Methodological recommendations for self-study

on the subject «ELECTRONIC LOGISTICS »

Educational degree: «Bachelor»

Educational Professional Program: "Logistics"

Field of study: 07 "Management and Administration"

Specialty: 073 "Management"

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Discussed and approved by the Logistics Department

Minutes № _____ of ____. ____. 202___

Head of the Department

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TOPIC 1: OPPORTUNITIES OF THE ELECTRONIC ENVIRONMENT FOR LOGISTICS

Questions (tasks) for self-study:
1. Peculiarities of logistic activities in the electronic environment.
2. Development stages of E-logistics.
3. Characteristics and classification of the electronic environment (Internet and Intranet networks).
4. Types of electronic information resources in logistics.
5. Electronic information flows.
6. Scheme of integration of information flows based on Internet-Intranet technologies in logistics, IoT (Internet / Intranet of things).
7. Legal aspects of e-logistics.
8. The applying of "cloud" technologies in logistics.
9. Industrial espionage in the electronic environment and methods of combating it.
10. Authentication and biometric control.

List of references:

1.Yingli Wang, Stephen Pettit. (2021) E-Logistics: Managing Digital Supply Chains for Competitive Advantage. Kogan Page Publishers. 296 p.
2. Ding, Feng (2018) Developing E-commerce logistics in cross-border relation. Universitätsverlag der TU Berlin. 201 p.
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Questions:
1. What is the electronic environment?
2. What are peculiarities of logistics activities in the e- environment?
3. What is the electronic logistics?
4. What are development stages of e-logistics?
5. What types of logistics marketplaces do you know?
6. What characteristics of the electronic environment do you know?
7. What is the difference between Internet and Intranet?
8. What is the electronic information resource?
9. What types of information e-resource do you know?
10. What is the electronic information flow ?
11. What types of electronic information flow do you know?
12. What is Internet of Things?
13. Can you tell about main legal aspects of e-logistics?
14. What is the role of cloud technologies in logistics?
15. What best methods of detect and prevent industrial espionage?

Tests:

What arises in the process of joint interaction of digital devices, the Internet, media, users, etc.?

a) physical environment;

b) electronic environment;

c) marketing;

d) logistics

The advantages of using the electronic environment in logistics activities include...

a) acceleration of material flow movement;

b) automation of data processing during the movement of material flows;

c) reduction of financial costs for cargo transportation;

d) correct answers a) and b).

The advantages of using the electronic environment in logistics activities include...

a) acceleration of execution and optimization of logistic business processes;

b) reduction of financial costs for storage;

c) reduction of financial costs for cargo transportation;

d) correct answers a) and b).

The advantages of using the electronic environment in logistics activities include...

a) development and modeling of supply chains;

b) reduction of financial costs for inventory management;

c) reduction of time spent on information transfer;

d) correct answers a) and c).

Define "e-logistics"

a) includes activities to ensure logistics operations connected by electronic information and financial flows;

b) includes activities to ensure logistics operations related to material and financial flows;

c) includes activities to ensure logistics operations connected by paper information flows;

d) all answers are correct.

The first signs of the use of electronic space since the beginning of the use of data exchange fall on

a) 1960s;

b) the end of the 1990s;

c) 1980s;

d) the 2000s.

The development of the product coding system falls on

a) 1960s;

b) the end of the 1990s;

c) 1980s;

d) the 2000s.

TOPIC 2. BUSINESS MODELS IN E-LOGISTICS

Questions (tasks) for self-study:
1. Different types of business models and their characteristics
2. Principles of construction, implementation and control of logistics processes for the listed business models.

List of references:

    1. Yingli Wang, Stephen Pettit. (2021) E-Logistics: Managing Digital Supply Chains for Competitive Advantage. Kogan Page Publishers. 296 p.
    2. Ding, Feng (2018) Developing E-commerce logistics in cross-border relation. Universitätsverlag der TU Berlin. 201 p.
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Questions:
What particularities of B2B business model and logistics of it?
What particularities of B2C business model and logistics of it?
What particularities of B2G business model and logistics of it?
What particularities of C2B business model and logistics of it?
What particularities of G2B business model and logistics of it?
What can you tell about logistics of traditional store?
What can you tell about logistics of Ukrainian internet-store?
What can you tell about logistics of world internet-store?

