



Third Semester MBA Degree Examination, Dec.2024/Jan.2025
Information Technology for Managers

Max. Marks: 100

- Note: 1. Answer any FOUR full questions from Q.No.1 to Q.No.7.
 2. Question No. 8 is compulsory.
 3. M : Marks, L: Bloom's level, C: Course outcomes.*

| | | | M | L | C |
|-----|----|---|----|----|-----|
| Q.1 | a. | What do you understand by Information system? | 3 | L2 | CO1 |
| | b. | Describe the key aspects of management as control system. | 7 | L2 | CO1 |
| | c. | "Office Automation System (OAS) is transferring the workplace". Justify the given statement by discussing the characteristics and components of OAS. | 10 | L5 | CO2 |
| Q.2 | a. | Mention atleast 3 main components of information systems. | 3 | L1 | CO2 |
| | b. | "The implementation of Management Information Systems (MIS) and the specific components vary depending on the needs of the organisation". Explain the statement by mentioning the different MIS components and their functions. | 7 | L3 | CO1 |
| | c. | What is System Analysis? Explain the roles and responsibilities of a system analyst. | 10 | L3 | CO2 |
| Q.3 | a. | State atleast 3 benefits of MIS to organisations. | 3 | L1 | CO1 |
| | b. | Discuss the typical applications of Transaction Processing System (TPS) in any organisation. | 7 | L4 | CO2 |
| | c. | Discuss the impact of information technology on society. | 10 | L3 | CO3 |
| Q.4 | a. | What do you understand by "Network Topology"? | 3 | L2 | CO3 |
| | b. | Write a brief note on "Augmented Reality" and "Extended Reality". | 7 | L3 | CO4 |
| | c. | Discuss the "Waterfall method" by illustrating the Structured Systems Analysis and Design Method stages in an online retail organisation. | 10 | L4 | CO3 |

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|-----|---|--|----|----|-----|
| Q.5 | a. | What do you understand by "Context Diagram Decision Table"? | 3 | L2 | CO3 |
| | b. | "Human Resource Information System – HRIS Streamlines Organisation Processes". Justify the statement by discussing significance of HRIS in end to end HR Management Processes. | 7 | L4 | CO4 |
| | c. | Examine the stages in system analysis in a manufacturing organisation. | 10 | L4 | CO4 |
| Q.6 | a. | What is RDBMS? Give atleast one example. | 3 | L2 | CO4 |
| | b. | Explain the six stages of Data Processing. | 7 | L3 | CO3 |
| | c. | Discuss the components of Database Management System [DBMS]. | 10 | L4 | CO3 |
| Q.7 | a. | Mention atleast 3 types of Data Processing. | 3 | L2 | CO3 |
| | b. | Write a brief note on application of IoT in Business. | 7 | L3 | CO3 |
| | c. | Discuss in detail atleast 5 applications of Artificial Intelligence in Business. | 10 | L3 | CO4 |
| Q.8 | CASE STUDY : The hospitality Industry comprises of departments establishments responsible for providing guests with bed and food at a certain cost. A waiter takes an order at a table and then enters it online through a hand held device or via one of the six terminals located in the restaurant dining room. The order is routed to a printer in the appropriate preparation area. i.e if its a salad or a ice-cream it will be the cold item printer mean while if it's a hot sandwich , hot dosa, it will be hot item printer and a beverage order will be received by a Café printer. A Customer's meal checklist i.e.bill for the items ordered along with the respective prices are automatically generated. The application of Management Information System in the hotel Industry to a large extent has enhanced the efficiency and the needs/wants of the customers have been addressed effectively. By implementing MIS errors have been minimized , issues with respect to waiter's handwriting resulting in a faulty have reduced and also the old system of three carbon copies gives check system has been received. This has also enabled the waiters to check the availability of the dish at the time of taking orders, resulting in a better service to the consumers. The system has also enabled the restaurants to track weekly sales totals, planning for cost controls etc. Questions : | | | | |
| | a. | Explain with a neat diagram the process on how consumer order are converted to final service in restaurants. | 10 | L3 | CO2 |
| | b. | Discuss how MIS can improve the order taking process in restaurants. | 10 | L3 | CO2 |

