

Faculty of Management Studies

End Semester Examination May 2025

MS5CO15 Management Information Systems

Programme	:	MBA	Branch/Specialisation	:	-
Duration	:	3 hours	Maximum Marks	:	60

Note: All questions are compulsory. Internal choices, if any, are indicated. Assume suitable data if necessary.
 Notations and symbols have their usual meaning.

Section 1 (Answer all question(s))

Marks CO BL
 1 1 2

Q1. What is the primary need for a management information system (MIS) in an organization?

Rubric	Marks
To provide accurate and timely information for decision-making	1

- To increase manual paperwork
- To provide accurate and timely information for decision-making
- To replace human employees with machines
- To reduce the cost of raw materials

Q2. How does blockchain enhance MIS?

1 1 3

Rubric	Marks
By making data tamper-proof and more secure	1

- By making data tamper-proof and more secure
- By increasing the risk of cyberattacks
- By eliminating the need for databases
- By reducing transparency in transactions

Q3. The administrative model of decision-making, proposed by Herbert Simon, suggests that:

1 2 2

Rubric	Marks
Decision-making is bounded by rationality and satisficing	1

- Decision-makers always have complete information
- Decision-making is bounded by rationality and satisficing
- Managers analyze every possible alternative before making a choice
- Decision-making follows a strictly logical process without limitations

Q4. Which of the following is not a key attribute of useful information?

1 2 3

Rubric	Marks
Ambiguity	1

- Accuracy
- Relevance
- Timeliness
- Ambiguity

Q5. In which network topology do all devices connect to a central hub?

1 3 2

Rubric	Marks
Star	1

- Star
- Mesh
- Ring
- Bus

Q6. What is the primary function of a Geographical Information System (GIS)?

1 3 4

Rubric	Marks
Analyzing and visualizing spatial and geographic data	1

- Managing financial transactions
- Analyzing and visualizing spatial and geographic data
- Processing payroll information
- Storing customer emails

Q7. Which of the following is not a phase in the SDLC?

1 4 2

Rubric	Marks
Random Execution	1

- Requirement analysis
- System design
- Random execution
- Maintenance

Q8. What is the primary purpose of a decision support system (DSS)?

1 4 4

Rubric	Marks
To assist managers in complex decision-making	1

- To replace all human decision-making
- To assist managers in complex decision-making
- To perform simple arithmetic calculations
- To store large amounts of raw data without analysis

Q9. Which of the following is not an ethical challenge in IT?

1 5 1

Rubric	Marks
Automated transaction processing	1

- Data privacy concerns
- Unauthorized data access
- Transparent and responsible data usage
- Automated transaction processing

Q10. Which of the following is an example of a cross-functional MIS?

1 5 3

Rubric	Marks
Enterprise Resource Planning (ERP)	1

- Inventory management system
- Enterprise resource planning (ERP)
- Basic payroll processing system
- Word processing software

Section 2 (Answer all question(s))

Marks CO BL

Q11. What are the key objectives of a management information system (MIS)?

2 1 2

Rubric	Marks
Two key objectives of MIS (e.g., decision support, efficiency, competitive advantage): 2 marks	2

Q12. (a) Discuss the contemporary approaches to management information systems (MIS).

6 1 2

Rubric	Marks
As per explanation -6marks	6

(OR)

(b) How does MIS act as an instrument for organizational change?

Rubric	Marks
As per explanation -6marks	6

Section 3 (Answer all question(s))

Marks CO BL

Q13. What are the key differences between structured and unstructured decisions?

2 2 4

Rubric	Marks
Key differences between them: 2 marks	2

Q14. (a) Explain the attributes of high-quality information and their impact on decision-making.

6 2 3

Rubric	Marks
Explanation of key attributes (e.g., accuracy, completeness, relevance, timeliness): 3 marks	6
Impact on decision making- 3marks	

(OR)

(b) How does Herbert Simon's concept of bounded rationality impact decision-making in organizations?

Rubric	Marks
Explanation of bounded rationality and its concept: 2 marks How it impact decision making -4 marks	6

Section 4 (Answer all question(s))

Marks CO BL

Q15. What are the different types of network topologies?

2 3 2

Rubric	Marks
As per explanation-types of network topologies (e.g., star, ring, mesh): 2 marks	2

Q16. (a) Discuss the organizational impact of IT capabilities and their importance in modern businesses.

6 3 4

Rubric	Marks
Organizational impact—3 marks	
Importance marks - 3marks	6

(OR)

(b) What is data warehousing? How does it support business intelligence?

Rubric	Marks
Definition of data warehousing: 2 marks	6
Role of data warehousing in business intelligence: 4 marks	

Section 5 (Answer all question(s))

Q17. What is the role of CASE (Computer-Aided Software Engineering) tools in system development?

Marks CO BL

2 4 3

Rubric	Marks
Definition of CASE tools: 1 mark	2
Explanation of their role in system development (e.g., automation, documentation, design assistance): 1 mark	

Q18. (a) Explain the phases of the systems development life cycle (SDLC) and their importance.

6 4 4

Rubric	Marks
Introduction to SDLC: 1 mark	6
Explanation of key phases (Planning, Analysis, Design, Implementation, Maintenance): 3 marks	
Importance of SDLC in system development: 2 marks	

(OR)

(b) Compare and contrast Decision Support Systems (DSS) and Group Decision Support Systems (GDSS).

Rubric	Marks
	6
Comparison of DSS and GDSS with examples: 6 mark	

Section 6 (Answer all question(s))

Q19. How does fuzzy logic improve decision-making in business applications?

Marks CO BL

2 5 3

Rubric	Marks
As per Explanation- 2marks	2

Q20. (a) How do expert systems and executive information systems (EIS) help in managerial decision-making?

6 5 1

Rubric	Marks
Definition of Expert Systems and EIS: 2 marks Explanation of how they support managerial decision-making: 4 marks	6

(OR)

(b) Discuss the security and ethical challenges associated with IT applications in business.

Rubric	Marks
Security Challenges— 3 marks Ethical Challenges - 3 marks	6

Section 7 (Answer all question(s))

Marks CO BL

10 5 4

Q21. Case Study

OmniTech Solutions, a global manufacturing firm, faced challenges in managing data silos, slow decision-making, and cybersecurity risks. Departments such as finance, HR, and supply chain operated on separate systems, leading to inefficiencies. To overcome these issues, the company implemented Enterprise Resource Planning (ERP) and Customer Relationship Management (CRM) systems, integrating all business functions. To enhance decision-making, OmniTech adopted an AI-driven Decision Support System (DSS) that analyzed historical data for demand forecasting and inventory management. Additionally, an expert system was introduced for automated quality control checks in production. To modernize IT infrastructure, the company shifted to a cloud-based system and implemented Geographical Information Systems (GIS) to track supply chain logistics. The adoption of prototyping and CASE tools in software development enabled OmniTech to launch a mobile application for suppliers and customers, reducing order processing delays. With increasing digitalization, the company also focused on cybersecurity and ethical AI governance to prevent data breaches and biases in automated decision-making. These efforts resulted in faster operations, better customer engagement, and a competitive edge in the market.

Questions:

- How did OmniTech use ERP and CRM to streamline its business operations?
- What role did AI-driven DSS and expert systems play in improving decision-making?
- Why is cybersecurity and ethical AI governance important in digital transformation?

Rubric	Marks
As per Explanation a) 3 marks b) 3 marks c) 4 marks	10