Tests:
What business model applies to businesses buying from and selling to each other over the Internet?
a) B2B;
b) B2C;
c) C2B;
d) B2C.

What business model applies to businesses that sells its products or services to consumers over the Internet?
a) B2B;
b) B2C;
c) C2B;
d) B2C.

What business model applies to any consumers that sells a product or service to a business over the Internet?
a) C2B;
b) B2C;

c) C2B;
d) B2C.

What business model applies to sites that primarily offer to assist consumer selecting optimal product or services from business over the Internet?
a) C2B;
b) G2C;
c) C2B;
d) B2C.

What business model applies to sites primarily offering goods and services to assist consumers interacting with each other over the Internet?
a) C2B;
b) G2C;
c) C2B;
d) B2C.

What business model applies to make it easier for citizens and consumers of public services to communicate with the government?
a) C2B;
b) G2C;
c) C2B;
d) B2C.

TOPIC 3. MOBILE INTERNET AND WAP TECHNOLOGIES IN LOGISTICS. E-PROCUREMENT

Questions (tasks) for self-study:
1. Development of WAP technologies / Mobile Internet. WAP resources.
2. Mobile communications and monitoring systems. Software. Mobile business.
3. Mobile solutions for logistics. Mobile warehouse. Booking and control of orders. Reporting. Mobile office.
4. Solutions related to the use of inexpensive sensors for measuring logistics dimensions, additional visual inspection and monitoring the condition of workers for safety purposes.
5. Search for suppliers via the Internet.
6. Electronic catalogs.
7. Electronic procurement. Electronic tenders. Preparation of e-documentation for participation in e-tendering. Procedure for conducting e-tenders. Electronic contracts.
8. Electronic auctions, exchanges and. Electronic logistics tender sites.

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Questions:
1. What stages of mobile communications development can you enumerate?
2. What is WAP and GPRS?
3. What GPRS application can you enumerate?
4. Why is Mobile Internet used in logistics?
5. What of advantages of mobile business can you enumerate?
6. What mobile solution for logistics and what of advantages of this solutions do you know?
7. What of advantages of monitoring system for logistics can you enumerate?
8. What is The Business Line Sensor Logistics?
9. What type of for suppliers via the Internet can you enumerate?
10. What benefits of e-catalog do you know?
11. What is e-procurement and it's advantages?
12. What is e-auction? Classify e-auction.
13. What is e-tender and what is procedure of e-tender?
14. What is e-exchange?
15. What is e-logistics marketplaces and it's benefits?

Tests:
What is the electronic purchase and sale of goods and services, usually through an Internet-based platform?
a) e-procurement;
b) e-supply;
c) e-logistics;
d) e-trade.

Key components of e-procurement are:
a) Supplier Management;
b) Analytics;
c) Purchase to pay;
d) Source-to-contract.

What is sale of various goods in e-business, when there are one seller and many buyers?
a) e-auction;
b) e-exchanges;

c) e-tenders.

What is the purchase and sale of various goods within the e-business, when there are many sellers and many buyers?
a) e-auction;
b) e-exchanges;
c) e-tenders.

What type of e-auction works with descending prices?
a) Dutch e-auction;
b) English e-auction;
c) reverse e-auction;
d) e-auction of similar stores.

What type of e-auction works with increasing prices?
a) Dutch e-auction;
b) English e-auction;
c) reverse e-auction;
d) e-auction of similar stores.

What type of e-auction is used not to sell the object of e-auction, but to buy it?
a) Dutch e-auction;
b) English e-auction;
c) reverse e-auction;
d) e-auction of similar stores.

In what type of ELM is "the leader-one organization is responsible for its operation and the information flows through it in"?
a) Private ELM;
b) Shared ELMs;
c) Collaborative ELMs.

In what type of ELM is " the leader of the ELM is not one organization, but several in a consortium who are aligned through common interests"?
a) Private ELM;
b) Shared ELMs;
c) Collaborative ELMs.

