



**PAMIBIA UNIVERSITY  
OF SCIENCE AND TECHNOLOGY**

FACULTY OF COMPUTING AND INFORMATICS

DEPARTMENT OF INFORMATICS, JOURNALISM AND MEDIA TECHNOLOGY

<b>QUALIFICATION : Bachelor of Informatics, Bachelor of Computer Science</b>	
<b>QUALIFICATION CODE: 07BLSC</b>	<b>COURSE LEVEL: 6</b>
<b>COURSE: Information Technology in Logistics</b>	<b>COURSE CODE: ITL 611S</b>
<b>DATE: JULY 2025</b>	<b>SESSION: 2</b>
<b>DURATION: 3 Hours</b>	<b>MARKS: 100</b>

<b>SUPPLEMENTARY/ SECOND OPPORTUNITY EXAMINATION PAPER</b>	
<b>EXAMINER(S):</b>	<b>Mr. Admire Kachepa</b>
<b>MODERATOR (S):</b>	<b>Mr. Nkululeko Mthembo</b>

**THIS EXAMINATION PAPER CONSISTS OF 7 PAGES  
(INCLUDING THIS FRONT PAGE)**

Instructions for the Examiners

1. Answer **all questions**.
2. When writing take the following into account: The style should inform than impress, it should be formal, in third person, paragraphs set out according to ideas or issues and the paragraphs flowing in a logical order. Information provided should be brief and accurate.
3. Please, ensure that your writing is **legible, neat and presentable**.

## SECTION A

## MULTIPLE CHOICE QUESTIONS [20 Marks]

Answer all questions in this section.

1. What does IoT stand for?
  - A) Internet of Technology
  - B) Internet of Things
  - C) Interconnected Online Tools
  - D) Integrated Operating Technology
2. In which of the following areas is IoT commonly used?
  - A) Cooking only
  - B) Smart homes and industries
  - C) Office filing cabinets
  - D) Typewriting training
3. What does interoperability in IoT refer to?
  - A) Speed of internet
  - B) Devices working together from different vendors
  - C) Number of sensors used
  - D) Duration of device warranty
4. Which of the following is NOT typically found in an embedded system?
  - A) Microcontroller
  - B) Dedicated software
  - C) Hard disk drive
  - D) Sensors and actuators
5. Which model offers ready-to-use applications for IoT, usually through a subscription?
  - A) PaaS
  - B) SaaS
  - C) IaaS
  - D) DaaS
6. What is the main advantage of cloud computing?
  - A) Requires physical storage on-site
  - B) Offers fixed pricing only
  - C) Provides on-demand access to computing resources
  - D) Needs constant manual updates
7. What is a potential challenge of cloud computing?
  - A) Improved scalability
  - B) Reduced IT maintenance
  - C) Vendor lock-in
  - D) Global access

8. What is a major risk of storing sensitive data in the cloud?
- A) Faster data access
  - B) Greater hardware control
  - C) Data breaches and unauthorized access
  - D) Lower latency
9. What does Artificial Intelligence (AI) enable machines to do?
- A) Print physical objects
  - B) Edit genes
  - C) Mimic human intelligence
  - D) Create holograms
10. What is the main goal of Business Intelligence (BI)?
- A) To develop mobile apps
  - B) To manufacture hardware
  - C) To support better decision-making through data analysis
  - D) To design websites
11. Which of the following is a benefit of using BI tools?
- A) Increased manual workload
  - B) Slower decision-making
  - C) Enhanced data-driven insights
  - D) Higher storage costs
12. Which of the following technologies is commonly used in SCV to track the location of goods?
- A) Bluetooth
  - B) VPN
  - C) GPS
  - D) Firewall
13. What is the primary purpose of an IP address in a network?
- A) To manage network traffic and prevent congestion
  - B) To uniquely identify a device on a network
  - C) To provide encryption for secure communication
  - D) To assign a specific port number to a device
14. Automated decision systems involves the use of
- A) Rule-based expert systems to make decisions.
  - B) RFID-based systems to make the day-to-day decisions.
  - C) GDS-based systems to make tactical transportation decisions.
  - D) Day-to-day decisions using generic rules.

