunication infrastructure of electronic business enterprises

Near our place of residence there are: shops, banks, hospitals, schools, playgrounds. Everything that is necessary for a normal life. Mandatory elements are also necessary for successful e-business.

Infrastructure is the basis necessary for the implementation and control of the main processes of electronic business.

The infrastructure includes all the **elements** that ensure the operation of the IT system: servers, applications, middleware, storage devices.

Infrastructure should be **distinguished** from economic activity.

The infrastructure consists of two categories:

• Internet infrastructure (first level): global networks of high-speed personal computers, which is the basis of e-commerce.

• Internet application infrastructures (second level): software products that provide work in the Internet environment, consultations, training and integrated services, network maintenance.

Economic activity is divided into two **components**:

– transactions involving Internet intermediaries (online brokers, Internet portals, advertising agents **(third level)** that help buyers and sellers find each other by providing them with various marketing services;

– direct transactions in real time **(fourth level).** Carried out by retail companies of goods and services (electronic stores) via the Internet.

Requirements for the e-business infrastructure

– **flexibility** – for rapid development of e-business models by adding new functionality to applications and integrating systems and applications of business partners;

– **scalability** – for the ability to adapt to unpredictable fluctuations in customer and user requests;

– **reliability** – to guarantee the safe and continuous operation and availability of e-business applications to end users.

Logical functions, e-business infrastructure:

• **Web Application servers.** They process the logic of e-business applications in the company and manage interaction with users.

• **Directory and Security Services.** Their task: computing operations at the junction of the internal infrastructure of the company's electronic business and the external environment of the Internet.

• **Edge Servers.** The Security Policy Management server provides unified and global registration for multiple systems.

– **data and Transaction Servers.** The formation of a flexible and reliable e-business infrastructure requires integration between web application servers, data servers and transactions. These servers support the processing of complex and important tasks. They provide a high level of application security and can perform complex transactions on large data arrays. (Transaction– operations with funds: transfer, withdrawal or crediting to the account. Any process related to the use of a bank account)

• **Storage Management.** Management allows each application to access reliable information.

The integration of e-business infrastructure elements creates a communication platform or communication networks.

Network models:

• **Local Area Network (LAN).** Computer network, a physical and logical association of computers for the purpose of sharing all the resources of this network. LAN usually covers a small area, a small group of buildings (house, office, firm, institute). A local network is all the user's devices, servers, routers, wires, cables and wireless access, which are located in approximately one place.

• **Virtual local area network VLAN (Virtual LAN).** This is a group of hosts with a common set of requirements that interact as if they were connected to a broadcast domain regardless of their location. A VLAN has

the same properties as a local network, but allows end stations to be grouped together even if they are NOT on the same physical network.

• **Host** – any device that provides services in the "client-server" format.

• **Global network (Wide Area Network).** A computer network covering large territories and a large number of computers. WAN serve to unite disparate networks so that users and computers, regardless of their location, can interact with all other participants in the global network.

• **Automated retail networks (Electronic Communication Network).** An electronic system for the implementation of transactions for the purchase and sale of exchange-traded goods, which eliminates intermediaries. ECN connects brokers and traders to each other so that they can trade directly, without exchange intermediary mechanisms.

The implementation of e-business has several forms, depending on business partners.

E-business models:

– B2B = Business-to-Business (“company – to-company”);
– B2C = Business-to-Consumer (“consumer – company”);
– C2C =Consumer-to-Consumer (“consumer – consumer”);
– C2B = Consumer-to-Business (“Consumer – company”);
– B2G = Business-to-Government (“company – state”);
– E2E = Exchange-to-Exchange (“exchange – exchange”).

Business for business (B2B) is the type of activity when two companies conduct business transactions using the Internet.

For example, a company can place a request for commercial offers, receive current quotes from its suppliers, conclude a contract, receive or pay bills, publish documents.

B2B models provide communication between consumers of products with manufacturers, buyers – with sellers. Buyers and sellers are legal entities.

Types of B2B model:

– aggregation;
– trading hub;
– bulletin board;
– auction;
– fully automatic exchange.

Aggregation model
(electronic trading platform - e-marketplace)

A universal place for purchasing logistics for the company. Catalogs of many suppliers are presented in a single place and in a single format. Information about product groups and categories is displayed in real time.

The model of a trading hub

The site organizes “trade communities” of sellers and buyers. Sellers are allocated special places to advertise their products, and buyers are given the opportunity to interact with them in order to receive news, specifications and descriptions of goods.

In the model of a trading hub, auctions for the sale of large batches of rare goods and auctions for complex supply of small companies can be held.

Bulletin Board model

The model is a complex bulletin board where sellers and buyers post special information that may arouse the interest of sellers or buyers.

The model is applicable for markets where non-standard products are presented.

Auction Model

This model allows you to form the price of goods for many markets. In the markets, sellers and buyers put up competing bids for contracts. This is a model for eliminating surplus goods at an optimal price, since potential buyers can put up competitive offers for the purchase of goods at a market price.

A fully automatic exchange model

This model is designed for the market of standard goods (consumer goods). This model assumes the presence of offers for purchase and sale with automatic comparison of requests for goods. This model creates an effective mechanism for online market pricing.

Business for the Consumer (B2C)

The most popular form of e-commerce today. The activity is aimed at direct sales to the consumer. One of the biggest examples of B2C is www.amazon.com, an American website.

B2C is effective for eliminating differences between large cities and remote regions when goods and services are available to the consumer. B2C is a sales technology that facilitates the delivery of goods and services to consumers in any part of the world. B2C is direct sales with a minimum number of intermediaries. The elimination of intermediaries allows you to set competitive prices locally and even increase them (excluding the percentage of intermediaries), which leads to an increase in profits.

Consumer to Consumer (C2C)

C2C is the sale of goods and services between consumers. In the model, the site acts as an intermediary between the buyer and the seller.

C2C is a "virtual trading community of consumers" where everyone can buy and sell things.

Consumer for Business (C2B)

Consumers offer products and services to companies, and companies pay consumers. The C2B model works in blogs, online forums where the author offers a backlink to an online business, and facilitates the purchase of a product for which the author can receive affiliate income. from a successful sale.

For example, Elance was the first e-commerce site of the C2B model.

Business-to-Government ("company – state")

B2G is a business model in which private companies collaborate with government agencies.

Advantages of the B2G model

• **Long-term orders** from the state.