In what type of ELM is " all of the different ELMs are hosted by a single organization and share the same platform"?
a) Private ELM;
b) Shared ELMs;
c) Collaborative ELMs.

TOPIC 4. ELECTRONIC SYSTEMS FOR BOOKING AND SALE TRANSPORTATION

Questions (tasks) for self-study:
1. International and local booking systems (road, rail, air and water transport).
2. Booking systems for air, rail, sea and car passenger transportation.
3. Electronic freight.
4. Electronic transport portals and their use in the organization of transportation: corporate reservation and cargo tracking systems.
5. Electronic calculator of the cost of transportation.

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Questions:
1. What international booking systems do you know?
2. What is difference between booking systems and distribution systems?
3. What is the specifics of e-freight?
4. What is the aim of e-freight?
5. What are the particulars of corporate reservation and cargo tracking systems?
6. What are the particulars of online electronic calculator of the cost of transportation?

TOPIC 5. LOGISTICS OF E-COMMERCE AND SERVICE IN AN ELECTRONIC ENVIRONMENT

Questions (tasks) for self-study:
1. Internet trade. Trends in the development of electronic commerce.
2. Online stores and their classification.
3. The value of logistics for an online store.
4. Designing delivery channels and supply chains in e-commerce.
5. Organization of delivery of goods and their storage.
6. Reverse flow logistics.
7. Interaction of the online store with courier services, delivery services and logistics companies.

8. Electronic services: advertising, interactive consulting service, help system for customers, registration of regular customers and partners, self-order system.

9. Technology of electronic logistics service.

10. Tracking consumer behavior in the electronic environment. CRM system.

List of references.

1.Yingli Wang, Stephen Pettit. (2021) E-Logistics: Managing Digital Supply Chains for Competitive Advantage. Kogan Page Publishers. 296 p.

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Questions:

1. What trends in the development of e-commerce do you know?
2. What is online store?
3. What type of online store do you know?
4. Why is logistics important for online store?
5. What features of steps of delivery chain designing on e-commerce are?
6. What steps of organization of delivery of goods and their storage on e-commerce are?
7. What is reverse logistics?
8. What type of reverse logistics do you know?
9. What features of Interaction of the online store with courier services, delivery services and logistics companies are?
10. What e-services do you know?
11. How does logistics technology allow to provide best services?
12. What type of consumer behavior tracking do you know?
13. What is the aim of CMR-system?

TOPIC 6. ELECTRONIC DOCUMENT MANAGEMENT. ELECTRONIC DATA INTERCHANGE

Questions (tasks) for self-study:

1. Technology of electronic document circulation, legal component.
2. Implementation of electronic document flow and its use in organizing transportation, carrying out customs procedures, and monitoring cargo flows.
3. The role of GS1 in logistics, the applying of GS1 codes.
4. Global Data Synchronization Network.
5. The main advantages of EDI.
6. Implementation of EDI.
7. The applying of EDI standards in the organization of transportation, carrying out customs procedures, and monitoring cargo flows.

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Questions:
1. What the order of performance of electronic document circulation is?
2. What legal support of electronic document circulation is in Ukraine?
3. What electronic document circulation providers do you know?
4. What particularity of applying of electronic document circulation in transport, customs clearance and cargo monitoring system?
5. What is the role of GS1 in logistics?
6. What is Global Data Synchronization Network?
7. What advantages of EDI do you know?
8. What the order of EDI implementation is?
9. What the order of process of EDI is?

Tests:

What type of message is confirmation that specified goods/consignments have been stuffed into or stripped from LCL-containers?
a) COSTCO;
b) COPRAR;
c) IFTMAN;
d) IFTMCS.

What type of message is a message to order to the container terminal that the containers specified have to be discharged from a seagoing vessel or have to be loaded into a seagoing vessel?
a) COSTCO;
b) COPRAR;
c) IFTMAN;
d) IFTMCS.

What type of message is a message from the party providing forwarding and/or transport services, to the party such as has been indicated in the contract, giving notice and details of the arrival of the consignment?
a) IFTMBC;
b) IFTMIN;
c) IFTMAN;
d) IFTMCS.

