

**MANAGEMENT INFORMATION SYSTEM  
(MCAP 1105)**

**Time Allotted: 3 hrs**

**Full Marks: 70**

*Figures out of the right margin indicate full marks.*

*Candidates are required to answer Group A and*

*Any 5 (five) from Group B to E, taking at least one from each group.*

*Candidates are required to give answer in their own words as far as practicable.*

**Group - A**

**(Multiple Choice Type Questions)**

1. Choose the correct alternative for the following: **10 × 1=10**
  - (i) Online transaction processing is used because
    - (a) it is efficient
    - (b) disk is used for storing files
    - (c) it can handle random queries
    - (d) Transactions occur in batches.
  - (ii) In MIS system design, the sources of information may be categorized as \_\_\_\_\_ and \_\_\_\_\_.
 

(a) internal, external	(b) personal, organizational
(c) useful, unuseful	(d) constructive, destructive.
  - (iii) The term used to describe those people whose jobs involve sponsoring and funding the project to develop, operate, and maintain the information system is
 

(a) information worker	(b) internal system user
(c) systems owner	(d) external system user.
  - (iv) An information system that supports the planning and assessment needs of executive management is
 

(a) DSS	(b) TPS	(c) ERP	(d) MIS.
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  - (v) Decision support systems are essential for
    - (a) day-to-day operation of an organization
    - (b) providing statutory information
    - (c) top level strategic decision making
    - (d) ensuring that organizations are profitable.

- (vi) Which of the following step(s) is/are the implementation plans involved in MIS?
 

(i) Preparing organizational plans	(ii) Planning of work flow
(iii) Training of personnel,	(iv) Development of software
(v) Acquiring computer hardware	

(a) (i), (ii) and (iii) only	(b) (i), (ii), (iii) and iv only
(c) (i), (ii), (iv) and v only	(d) all (i), (ii), (iii), (iv) and (v).
- (vii) Which of the following is included in the Office automation systems?
 

(i) Word processing	(ii) Electronic mail	(iii) Voice mail	(iv) Electronic calendaring	(v) Audio conferencing
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(a) (i), (ii), (iii) and v only	(b) (i), (ii), (iii) and (iv) only
(c) (i), (ii), (iv) and (v) only	(d) all (i), (ii), (iii), (iv) and (v).
- (viii) A context diagram is used
  - (a) as the first step in developing a detailed DFD of a system
  - (b) in systems analysis of very complex systems
  - (c) as an aid to system design
  - (d) as an aid to programmer.
- (ix) Which of the following individuals typically have less formal, advanced educational degrees and tend to process rather than create information?
 

(a) Knowledge workers	(b) Executives
(c) System analysts	(d) Data workers.
- (x) HIPO stand for
  - (a) hierarchy input process output
  - (b) hierarchy input plus output
  - (c) hierarchy plus input process output
  - (d) hierarchy input output process.

**Group - B**

2. (a) What is System? What are the major activities of a System? Why business is considered as a System?
- (b) A University has rule for students to give a grade based on % of marks.
  - (i) If % of marks  $\geq 90$  then 'O' grade
  - (ii) If % of marks  $\geq 80$  and  $\leq 89$  then 'E' grade
  - (iii) If % of marks  $\geq 70$  and  $\leq 79$  then 'A' grade
  - (iv) If % of marks  $\geq 60$  and  $\leq 69$  then 'B' grade
  - (v) If % of marks  $\geq 50$  and  $\leq 59$  then 'C' grade

(vi) If % of marks  $\geq 40$  and  $\leq 49$  then 'D' grade

(vii) Otherwise fail.

Draw a decision table for the above problem.

$$(1 + 3 + 3) + 5 = 12$$

3. (a) What is HIPO diagram? What are the advantages and limitations of HIPO diagram?
- (b) What do you mean by data flow analysis? What are the different data flow diagrams used in dataflow analysis? Write significance of each diagram.
- (c) What are the major components of an information system?

$$(2 + 3) + (1 + 1 + 3) + 2 = 12$$

**Group - C**

4. (a) What are the characteristics of information system? Discuss the organization, management and technology dimensions of information system.
- (b) Differentiate between structured and unstructured decision making with the help of suitable example.
- (c) Compare formal information system and informal information system. Give example of each.

$$(2 + 3) + 4 + 3 = 12$$

5. (a) Differentiate between data and information. Give example of each.
- (b) Explain Robert Anthony's hierarchy of management activity in detail.
- (c) What is role of information in decision making? Discuss with the help of suitable examples.

$$2 + 5 + 5 = 12$$

**Group - D**

6. (a) What are the principal types of information systems that support information worker activities in office?
- (b) What are the four stages of decision making as prescribed by Simon?

$$6 + 6 = 12$$

7. (a) Explain in detail Behaviour and Rational Model of decision making.

- (b) What are the characteristics of Transaction Processing System (TPS.)? How does it differ from MIS?

$$6 + (3 + 3) = 12$$

**Group - E**

8. (a) What is an expert system? What are the components used to develop an expert system?
- (b) What is knowledge? How information system uses knowledge?
9. (a) With suitable example, explain the purpose and role of Decision Support System in a business. What are different components of DSS?
- (b) What do you mean by information security? Discuss some security defences to be taken for information security.

$$(2 + 4) + (2 + 4) = 12$$

$$(5 + 2) + (2 + 3) = 12$$