• **A great case for a portfolio**. Experience in the field of B2G will have a positive impact on future, including private orders.

• **The sale of a large volume of goods.** The state is the largest organization, so it may need large orders. For example, printing hundreds of thousands of textbooks for schools, repairing hundreds of kilometers of asphalt roads, ordering furniture sets for kindergartens and hospitals.

Exchange-to-Exchange (E2E)

It appeared after the emergence and widespread use of Internet exchanges.

It is impossible to present all goods and services on one Internet exchange. Therefore, the consumer must participate in the activities of several exchanges, which is inconvenient.

For convenient operation on several exchanges, there is an **E2E** model: a consumer is registered on one exchange and sends an application for a product (service) to "his" exchange. If an application cannot be satis-

fied on this exchange, it is automatically transferred to another exchange. If there is no required product (service) there, it is passed on - until it is satisfied**.**

An **electronic showcase** is a specialized website or interactive terminal with which you can select and order products from the assortment of an online store or hypermarkets. Just choose and order. There are no online payment mechanisms in the electronic showcase.

After selecting the product and placing an order on the electronic showcase, the work with the order goes to the sales manager.

Next, the manager organizes communication with the warehouse, delivery of the goods to the buyer and acceptance of payment for the purchase.

Types of electronic display case:

– online showcase;

– computer terminal;

– electronic queue.

Online showcase

This is the location of information about goods (services) – on its own server, the provider's server, the server that provides free pages.

An **online showcase** is an electronic catalog with product cards. It includes: photos, a brief description of the characteristics, the opportunity to submit a request. The showcase has filtering functions and resembles an online store.

Computer terminal

It is an electronic or electromechanical device used for user interaction with a computer or computer system.

The **computer terminal** system has a user-friendly interface that is understandable to users. It has an integrated system for connecting to the goods database, which contains information about goods and their categories. The data is regularly updated automatically.

In the system, you can set filters by manufacturer, price, type, type of goods, it is possible to compare several products. For each model there is a detailed description, price, specifications, photos and other important information.

The selected products are added to the cart. After placing an order, the buyer receives a receipt for payment at the checkout.

Electronic queue

This is a hardware and software complex that allows you to optimize the management of the flow of visitors. The main goals of the electronic

queue system are to direct visitors within the organization and obtain information about the most popular services and the time of their provision. The electronic queue is used in insurance companies, government agencies, banks, medical centers, pharmacies.

The electronic queue consists of a queue registration point, an operator console, a main scoreboard and an operator scoreboard.

Advantages and disadvantages of electronic storefronts

Advantages:

– user-friendly interface;

– integrated connection system with the goods database;

– regular updating of data in automatic mode;

– the ability to obtain information about products in a minimum time.

Disadvantages:

– the lack of the possibility of automated work from the warehouse;

– high cost of terminals.

Test questions on the topic N 8
Infocommunication infrastructure of electronic business enterprises

1. Which of the above does NOT apply to the elements of the e-business infrastructure?

A) servers;

B) applications;

C) sales manager;

D) storage devices.

2. Which of the above is the category of e-business infrastructure?

A) internet application infrastructures;

B) internet intermediaries;

C) transactions;

D) real-time transactions;

3. Which of the above corresponds to the category "Internet infrastructure"?

A) this is the maintenance of the Internet network;

B) these are global networks of high-speed personal computers, which is the basis of e-commerce;

C) these are software products that provide work in the Internet environment;

D) these are consultations, training and integrated services in the Internet environment.

4. Which of the above corresponds to the category "Internet application infrastructure"?

A) these are transactions involving Internet intermediaries;

B) these are direct transactions in real time;

C) these are global networks of high-speed personal computers, which is the basis of e-commerce;

D) these are software products that provide work in the Internet environment, consultations, training and integrated services, network maintenance.

5. Which of the above is an element of economic activity in the Internet?

A) software products;

B) global networks of personal computers;

C) transactions involving Internet intermediaries;

D) data storage devices.

6. Which of the above is NOT a requirement for an e-business infrastructure?

A) scalability;

B) reliability;

C) flexibility;

D) complexity.

7. Which of the above is NOT a logical function of e-business?

A) data and Transaction Servers;

B) electronic stores;

C) Web Application servers;

D) Directory and Security Services.

8. Which of the above corresponds to the logical function of the e-business infrastructure "web application servers"?

A) provide single and global registration for multiple systems;

B) they process the logic of e-business applications in the company and manage interaction with users;

C) they provide a high level of application security and can perform complex transactions on large data arrays;

D) allow each application to access reliable information.

9. Which of the above corresponds to the logical function of the e-business infrastructure “directory and security services”?

A) perform computing operations at the junction of the internal infrastructure of the company's electronic business and the external environment of the Internet;

B) they provide a high level of application security and can perform complex transactions on large data arrays;

C) they process the logic of e-business applications in the company and manage interaction with users;

D) provide unified and global registration for multiple systems.

10. Which of the above corresponds to the logical function of the e-business infrastructure “edge servers”?

A) perform computing operations at the junction of the internal infrastructure of the company's electronic business and the external environment of the Internet;

B) they provide a high level of application security and can perform complex transactions on large data arrays;

C) they process the logic of e-business applications in the company and manage interaction with users;

D) provide unified and global registration for multiple systems.

11. Which of the above corresponds to the logical function of the e-business infrastructure “data and Transaction Servers”?

A) perform computing operations at the junction of the internal infrastructure of the company's electronic business and the external environment of the Internet;

B) they provide a high level of application security and can perform complex transactions on large data arrays;

C) they process the logic of e-business applications in the company and manage interaction with users;

D) provide unified and global registration for multiple systems.

12. Which of the above corresponds to the logical function of the e-business infrastructure “storage management”?

A) perform computing operations at the junction of the internal infrastructure of the company's electronic business and the external environment of the Internet;

B) they provide a high level of application security and can perform complex transactions on large data arrays;

C) allows each application to access reliable information;

D) provide unified and global registration for multiple systems.

13. Which of the above corresponds to the characteristics of a local computer network?

A) this is a group of hosts with a common set of requirements that interact as if they were connected to a broadcast domain regardless of their location;

B) electronic system for the implementation of transactions for the purchase and sale of exchange-traded goods;

C) this is a computer network, a physical and logical association of computers for the purpose of sharing all the resources of this network;

D) a computer network covering large territories and a large number of computers.