Third Semester MBA Degree Examination, Dec. 2024/Jan. 2025
Information Technology for Managers (Questions & Solutions)

| Question Number | Sub Question Numbers | Questions | Marks |
|-----------------|----------------------|---|-----------|
| 1 | A | What do you understand by information system? | 3 |
| | B | Describe the key aspects of management as a control system. | 7 |
| | C | "Office Automation System (OAS) is transferring the workplace." Justify the given statement by discussing the characteristics and components of OAS. | 10 |
| 2 | A | Mention atleast 3 main components of information systems | 3 |
| | B | "The implementation of Management Information Systems (MIS) and the specific components vary depending on the needs of the organisation". Explain the statement by mentioning the different MIS components and their functions. | 7 |
| | C | What is system analysis? Explain the roles and responsibilities of a system analyst. | 10 |
| 3 | A | State at least 3 benefits of MIS to organisations. | 3 |
| | B | Discuss the typical applications of Transaction Processing System (TPS) in any organisation | 7 |
| | C | Discuss the impact of information technology on society. | 10 |
| 4 | A | What do you understand by "Network Topology"? | 3 |
| | B | Write a brief note on "Augmented Reality" and "Extended Reality". | 7 |
| | C | Discuss the "Waterfall method" by illustrating the Structured Systems Analysis and Design Method stages in an online retail organisation. | 10 |
| 5 | A | What do you understand by "Context Diagram Decision Table"? | 3 |
| | B | "Human Resource Information System - HRIS Streamlines Organisation Processes". Justify the statement by discussing significance of HRIS in end to end HR Management Processes. | 7 |
| | C | Examine the stages in system analysis in a manufacturing organisation. | 10 |

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|---|---|--|----|
| 6 | A | What is RDBMS? Give atleast one example. | 3 |
| | B | Explain the six stages of Data Processing | 7 |
| | C | Discuss the components of Database Management System [DBMS]. | 10 |
| 7 | A | Mention at least 3 types of Data Processing. | 3 |
| | B | Write a brief note on application of IoT in Business. | 7 |
| | C | Discuss in detail atleast 5 applications of Artificial Intelligence in Business. | 10 |
| 8 | | <p>CASE STUDY :</p> <p>The hospitality Industry comprises of departments establishments responsible for providing guests with bed and food at a certain cost. A waiter takes an order at a table and then enters it online through a hand held device or via one of the six terminals located in the restaurant dining room. The order is routed to a printer in the appropriate preparation area. i.e if its a salad or a ice-cream it will be the cold item printer mean while if it's a hot sandwich, hot dosa, it will be hot item printer and a beverage order will be received by a Café printer. A Customer's meal checklist i.e.bill for the items ordered along with the respective prices are automatically generated. The application of Management Information System in the hotel Industry to a large extent has enhanced the efficiency and the needs/wants of the customers have been addressed effectively. By implementing MIS errors have been minimized, issues with respect to waiter's handwriting resulting in a faulty have reduced and also the old system of three carbon copies gives check system has been received. This has also enabled the waiters to check the availability of the dish at the time of taking orders, resulting in a better service to the consumers. The system has also enabled the restaurants to track weekly sales totals, planning for cost controls etc.</p> <p>Questions :</p> | |
| | A | Explain with a neat diagram the process on how consumer order are converted to final service in restaurants. | 10 |
| | B | Discuss how MIS can improve the order taking process in restaurants. | 10 |

Solutions

Q1A. What do you understand by information system? (3 Marks)

An **Information System (IS)** is a coordinated set of components and resources designed to collect, process, store, and distribute information. It supports decision-making, coordination, control, analysis, and visualization in an organization.

Types: TPS, MIS, DSS, ESS

Components: Hardware, Software, Data, People, and Processes.

Q1B. Describe the key aspects of management as a control system. (7 Marks)

Management as a control system involves:

- **Planning:** Setting goals and determining how to achieve them.
- **Organizing:** Allocating resources and assigning tasks.
- **Leading:** Directing and motivating people.
- **Controlling:** Monitoring performance, comparing with goals, and taking corrective action.

Q1C. OAS is transforming the workplace. Justify. (10 Marks)

Office Automation System (OAS) includes tools like word processors, email, scheduling systems, and video conferencing.

Characteristics:

- Enhances productivity
- Reduces paperwork
- Enables remote work.

