



PAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF COMPUTING AND INFORMATICS

DEPARTMENT OF INFORMATICS, JOURNALISM AND MEDIA TECHNOLOGY

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| QUALIFICATION : Bachelor of Informatics, Bachelor of Computer Science | |
| QUALIFICATION CODE: 07BLSC | COURSE LEVEL: 6 |
| COURSE: Information Technology in Logistics | COURSE CODE: ITL 611S |
| DATE: JUNE 2025 | SESSION: 1 |
| DURATION: 3 Hours | MARKS: 100 |

| FIRST OPPORTUNITY EXAMINATION PAPER | |
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| EXAMINER(S): | Mr. Admire Kachepa |
| MODERATOR (S): | Mr. Nkululeko Mthembo |

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 is an embedded system?
 - A) A general-purpose computer used for multitasking
 - B) A computer system that performs a specific, dedicated function
 - C) A large-scale mainframe system
 - D) A system used only in smartphones

2. Which of the following is NOT typically part of an IoT system?
 - A) Sensors
 - B) Data processing
 - C) Internet connection
 - D) Manual typewriters

3. What is the main function of sensors in IoT devices?
 - A) Display data to users
 - B) Process data
 - C) Collect data from the environment
 - D) Store data permanently

4. What is the role of cloud computing in IoT?
 - A) To design hardware
 - B) To collect and process data from IoT devices
 - C) To manufacture sensors
 - D) To clean data storage

5. What is the main function of firmware in an embedded system?
 - A) To clean the memory
 - B) To act as temporary storage
 - C) To control the hardware operations
 - D) To connect to the internet

6. Which of the following is a common use of IoT in smart homes?
 - A) Printing books
 - B) Voice-controlled lighting systems
 - C) Manual temperature adjustment
 - D) Landline phone calling

7. Which IoT service model provides complete infrastructure such as servers and storage for developing IoT solutions?
 - A) SaaS
 - B) DaaS
 - C) IaaS
 - D) CaaS

8. Which deployment model combines both public and private cloud environments?
 - A) Community Cloud
 - B) Hybrid Cloud
 - C) Private Cloud
 - D) Multi-Cloud
9. What does "vendor lock-in" refer to in cloud computing?
 - A) Losing all your cloud data
 - B) Being tied to one provider due to proprietary tools or services
 - C) Shared resources between companies
 - D) Temporary suspension of cloud access
10. What is 5G technology known for?
 - A) Creating virtual avatars
 - B) Providing ultra-fast wireless communication
 - C) Managing cryptocurrency wallets
 - D) Editing genetic material
11. What is the function of a data warehouse in BI?
 - A) To process transactions in real-time
 - B) To store and integrate data from different sources for analysis
 - C) To protect against cyber threats
 - D) To create animated graphics
12. How do RFID tags contribute to Supply Chain Visibility?
 - A) Encrypt customer passwords
 - B) Provide energy to warehouse systems
 - C) Track and identify items automatically
 - D) Create virtual meetings between suppliers
13. Which of the following is NOT typically a part of an SCV system?
 - A) Real-time shipment tracking
 - B) Customer satisfaction surveys
 - C) Inventory monitoring
 - D) Supplier performance tracking
14. Which protocol is used for securely transmitting data over the internet?
 - A) HTTP
 - B) FTP
 - C) SSL/TLS
 - D) SMTP
15. What is a switch used for in a computer network?
 - A) To connect multiple networks and route traffic
 - B) To filter traffic based on MAC addresses and forward it to the correct port
 - C) To provide wireless access to devices
 - D) To assign IP addresses to devices in a local network
16. What type of software is used to manage hardware components of a computer?
 - A) Application software
 - B) System software

- C) Utility software
 - D) Firmware
17. Which software is specifically designed for creating and managing databases?
- A) Spreadsheet software
 - B) Database Management System (DBMS)
 - C) Word Processor
 - D) Presentation Software
18. Today's ERP systems focus on
- A) providing real-time information within the enterprise
 - B) Facilitating collaboration efforts to improve quality management practices within the enterprise.
 - C) Improving the value of information found in legacy systems.
 - D) Facilitating collaboration efforts among trading partners.
19. Which of the following is NOT a primary activity in Porter's Value Chain Model?
- A) Inbound Logistics
 - B) Operations
 - C) Marketing and Sale
 - D) Human Resource Management
20. Automatic identification systems are an essential component in _____.
- A) Every Warehouse
 - B) Point-of-sale System
 - C) Decision Support System
 - D) Office Automation System

SECTION B

[15 Marks]

State whether statement is True/ False

Answer all questions in this section.

1. IoT devices always require internet connectivity to function.
2. Edge computing allows data to be processed closer to the device instead of in the cloud.
3. A VPN (Virtual Private Network) allows devices on a public network to communicate securely with a private network.
4. Operating systems, like Windows or macOS, are examples of application software.
5. In the Value Chain, the primary activities include Human Resource Management and Technology Development.
6. Outbound logistics in the Value Chain refers to the activities involved in receiving and storing raw materials.
7. Supply chain management involves only the activities related to sourcing raw materials.
8. Transportation companies that have implemented global positioning systems (GPS) have reported increased worker productivity, reduced operating costs, and improved customer relations.
9. Enterprise software applications increase the accessibility of information and can add value to internal as well as external process integration and can reduce the gaps found in people-oriented factors in supply chain management.
10. Warehouse management also includes the control of all inventories, such as raw materials, work-in-process, and finished goods when not in use.
11. Software viruses are viewed as the most important information technology issue that companies face today.
12. A hotel reservation system is a typical example of a management information system.
13. Information systems literacy describes the behavioural approach to information systems, whereas computer literacy describes the technical approach.
14. A transaction processing system is a computerized system that performs and records the daily routine transactions necessary to conduct business.

15 Cloud-based software allows for a great deal of customization.

SECTION C

(65 MARKS)

Answer all questions in this section.

QUESTION ONE

[25 Marks]

a. Compare and contrast SSDs (Solid-State Drives) and HDDs (Hard Disk Drives). Discuss their advantages and disadvantages. **[10 Marks]**

b.

1. What is Supply Chain Management (SCM)? **[3 Marks]**

2. Name SIX key components of Supply Chain Management? **[12 Marks]**

QUESTION TWO

[15 Marks]

Name FIVE challenges faced in Supply Chain Management?

QUESTION THREE

[25 Marks]

(a) According to Michael Porter, a firm can survive and succeed in the long run if it successfully develops strategies to confront the five competitive forces that shape the structure of competition in its industry such as; Rivalry of competitors within its industry, Threat of new entrants, Threat of substitutes, bargaining power of customers, Bargaining power of suppliers.

ABC Freight, a multinational logistics company engaged you as its IT consultant and you are required to present to its management how Information Technology can help ABC Freight to develop the following strategies. Write down your ideas for each of the strategies below.

1. Cost Leadership Strategy **[5 Marks]**
2. Differentiation Strategy **[5 Marks]**
3. Innovation Strategy **[5 Marks]**
4. Growth Strategies **[5 Marks]**
5. Alliance Strategies **[5 Marks]**

TOTAL MARKS 100