14. Which of the above corresponds to the characteristics of a virtual local area network VLAN?

A) this is a group of hosts with a common set of requirements that interact as if they were connected to a broadcast domain regardless of their location;

B) electronic system for the implementation of transactions for the purchase and sale of exchange-traded goods;

C) this is a computer network, a physical and logical association of computers for the purpose of sharing all the resources of this network;

D) a computer network covering large territories and a large number of computers.

15. Which of the above corresponds to the characteristics of the global network?

A) this is a group of hosts with a common set of requirements that interact as if they were connected to a broadcast domain regardless of their location;

B) electronic system for the implementation of transactions for the purchase and sale of exchange-traded goods;

C) this is a computer network, a physical and logical association of computers for the purpose of sharing all the resources of this network;

D) a computer network covering large territories and a large number of computers.

16. Which of the above corresponds to the characteristics of the automated retail networks?

A) this is a group of hosts with a common set of requirements that interact as if they were connected to a broadcast domain regardless of their location;

B) an electronic system for the implementation of transactions for the purchase and sale of exchange-traded goods, which eliminates intermediaries;

C) this is a computer network, a physical and logical association of computers for the purpose of sharing all the resources of this network;

D) a computer network covering large territories and a large number of computers.

17. Which of the above corresponds to the B2B model?

A) the activity is aimed at direct sales to the consumer;

B) is the type of activity when two companies conduct business transactions using the Internet;

C) is a business model in which private companies collaborate with government agencies;

D) is the sale of goods and services between consumers.

18. Which of the above does NOT apply to B2B model types?

A) bulletin board;

B) aggregation;

C) auction;

D) electronic queue.

19. Which of the above corresponds to the "aggregation" model?

A) the model is a complex bulletin board where sellers and buyers post special information that may arouse the interest of sellers or buyers;

B) a universal place for purchasing logistics for the company;

C) this model assumes the presence of offers for purchase and sale with automatic comparison of requests for goods;

D) the model holds auctions for the sale of large batches of rare goods and auctions for the complex supply of small companies.

20. Which of the above corresponds to the "trading hub" model?

A) this model assumes the presence of offers for purchase and sale with automatic comparison of requests for goods;

B) the model is a complex bulletin board where sellers and buyers post special information that may arouse the interest of sellers or buyers;

C) a universal place for purchasing logistics for the company;

D) the model holds auctions for the sale of large batches of rare goods and auctions for the complex supply of small companies.

21. Which of the above corresponds to the "bulletin board" model?

A) the model holds auctions for the sale of large batches of rare goods and auctions for the complex supply of small companies;

B) applicable for markets where non-standard products are presented;

C) this model assumes the presence of offers for purchase and sale with automatic comparison of requests for goods;

D) a universal place for purchasing logistics for the company.

22. Which of the above corresponds to the "auction" model?

A) sellers and buyers put up competing bids for contracts;

B) this model assumes the presence of offers for purchase and sale with automatic comparison of requests for goods;

C) a universal place for purchasing logistics for the company;

D) applicable for markets where non-standard products are presented.

23. Which of the above corresponds to the "fully automatic exchange" model?

A) applicable for markets where non-standard products are presented;

B) this model assumes the presence of offers for purchase and sale with automatic comparison of requests for goods;

C) a universal place for purchasing logistics for the company;

D) sellers and buyers put up competing bids for contracts.

24. Which of the above corresponds to the B2C model?

A) the activity is aimed at direct sales to the consumer;

B) is the type of activity when two companies conduct business transactions using the Internet;

C) is a business model in which private companies collaborate with government agencies;

D) is the sale of goods and services between consumers.

25. Which of the above corresponds to the C2C model?

A) the activity is aimed at direct sales to the consumer;

B) is the type of activity when two companies conduct business transactions using the Internet;

C) is a business model in which private companies collaborate with government agencies;

D) is the sale of goods and services between consumers.

26. Which of the above corresponds to the C2B model?

A) consumers offer products and services to companies, and companies pay consumers;

B) is the type of activity when two companies conduct business transactions using the Internet;

C) is a business model in which private companies collaborate with government agencies;

D) is the sale of goods and services between consumers.

27. Which of the above corresponds to the *B2G* model?

A) consumers offer products and services to companies, and companies pay consumers;

B) is the type of activity when two companies conduct business transactions using the Internet;

C) is a business model in which private companies collaborate with government agencies;

D) is the sale of goods and services between consumers.

28. Which of the above corresponds to the *E2E* model?

A) consumers offer products and services to companies, and companies pay consumers;

B) is the sale of goods and services between consumers;

C) is a business model in which private companies collaborate with government agencies;

D) the consumer participates in the activities of several exchanges.

29. Which of the above corresponds to the definition of the "electronic showcase" infrastructure element?

A) is the type of activity when two companies conduct business transactions using the Internet;

B) sale of goods and services between consumers;

C) is a specialized website or interactive terminal with which you can select and order products from the assortment of an online store or hypermarkets. Just choose and order;

D) is a business model in which private companies collaborate with government agencies.

30. Which of the above does NOT apply to the types of "electronic showcase"?

A) online showcase;

B) electronic queue;

C) computer network;

D) computer terminal.

31. Which of the above corresponds to the characteristics of an online showcase?

A) is an electronic catalog with product cards;

B) electronic system for the implementation of transactions for the purchase and sale of exchange-traded goods;

C) it is an electronic or electromechanical device used for user interaction with a computer or computer system;

D) A computer network covering large territories and a large number of computers.

32. Which of the above corresponds to the characteristics of a computer terminal?

A) this is a hardware and software complex that allows you to optimize the management of the flow of visitors;

B) it is an electronic or electromechanical device used for user interaction with a computer or computer system;

C) this is a computer network;

D) is an electronic catalog with product cards.

Topic 9
Electronic payment systems

A **payment system** is an Internet system for making settlements between financial organizations, business organizations and Internet users when buying/selling goods and services over the Internet.

Conditions for electronic payments:

– **confidentiality**. The buyer's data (for example, credit card number) should be known only to organizations that have a legal right to do so.;

– **preservation of the integrity of information**. The purchase information cannot be changed by anyone;

– **authentication**. Buyers and sellers must be sure that the parties involved in the transaction are who they say they are;

– **the possibility of payment by any means available to the buyer**;

– **authorization.** This is the process of approval or rejection by the payment system of a payment request. This procedure allows you to determine the availability of funds from the buyer;

– **guarantees of the seller's risks.** The magnitude of the risks must be agreed with the payment system provider and other organizations included in the trade chains through special agreements;

Types of payment systems:

– debit cards (working with electronic checks and electronic money);

– credit (working with credit cards).