What type of message is a message from the party providing forwarding and/or transport services to the party booking those services, giving the confirmation information to the booking of the consignment concerned?
a) IFTMBC;
b) IFTMIN;
c) IFTMAN;
d) IFTMCS.

What type of message is a message from a party requesting space and/or giving brief details of a planned consignment for forwarding and/or transport services to the party providing those services?
a) IFTMBC;
b) IFTMIN;
c) IFTMAN;
d) IFTMCS.

What type of message is a message from a party definitely booking forwarding and/or transport services to the party providing those services?
a) IFTMBP;
b) IFTMIN;
c) IFTMBF;
d) IFTMCS.

TOPIC 7. GLOBAL STANDARDS OF IDENTIFICATION AND THEIR APPLYING IN THE ELECTRONIC ENVIRONMENT

Questions (tasks) for self-study:
1. Material flow identification standards GTIN (Global Trade Item Number).
2. GLN (Global Location Number) in supply chains.
3. The unique identification of the logistics unit SSCC (Serial Shipping Container Code)
4. The logistics label GS1.
5. Global asset use identifiers: GS1 Identification Keys for Asset Identification.
6. Global Shipment Identification Number (GSIN)
7. Global Identification Number for Consignment (GINC).

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Questions:
1. What is a GLN?
2. What aim of applying GLN is?
3. What is GTIN?
4. What aim of applying GTIN is?
5. What length of GTIN can be?
6. What mistakes can be in assigning a GTIN?
7. What is a SSCC?
8. What aim of applying SSCC is?
9. What benefits of applying SSCC do you know?
10. The logistics label GS1. Global asset use identifiers: GS1
11. Identification Keys for Asset Identification.
12. Global Shipment Identification Number (GSIN)
13. Global Identification Number for Consignment (GINC).

Tests:
What type of GS1 identificator is used for identification and traceability of pallets?
a) GLN;
b) GTIN;
c) SSCC;
d) GRAI.

What type of GS1 identificator is used to identify physical locations and parties where there is a need to retrieve pre-defined information to improve the efficiency of communication with the supply chain?
a) GLN;
b) GTIN;
c) SSCC;
d) GRAI.

What type of GS1 identificator identifies trade items as they move through the global supply chain to the ultimate end user?
a) GIAI;
b) GSIN;
c) GINC;
d) GRAI.

What type of GS1 identificator provides to identify each instance of an individual asset?
a) GIAI;
b) GSIN;

c) GINC;
d) GRAI.

What type of GS1 identificator provides to identify a shipment and is assigned by the seller of goods?
a) GIAI;
b) GSIN;
c) GINC;
d) GRAI.

What type of GS1 identificator provides to identify a consignment, which is a logical grouping of goods (one or more logistics units) transferred to a freight forwarder to be transported for a specific journey?
a) GIAI;
b) GSIN;
c) GINC;
d) GRAI.

TOPIC 8. INNOVATIVE TECHNOLOGICAL TRENDS IN LOGISTICS

Questions (tasks) for self-study:
1. Blockchain and logistics: Blockchain as a technology for the field of logistics. Modern shortcomings, problems, advantages and prospects of implementation of blockchain technology. IT solutions for international multimodal logistics, current state and prospects for development.
2. 3D Printing: Content of this technology. Key features of development, prospects for implementation and consequences of using 3D Printing.
3. The use of artificial intelligence in logistics: automation and continuous improvement of calculations. Current state and development prospects.
4. Big Data Analytics as a basis for optimizing the use of resources, improving customer service, reducing risk and creating new logistics business models.
5. Bionic enhancement technology as a basis for minimizing health and safety risks in the supply chain.

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Questions:

1. What is Blockchain?
2. What shortcomings and problems of Blockchain do you know?
3. What advantages of Blockchain in Logistics do you know?
4. What is 3D Printing?
5. What advantages of 3D Printing in Logistics do you know?
6. What advantages of Artificial Intelligence in Logistics do you know?
7. Why is Big Data Analytics important in Logistics?
8. What advantages of Bionic enhancement technology in Logistics do you know?