15. RFID is not really a new technology, but it is being hailed as an emerging technology for
- A) Tracking products as they move along the supply chain.
  - B) Connecting workers with the firm's system while out of the office.
  - C) Automating direct product data exchange between the key supply chain partners.
  - D) Smart BPM systems.
16. Information systems play a critical role in today's firms, and the most common enabler is
- A) the use of email
  - B) The use of cell phones and other telecommunication devices.
  - C) ERP systems.
  - D) Micro Soft systems.
17. What is the role of 'Support Activities' in the Value Chain Model?
- A) They directly create value for customers.
  - B) They provide necessary support to primary activities to function effectively.
  - C) They focus solely on marketing and sales.
  - D) They handle customer service and after-sales support.
18. How does the Value Chain Model assist businesses?
- A) By focusing solely on financial performance.
  - B) By analyzing internal activities to identify sources of competitive advantage.
  - C) By emphasizing external market trends over internal processes.
  - D) By simplifying the supply chain process.
19. The four major competitive strategies are
- A) Low-cost leadership, substitute products and services, customers; and suppliers.
  - B) Low-cost leadership, product differentiation, focus on market niche, and customer and supplier intimacy.
  - C) New market entrants, substitute products and services, customers, and suppliers.
  - D) Low-cost leadership, new market entrants, product differentiation, and focus on market niche.
  - E)
20. The six important business objectives of information technology are new products, services, and business models; customer and supplier intimacy; survival; competitive advantage; operational excellence; and
- A) Improved flexibility.
  - B) Improved decision making.
  - C) Improved business practices.
  - D) Improved efficiency.

## **SECTION B**

**[15 Marks]**

State whether statement is True/ False

Answer all questions in this section.

1. One of the main challenges of IoT is ensuring strong security and privacy.  
True2. In a star topology, all devices are connected to a single central device, usually a router or switch.
2. In a star topology, all devices are connected to a single central device, usually a router or switch.
3. Open-source software allows users to view, modify, and distribute the source code freely.
4. The main goal of the Value Chain Model is to reduce costs and improve operational efficiency.
5. The Value Chain Model can only be applied to manufacturing businesses.
6. The goal of supply chain optimization is to reduce costs while maintaining product quality and customer satisfaction.
7. Emerging technologies play a vital supporting role in customer service performance since this function is also involves in moving, storing, and distributing products in response to a customer order.
8. The Internet of things (IoT) is expected to drive value in the supply chain and logistics disciplines through faster transit times and enhanced customer interactions.
9. Radio-frequency identification (RFID) is the most popular automatic identification system currently in use.
10. The Internet has emerged as the measuring stick for logistics information technology during the first decade of the twenty-first century.
11. Electronic data interchange (EDI) is an example of a logistics-related transaction processing system.
12. Artificial intelligence refers to a computer-based discipline that leverages algorithms that can "learn" from data.
13. The origin of enterprise resource planning (ERP) systems can be traced back to finance and manufacturing.
14. Information systems play a critical role in information use and visibility during internal communications between many coworkers within an organization.
15. Data and information are synonymous terms.
- 16.

## SECTION C

(65 MARKS)

Answer all questions in this section.

### QUESTION ONE

[25 Marks]

- a. What is a Supply Chain Visibility System, and in what four ways is it important in modern logistics? [5 Marks]
- b. List and briefly explain three technologies commonly used in SCV systems. [6 Marks]
- c. Name FOUR ways in which SCV systems can help to improve inventory management. [4 marks]
- d. Describe two benefits of real-time data in supply chain visibility systems. [6 marks]
- e. Provide an example of how a company can use SCV to gain a competitive advantage. [4 Marks]

### QUESTION TWO

[25 Marks]

- a. Define cloud computing and explain its importance in today's technology landscape. [4 Marks]
- b. Differentiate between IaaS, PaaS, and SaaS with one example of each. [6 Marks]
- c. Name any **FIVE** benefits of using cloud computing for businesses. [5 Marks]
- d. Explain the difference between public, private, and hybrid cloud deployment models. [5 Marks]
- e. Identify and explain two challenges or risks associated with cloud computing. [5 Marks]

### QUESTION THREE

[15 Marks]

Michael E. Porter was the first to introduce the concept of value chain.

- A) What is the main purpose of Porter's value chain model? [5 Marks]
- B) Name and Explain the FIVE primary activities of a value chain? [10 Marks]

TOTAL MARKS 100