Electronic checks

Electronic checks are instructions from the payer to his bank to transfer money from his account to the account of the payee.

The operation takes place when the recipient presents the check to the bank.

Differences between a paper receipt and an electronic one:

• Checks are issued by the Bank in electronic form.

• The payer signs the receipt with an electronic signature.

Stages of payment by electronic check:

– the payer writes out an electronic check, signs it with an electronic signature and sends it to the recipient of the payment;

– the receipt is presented for payment to the payment system;

– the bank serving the recipient checks the electronic signature;

– after confirming the authenticity of the signature from the payer's account, the money is transferred to the recipient's account;

-the goods are delivered, the service is rendered.

Electronic money

Electronic money is virtual monetary units that are used to make payments on the Internet. The turnover of electronic money occurs only on the Internet.

Electronic money can be in different currencies, they can be exchanged for real money and vice versa.

The main elements of electronic money:

– electronic money is a monetary value;

– stored on an electronic device;

– the issue of electronic money is made after the preliminary deposit of funds;

– reception is carried out by third parties.

Stages of electronic money payment:

1. The buyer, upon prior request to the bank, exchanges real money for electronic money. Electronic money is stored:

– on the computer's hard drive;

– on smart cards.

2. The buyer transfers electronic money for the purchase to the seller's server.

3. The money is presented to the issuer (the bank that issued the electronic money) to verify their authenticity.

4. After confirming the authenticity of electronic money, the seller's account increases by the purchase amount, and the goods are shipped to the buyer, the service is provided.

Stages of credit card payment:

1. The buyer in the electronic store forms a basket of goods and chooses the payment method "credit card".

2. The credit card parameters (number, name of the owner, expiration date) are transmitted to the Internet payment system for further authorization. This can be done in two ways:

– through the store (card parameters are entered on the store's website and then transmitted to the Internet payment system);

– on the server of the payment system (a more secure method).

3. The Internet payment system transmits the authorization request to the bank payment system.

4. The authorization result is transmitted to the Internet payment system.

5. The store receives the authorization result.

6. The buyer receives the authorization result through the store or from the Internet payment system.

7. If the authorization result is positive:

– the bank payment system transmits information about the completed transaction to the settlement bank. Money from the buyer's account in the issuing bank (which issued the card) is transferred to the store's account in the bank;

– the store provides a service or ships the goods.

A **payment aggregator** is a company that provides services for accepting electronic payments (it is a platform for accepting money on the website).

Online stores use the services of payment aggregators. After signing an agreement with the aggregator, the aggregator's client receives a system for working with electronic payments on his website.

The payment aggregator is responsible for transferring funds from the buyer's account to the seller's account. Good aggregators are able to accept funds from bank cards, electronic payment systems, mobile phone balance, cash and other methods.

A large number of aggregators exist and work. Therefore, a competent approach to choosing a payment aggregator is important.

Criteria for choosing a payment aggregator:

– the number of payment means used;

– the cost of maintenance. Aggregators charge a certain percentage of commission from each transaction. Usually it is 2–5 percent;

– the time of crediting money to the account of the online store. The faster the enrollment, the better;

– ease of integration with the online store's website.

– the quality of the technical support service. If the payment system is broken, the problem must be solved at any time of the day or night, including weekends and holidays;

– availability of additional features: mass payments, cash register service, reservation and so on;

– organizational and legal forms with which the aggregator cooperates. Some aggregators do not work with legal entities and do not work with individuals and the self-employed.

Types of popular payment aggregators

1) **EKAM.Online** – online cash register for an online store with the function of accepting payments on the site. Accepts money, transfers it to the seller's account, issues checks. The service of the cash register is paid according to the selected tariff;

2) **Robokassa** combines the functions of payment acceptance and cash register service. A certain percentage of the commission is taken from each transaction;

3) **Yandex.Cash** it provides assistance in cash register services, purchase of goods on credit, B2B payments for corporate customers, as well as discounts on the use of other Yandex services;

4) Qiwi for the client is a wide network of payment terminals, the ability to pay for a purchase through cellular communication salons or branches of well-known banks;

5) Fondy is an international company with offices in Europe. Fondy is a service with which a business can connect the acceptance of online payments on its website, online store, mobile application, social networks from around the world.

Types of popular payment systems

1) PayPal is the most popular payment service in the world. It was founded in 1998 (one thousand nine hundred ninety-eight) in the USA. Typical: ease of use, buyer protection program, free return of unsuitable goods, PayPal account replenishment in cash, linking PayPal account to a bank card, accepting payments from bank cards directly.

The payment system supports 25 (twenty five) currencies of the countries of the world;

2) **Perfect Money** was founded in 2007 (two thousand seven). Perfect Money users can store their savings in four currencies: US dollars, Euros, gold, Bitcoin.

System features:

• Transfer of funds from account to account.
• Making and accepting online payments.
• Payment of the cost of services.
• Making purchases in online stores and auctions.
• Depositing of funds.
• Storage of funds in cryptocurrency.

3) **Payeer** is an international payment system founded in 2012 (two thousand twelve). It provides for three accounts – in rubles, US dollars and euros. You can register in this payment system on the official website. To do this, you need to create an electronic wallet, specify your email address and password. Account management is carried out through your personal account.

Test questions on the topic N 9
Electronic payment systems

1. Which of the above corresponds to the definition of a payment system?

A) this is an online system for making payments only between financial organizations, when buying / selling services via the Internet,

B) this is an online system for making payments between business organizations when buying/ selling goods and services over the Internet.

C) this is an Internet system for making payments between Internet users when buying/ selling goods and services over the Internet;

D) is an Internet system for making settlements between financial organizations, business organizations and Internet users when buying/selling goods and services over the Internet.

2. Which of the above does NOT apply to the conditions for electronic payments?

A) flexibility;
B) confidentiality;
C) authentication;
D) authorization.

3. Which of the above corresponds to the condition for electronic payments “authorization”?

A) this is the maintenance of the Internet network;

B) the purchase information cannot be changed by anyone;

C) this procedure allows you to determine the availability of funds from the buyer;

D) these are consultations, training and integrated services in the Internet environment.