Components:

- Document management
- Scheduling tools
- Communication platforms
- Data storage.

Q2A. Mention at least 3 main components of information systems. (3 Marks)

1. **Hardware**

2. **Software**

3. **Data**

Other components include people and processes.

**Q2B. Explain the statement by mentioning MIS components and functions.
(7 Marks)**

MIS Components:

- **Hardware:** Computers and networks
- **Software:** Applications and databases
- **People:** Users and IT staff
- **Data:** Business information
- **Processes:** Procedures for processing data

Functions:

- Collecting
- Storing
- Processing
- Disseminating information to support management decisions.

Q2C. What is system analysis? Roles of system analyst. (10 Marks)

System Analysis: Study of an existing system to improve or replace it.

Roles of System Analyst:

- Liaison between stakeholders and developers
- Requirements gathering
- Feasibility analysis
- System design and testing
- Documentation and training

Q3A. State at least 3 benefits of MIS to organizations. (3 Marks)

1. Improved decision-making
2. Enhanced efficiency
3. Real-time reporting

Q3B. Typical applications of TPS in an organization (7 Marks)

Transaction Processing System (TPS):

- Order processing
- Payroll system
- Inventory management
- Billing systems
- Reservation systems

Q3C. Impact of IT on society (10 Marks)

- Increased connectivity
- Automation of work
- Online education and services
- Data privacy concerns
- Digital divide issues

Q4A. What is Network Topology? (3 Marks)

Network Topology: Physical or logical layout of a network.

Types:

- Bus
- Star

- Ring
- Mesh

Q4B. Augmented and Extended Reality (7 Marks)

- **Augmented Reality (AR):** Adds digital elements to the real world (e.g., Snapchat filters).
- **Extended Reality (XR):** Umbrella term for AR, VR, and MR enhancing or simulating reality.

Q4C. Waterfall Method with SSADM Stages (10 Marks)

Waterfall Model: Linear SDLC model with distinct phases:

1. Feasibility Study
2. Requirements Analysis
3. System Design
4. Implementation
5. Testing
6. Maintenance

Example: For online retail each phase involves detailed planning before moving to the next.

Q5A. What is Context Diagram Decision Table? (3 Marks)

- **Context Diagram:** High-level data flow diagram showing system boundaries.
- **Decision Table:** Tabular method to represent logic and rules in system decision-making.

Q5B. Significance of HRIS in HR Management (7 Marks)

HRIS Benefits:

- Centralized data
- Payroll and benefits management
- Talent acquisition and training

- Performance tracking
- Reduced errors and time

Q5C. Stages in System Analysis in Manufacturing (10 Marks)

1. Problem identification
2. Requirement gathering
3. Feasibility study
4. System design
5. Implementation
6. Evaluation and maintenance

Q6A. What is RDBMS? Give one example. (3 Marks)

RDBMS: Relational Database Management System stores data in tables.

Example: MySQL, Oracle, PostgreSQL

Q6B. Six Stages of Data Processing (7 Marks)

1. Data collection
2. Data preparation
3. Data input
4. Data processing
5. Data output
6. Data storage

Q6C. Components of DBMS (10 Marks)

1. Database Engine
2. Database Schema

3. Query Processor
4. Transaction Manager
5. Reporting Tools

Q7A. Mention at least 3 types of Data Processing (3 Marks)

1. Batch processing
2. Real-time processing
3. Online processing
4. Distributed
5. Time-sharing

Q7B. IoT Applications in Business (7 Marks)

- Smart logistics and inventory
- Predictive maintenance
- Energy management
- Smart agriculture
- Connected healthcare

Q7C. 5 Applications of AI in Business (10 Marks)

1. Customer service (chatbots)
2. Predictive analytics
3. Fraud detection
4. Personalization in marketing
5. Process automation (RPA)

Q8A. Explain with a neat diagram the order-to-service process in a restaurant (10 Marks)

Process Flow:

1. Order input via handheld/terminal
2. Routing to specific kitchen printers
3. Preparation of food
4. Bill generation
5. Service to customer

(Diagram: You can sketch a flow diagram from order input → printer → kitchen → billing → customer.)

Q8B. How MIS improves order taking in restaurants (10 Marks)

- Reduces errors in manual orders
- Real-time item availability
- Streamlined billing
- Faster service
- Sales tracking and reporting