4. Which of the above corresponds to the condition for making electronic payments “guarantees of the seller's risks”?

A) these are transactions involving Internet intermediaries;

B) this is the process of approval or rejection by the payment system of a payment request;

C) the buyer's data (credit card number) should be known only to organizations that have a legal right to do so.;

D) the magnitude of the risks must be agreed with the payment system provider and other organizations included in the trade chains through special agreements.

5. Which of the above corresponds to the condition for conducting electronic payments “confidentiality”?

A) these are transactions involving Internet intermediaries;

B) this is the process of approval or rejection by the payment system of a payment request;

C) the buyer's data (credit card number) should be known only to organizations that have a legal right to do so.;

D) the magnitude of the risks must be agreed with the payment system provider and other organizations included in the trade chains through special agreements.

6. Which of the above corresponds to the condition for conducting electronic payments “authentication”?

A) the magnitude of the risks must be agreed with the payment system provider and other organizations included in the trade chains through special agreements;

B) allow each application to access reliable information;

C) this procedure allows you to determine the availability of funds from the buyer;

D) buyers and sellers must be sure that the parties involved in the transaction are who they say they are.

7. Which of the above corresponds to the condition for conducting electronic payments "preserving the integrity of information"?

A) the purchase information cannot be changed by anyone;

B) allow each application to access reliable information;

C) this procedure allows you to determine the availability of funds from the buyer;

D) buyers and sellers must be sure that the parties involved in the transaction are who they say they are.

8. Which of the above does NOT correspond to the types of electronic payment systems?

A) debit systems that work with electronic money;

B) credit systems that work with cash;

C) debit systems that work with electronic checks;

D) credit systems that work with credit cards.

9. Which of the above corresponds to the definition of "electronic check"?

A) these are virtual monetary units that are used to make payments on the Internet. The turnover of electronic money occurs only on the Internet;

B) it is a platform for accepting money on the website;

C) these are the instructions of the payer to his bank to transfer money from his account to the account of the payee;

D) this is an online payment system.

10. Which of the above does NOT correspond to the work of the "electronic check"?

A) an electronic check is stored on the computer's hard disk;

B) the payer signs the receipt with an electronic signature;

C) check are issued by the bank in electronic form;

D) the operation takes place when the recipient presents the check to the bank.

11. Mark the correct sequence of stages of payment by electronic check

A) 1) the receipt is presented for payment to the payment system – 2) the payer writes out an electronic check, signs it with an electronic signature and sends it to the recipient of the payment – 3) the bank serving the recipient checks the electronic signature – 4) after confirming the authenticity of the signature from the payer's account, the money is transferred to the recipient's account – 5) the goods are delivered, the service is rendered.

B) 1) the payer writes out an electronic check, signs it with an electronic signature and sends it to the recipient of the payment – 2) the goods are delivered, the service is rendered – 3) the bank serving the recipient checks the electronic signature – 4) after confirming the authenticity of the signature from the payer's account, the money is transferred to the recipient's account – 5) the receipt is presented for payment to the payment system;

C) 1) the payer writes out an electronic check, signs it with an electronic signature and sends it to the recipient of the payment – 2) the receipt is presented for payment to the payment system – 3) the bank serving the recipient checks the electronic signature – 4) after confirming the authenticity of the signature from the payer's account, the money is transferred to the recipient's account – 5) the goods are delivered, the service is rendered.

D) 1) the payer writes out an electronic check, signs it with an electronic signature and sends it to the recipient of the payment – 2) the bank serving the recipient checks the electronic signature – 3) the receipt is presented for payment to the payment system – 4) after confirming the authenticity of the signature from the payer's account, the money is transferred to the recipient's account – 5) the goods are delivered, the service is rendered.

12. Which of the above corresponds to the definition of "electronic money"?

A) this is virtual monetary units that are used to make payments on the Internet;

B) this is an Internet system for making settlements between financial organizations;

C) this are instructions from the payer to his bank to transfer money from his account to the account of the payee;

D) this is a company that provides services for accepting electronic payments.

13. Which of the above does NOT apply to the elements of electronic money?

A) electronic money is stored on an electronic device;

B) electronic money is not a legal tender;

C) the issue of electronic money is made after the preliminary deposit of funds;

D) acceptance of electronic money is carried out by third parties.

14. Mark the correct sequence of stages of electronic money payment:

A) 1. The buyer transfers electronic money for the purchase to the seller's server – 2. The buyer, upon prior request to the bank, exchanges real money for electronic money – 3. The money is presented to the issuer (the bank that issued the electronic money) to verify their authenticity – 4. After confirming the authenticity of electronic money, the seller's account increases by the purchase amount, and the goods are shipped to the buyer, the service is provided;

B) 1. The buyer, upon prior request to the bank, exchanges real money for electronic money – 2. The money is presented to the issuer (the bank that issued the electronic money) to verify their authenticity – 3. The buyer transfers electronic money for the purchase to the seller's server – 4. After confirming the authenticity of electronic money, the seller's account increases by the purchase amount, and the goods are shipped to the buyer, the service is provided;

C) 1. The buyer, upon prior request to the bank, exchanges real money for electronic money – 2. The buyer transfers electronic money for the purchase to the seller's server – 3. After confirming the authenticity of electronic money, the seller's account increases by the purchase amount, and the goods are shipped to the buyer, the service is provided – 4. The money is presented to the issuer (the bank that issued the electronic money) to verify their authenticity;

D) 1. The buyer, upon prior request to the bank, exchanges real money for electronic money – 2. The buyer transfers electronic money for the purchase to the seller's server – 3. The money is presented to the issuer (the bank that issued the electronic money) to verify their authenticity – 4. After confirming the authenticity of electronic money, the seller's account increases by the purchase amount, and the goods are shipped to the buyer, the service is provided.

15. Mark the correct sequence of credit card payment steps

A) 1. The Internet payment system transmits the authorization request to the bank payment system. – 2. The credit card parameters (number, name of the owner, expiration date) are transmitted to the Internet payment system for further authorization. – 3. The buyer in the electronic store forms a basket of goods and chooses the payment method “credit card” – 4. The authorization result is transmitted to the Internet payment system. – 5. The store receives the authorization result. – 6. The buyer receives the authorization result through the store or from the Internet pay-

ment system. – 7. If the authorization result is positive the bank payment system transmits information about the completed transaction to the settlement bank;

B) 1 The credit card parameters (number, name of the owner, expiration date) are transmitted to the Internet payment system for further authorization..– 2. The buyer in the electronic store forms a basket of goods and chooses the payment method “credit card” – 3. The Internet payment system transmits the authorization request to the bank payment system. – 4. The authorization result is transmitted to the Internet payment system. – 5. The store receives the authorization result. – 6. The buyer receives the authorization result through the store or from the Internet payment system. – 7. If the authorization result is positive the bank payment system transmits information about the completed transaction to the settlement bank;

C) 1. The buyer in the electronic store forms a basket of goods and chooses the payment method “credit card” – 2. The credit card parameters (number, name of the owner, expiration date) are transmitted to the Internet payment system for further authorization. – 3. The Internet payment system transmits the authorization request to the bank payment system. – 4. The authorization result is transmitted to the Internet payment system. – 5. The store receives the authorization result. – 6. The buyer receives the authorization result through the store or from the Internet payment system. – 7. If the authorization result is positive the bank payment system transmits information about the completed transaction to the settlement bank;

D) 1. The buyer in the electronic store forms a basket of goods and chooses the payment method “credit card” – 2. The credit card parameters (number, name of the owner, expiration date) are transmitted to the Internet payment system for further authorization. – 3. The Internet payment system transmits the authorization request to the bank payment system. – 4. The authorization result is transmitted to the Internet payment system. – 5. The buyer receives the authorization result through the store or from the Internet payment system. – 6. The store receives the authorization result – 7. If the authorization result is positive the bank payment system transmits information about the completed transaction to the settlement bank.

16. Which of the above corresponds to the definition of “payment aggregator”?

A) this is virtual monetary units that are used to make payments on the Internet;

B) this is an Internet system for making settlements between financial organizations;

C) this are instructions from the payer to his bank to transfer money from his account to the account of the payee;

D) this is a company that provides services for accepting electronic payments.

17. Which of the above does NOT relate to the characteristic features of payment aggregators?

A) the payment aggregator is responsible for transferring funds from the buyer's account to the seller's account;

B) payment aggregators do not accept funds from bank cards;

C) after signing an agreement with the aggregator, the aggregator's client receives a system for working with electronic payments on his website;

D) online stores use the services of payment aggregators.

18. Which of the above does NOT apply to the criteria for choosing a payment aggregator?

A) the time of crediting money to the account of the online store;

B) the quality of the technical support service;

C) the ability to determine the availability of funds from the buyer;

D) organizational and legal forms with which the aggregator cooperates.

Topic 10
E-business efficiency

The **effectiveness of e-commerce** is a measure of compliance of the results achieved with the help of technologies, techniques and rules of e-commerce, commercial transactions performed with the goals set, taking into account the resources spent.

An **efficiency indicator** is a certain quantity that quantitatively characterizes the process and can be measured.

Each commercial operation, e-commerce, refers to a specific form of commerce – trade, leasing, advertising, insurance, and more.

Therefore, the effectiveness of e-commerce is evaluated in relation to a **specific form** of commercial operation.

High efficiency of e-commerce is achieved by **reducing** the costs of circulation.

The effectiveness of Internet projects is more often based on the performance of the site.

Site performance indicators:

– number of site visits;
– frequency of site visits;
– the time spent by the visitor on the site;
– the number of ad impressions on the site;
– the number of clicks on the ad;
– the frequency of clicks on the site;
– the number of new users;
– the number of site page views;
– the depth of the site page view;
– the number of orders through the site;
– the volume of sales through the site;
– the frequency of orders through the site;
– and others.

E-business performance assessments are **classified** to the following **areas**:

– economic;
– organizational;
– marketing.

Economic indicators are used to assess the economic efficiency of building an e-commerce system.

Organizational orientation indicators determine the degree of integration of the new e-commerce system with the traditional business processes of the enterprise.

Marketing indicators are understood as indicators that characterize the effectiveness of a marketing program for promoting a server on the Internet and the effectiveness of using Web marketing tools.

Economic efficiency of an enterprise's e-business system based on a Web server in an Internet environment:

$$E = Cn/Cc,$$

E – economic efficiency; Сп– the result is due to the functioning of the system; *Cc* – total costs for the development and operation of the system.

Full costs:

$$Cc = Ci + Co,$$

Ci

– total capital investments in system design, acquisition of necessary components and its implementation; Co – operating costs.

The **assessment of organizational aspects** characterizes the degree of combining the performance of various functions of e-commerce and traditional:

$$\Pi = P / Pt,$$

P – the number of functions performed jointly by an existing and a new Pt

form of business; – total number of functions that are compatible;

Marketing indicators

1. The **effectiveness of various inputs to the server** - characterizes the effectiveness of using various sources of attracting visitors to the server:

$$\Pi sav = Ssav/St ,$$

Ssav Ssav – the number of visitors who have used a specific source of login to the server; St – the total number of server visits.

2. Server web page traffic – reflects the popularity of the server pages.

$$\Pi p = Sp/St ,$$

Sp – the number of page visits; St – the total number of server visits.

3. The **effectiveness of banner ads.** Determines the effectiveness of each advertising banner and allows you to compare between them and improve them. It is based on the analysis of the contingent of visitors who, under the influence of advertising, used a banner link and used it to go to the company's web server:

$$Kba = Sb/St ,$$

Sb – the number of visitors who “clicked” the advertising banner; St – the total number of visitors to the advertising banner.

4. The efficiency of converting server visitors into buyers is determined for the implementation option on the virtual store's web-server:

$$\Pi v = (Sv/Su)100\ \%,$$

St v – the number of visitors who switched to the purchase of goods; Su – the number of unique server visitors.

5. **The number of repeated visits.** This is an indicator of the maximum number of repeated visits to the server:

$$Krv = St / Su,$$

St – total number of server visits; Su – the number of unique server visitors.

Test questions on the topic N 10
E-business efficiency

1. Which of the above does NOT correspond to the effectiveness of e-commerce?

A) the effectiveness of e-commerce is evaluated in relation to a specific form of commercial transaction;

B) high efficiency of e-commerce is achieved by increasing the cost of circulation;

C) this is a measure of compliance of the results achieved with the help of technologies, techniques and rules of e-commerce, with the goals set, taking into account the resources spent;

D) high efficiency of e-commerce is achieved by reducing the costs of circulation.

2. Which of the above does NOT apply to the performance indicators of the company's website?

A) frequency of site visits;

B) the time spent by the visitor on the site;

C) the frequency of site hacks by hackers;

D) the volume of sales through the site.

3. Which of the above does NOT correspond to the areas of e-business efficiency assessment?

A) economic;

B) organizational;

C) technical;

D) marketing.

4. Which of the above corresponds to the economic performance indicators of e-business?

A) these are used to assess the economic efficiency of building an e-commerce system;

B) indicators characterizing the effectiveness of the marketing program of server promotion on the Internet and the effectiveness of using Web marketing tools;

C) ensure the operation of the IT system;

D) determine the degree of integration of the new e-commerce system with the traditional business processes of the enterprise.

5. Which of the above corresponds to the organizational performance indicators of e-business?

A) these are used to assess the economic efficiency of building an e-commerce system;

B) indicators characterizing the effectiveness of the marketing program of server promotion on the Internet and the effectiveness of using Web marketing tools;

C) they provide consultations, training and integrated services in the Internet environment, network maintenance;

D) determine the degree of integration of the new e-commerce system with the traditional business processes of the enterprise.

6. Which of the above corresponds to the marketing performance indicators of e-business?

A) these are used to assess the economic efficiency of building an e-commerce system;

B) indicators characterizing the effectiveness of the marketing program of server promotion on the Internet and the effectiveness of using Web marketing tools;

C) they provide consultations, training and integrated services in the Internet environment, network maintenance;

D) determine the degree of integration of the new e-commerce system with the traditional business processes of the enterprise.

7. Note the formula for calculating the economic efficiency of an enterprise's e-business system based on a Web server (*С*п – the result is due to the functioning of the system; *Сс* – total costs for the development and operation of the system):

A) $E = Сп / Сс$;

B) $E = Сп – Сс$;

C) $E = Сп \cdot Сс$;

D) $E = Сп + Сс$.

8. Note the formula for calculating the degree of combining the performance of e-commerce and traditional functions (– the number of functions performed jointly by an existing and a new form of business; – total number of functions that are compatible):

A) $\Pi = P +$ Pt;

B) $\Pi = P /$ Pt $\Pi = \frac{P}{Pt}$;

C) $\Pi = P -$ Pt; $\Pi = P - Pt$;

D) $\Pi = P \cdot$ Pt $\Pi = P * Pt$.

9. Mark the formula for calculating the efficiency of using various sources of attracting visitors to the server (*Ssav* $Ssav$ – the number of visitors who have used a specific source of login to the server; *St* –

the total number of server visits)?

Πsav $Ssav$ St

A) $\Pi sav = Ssav \cdot St$;

$\Pi sav = Ssav - St$

B) $\Pi sav = Ssav – St$;

C) $\Pi sav = Ssav / St$;

$$\text{Пsav} = \text{Ssav} + \text{St}$$

D) Π*sav* = *Ssav* + *St*.

10. Mark the formula for calculating the popularity of the server pages (*Sp* – the number of page visits; *St* – the total number of server visits):

A) Пр = *Sp* + *St*;
B) Пр = *Sp* · *St*;
C) Пр = *Sp* – *St*;
D) Пр = *Sp* / *St*.

11. Mark the formula for calculating the effectiveness of banner advertising (*Sb*- the number of visitors who "clicked" the advertising banner, *St* – the total number of visitors to the advertising banner):

$$\text{Кba} = \text{Sb} * \text{St}$$

A) *Kba* = *Sb* · *St*;

$$\text{Кba} = \frac{\text{Sb}}{\text{St}}$$

B) *Kba* = *Sb* – *St*;
C) *Kba* = *Sb* / *St*;

$$\text{Кba} = \text{Sb} + \text{St}$$

D) *Kba* = *Sb* + *St*.

12. Mark the formula for calculating the efficiency of converting server visitors into buyers (*Sv* – the number of visitors who switched to the purchase of goods, *Su* – the number of unique server visitors)

A) Π*v* = (*Sv* – *Su*) · 100 %;
B) Π*v* = (*Sv* + *Su*) · 100 %;
C) Π*v* = (*Sv* · *Su*) · 100 %;
D) Π*v* = (*Sv* / *Su*) · 100 %.

Topic 11
E-business security

Today there is a high level of fraud on the Internet.

Classification of possible types of fraud in e-commerce:

– transactions (non-cash transactions) performed by fraudsters using the correct card details;

– obtaining personal data about the client through hacking the databases of trading enterprises or by intercepting customer messages;

– butterfly shops that appear, for a short time, to receive funds from buyers for non-existent services or goods;

– repeated debiting of funds from the client's account;

– creation of stores and sales agents to collect information about the personal data of the buyer.

Principles of creation and functioning of the security system:

– general principles of security;

– organizational principles;

– principles of implementation of the security system.

General principles of security:

– the **uncertainty principle**: when ensuring the protection of electronic business, it is unknown who, when, where and how will try to violate the security of the business;

– the **principle of the impossibility of creating an ideal business protection system**: when creating a protection system, the exact working conditions of the business are unknown;

– the **principle of minimal risk**: when creating a protection system, it is necessary to choose the minimum degree of risk based on the characteristics of security threats and available resources at any time;

– the **principle of protecting everyone from everyone**: the need to protect all business entities against all types of threats.

Organizational principles

– the **principle of legality**: the security system must comply with the law;

– the **principle of personal responsibility**: the responsibility of each employee of the company for ensuring the security regime within their authority. Responsibility for the violation of the security regime must be specified in advance;

– the **principle of separation of powers**: every employee in the company must have information within the framework of their job responsibilities;

– the **principle of interaction and cooperation**: the presence of trusting relationships between employees at the enterprise, everyone's understanding of the importance of measures to ensure the security of company information.

Principles of implementation of the protection system:

– the **principle of complexity and individuality**: ensuring security by complex, interrelated and overlapping activities;

– the **principle of the sequence of boundaries**: the organization of consistent counteraction to the threat in accordance with the degree of danger;

– the **principle of protection of protective equipment**: any protection event itself must be properly protected**.**

An Information security management System (ISMS) is a part of a general management system based on a business risk approach, with the aim of creating, implementing, operating, constantly monitoring, analyzing, maintaining and improving information security.

Elements of the information security system:

– protection against unauthorized access to systems;

– internal protection against unauthorized access by employees of the organization;

– protection of data transmission channels;

– ensuring the relevance of data when exchanging information with customers;

– electronic document management;

– information security incident management;

– business continuity management;

– internal and external audit of the information security system.

The requirements of the ISO 27001 standard can be applied by any organization, regardless of their industry and field of activity, the technologies used.

The information security management system, according to the requirements of the standard, ensures the relationship between business solutions and the level of information security, which makes the e-business protection system effective and adequate to threats.

Purpose of the standard

Selection of appropriate security management measures designed to protect information assets and guarantee the trust of stakeholders.

Tasks of the ISO 27001 standard:

– establishment of uniform requirements for ensuring information security of organizations;

– ensuring interaction between management and employees;

– improving the effectiveness of measures to ensure and maintain information security of organizations.

Advantages of creating and implementing a security system in accordance with the requirements of the ISO 27001 standard:

– independent proof of the stability and reliability of the organization's business processes;

– increasing trust in the organization;

– improving the stability of the functioning of the organization as a whole;

– achieving the adequacy of measures to protect against real threats to information security;

– prevention, reduction of damage from information security incidents.

Test questions on the topic N 11
E-business security

1. Which of the following is NOT a type of e-commerce scam?

A) obtaining personal data about the client through hacking the databases of trading enterprises;

B) one-time debiting of funds from the client's account;

C) butterfly shops that appear, for a short time;

D) creation of sales agents to collect information about the personal data of the buyer.

2. Which of the following is NOT related to the principles of creating and operating an e-commerce security system?

A) maximum risk principle;

B) separation of powers;

C) organizational principles;

D) principles of implementation of the security system.

3. Which of the above corresponds to the principle of ensuring the security of electronic business "uncertainty"?

A) the need to protect all business entities against all types of threats;

B) when ensuring the protection of electronic business, it is unknown who, when, where and how will try to violate the security of the business;

C) when creating a protection system, it is necessary to choose the minimum degree of risk based on the characteristics of security threats and available resources at any time;

D) when creating a protection system, the exact working conditions of the business are unknown.

4. Which of the above corresponds to the principle of ensuring the security of electronic business "the impossibility of creating an ideal protection system"?

A) the need to protect all business entities against all types of threats;

B) when ensuring the protection of electronic business, it is unknown who, when, where and how will try to violate the security of the business;

C) when creating a protection system, it is necessary to choose the minimum degree of risk based on the characteristics of security threats and available resources at any time;

D) when creating a protection system, the exact working conditions of the business are unknown.

5. Which of the above corresponds to the principle of ensuring the security of electronic business "minimal risk"?

A) the need to protect all business entities against all types of threats;

B) when ensuring the protection of electronic business, it is unknown who, when, where and how will try to violate the security of the business;

C) when creating a protection system, it is necessary to choose the minimum degree of risk based on the characteristics of security threats and available resources at any time;

D) when creating a protection system, the exact working conditions of the business are unknown.

6. Which of the above corresponds to the principle of ensuring the security of electronic business "protecting everyone from everyone"?

A) the need to protect all business entities against all types of threats;

B) when ensuring the protection of electronic business, it is unknown who, when, where and how will try to violate the security of the business;

C) when creating a protection system, it is necessary to choose the minimum degree of risk based on the characteristics of security threats and available resources at any time;

D) when creating a protection system, the exact working conditions of the business are unknown.

7. Which of the above corresponds to the principle of ensuring the security of electronic business "separation of powers"?

A) ensuring security by complex, interrelated and overlapping activities;

B) when ensuring the protection of electronic business, it is unknown who, when, where and how will try to violate the security of the business;

C) every employee in the company must have information within the framework of their job responsibilities;

D) when creating a protection system, the exact working conditions of the business are unknown.

8. Which of the above corresponds to the principle of ensuring the security of electronic business “interaction and cooperation”?

A) ensuring security by complex, interrelated and overlapping activities;

B) when ensuring the protection of electronic business, it is unknown who, when, where and how will try to violate the security of the business;

C) every employee in the company must have information within the framework of their job responsibilities;

D) the presence of trusting relationships between employees at the enterprise, everyone's understanding of the importance of measures to ensure the security of company information.

9. Which of the above corresponds to the principle of ensuring the security of electronic business “complexity and individuality”?

A) ensuring security by complex, interrelated and overlapping activities;

B) when ensuring the protection of electronic business, it is unknown who, when, where and how will try to violate the security of the business;

C) every employee in the company must have information within the framework of their job responsibilities;

D) the presence of trusting relationships between employees at the enterprise, everyone's understanding of the importance of measures to ensure the security of company information.

10. Which of the above corresponds to the principle of ensuring the security of electronic business “sequence of boundaries”?

A) ensuring security by complex, interrelated and overlapping activities;

B) the organization of consistent counteraction to the threat in accordance with the degree of danger;

C) every employee in the company must have information within he framework of their job responsibilities;

D) the presence of trusting relationships between employees at the enterprise, everyone’s understanding of the importance of measures to ensure the security of company information.

11. Which of the above corresponds to the principle of ensuring the security of electronic business «protection of protective equipment»?

A) ensuring security by complex, interrelated and overlapping activities;

B) the organization of consistent counteraction to the threat in accordance with the degree of danger;

C) any protection event itself must be properly protected;

D) the presence of trusting relationships between employees at the enterprise, everyone's understanding of the importance of measures to ensure the security of company information.

12. Which of the above corresponds to the full definition of an information security management system?

A) this is a part of a general management system based on a business risk approach, with the aim of creating, implementing, operating, constantly monitoring, analyzing, maintaining and improving information security;

B) this is a part of a general management system based on a business risk approach, with the aim of creating, implementing, operating, maintaining and improving information security;

C) this is a part of a general management system based on a business risk approach, with the aim of creating, constantly monitoring, analyzing, maintaining and improving information security;

D) this is a part of a general management system based on a business risk approach, with the aim of creating, implementing, operating, constantly monitoring, analyzing, maintaining.

13. Which of the above does NOT correspond to the elements of the information security system?

A) protection of data transmission channels;

B) violation of authorized access to systems;

C) internal and external audit of the information security system;

D) electronic document management.

14. Which of the above does NOT meet the objectives of the ISO 27001 information security standard?

A) ensuring interaction between management and employees;

B) improving the effectiveness of measures to ensure and maintain information security of organizations;

C) the contradiction between business solutions and the level of information security;

D) establishment of uniform requirements for ensuring information security of organizations.

15. Which of the above does NOT correspond to the advantages of creating and implementing a security system in accordance with the requirements of the ISO 27001 standard?

A) improving the stability of the functioning of the organization as a whole;

B) prevention, reduction of damage from information security incidents;

C) independent proof of the stability and reliability of the organization's business processes;

D) increasing distrust of the organization.

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Treytiakova Elena Vitalievna

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