



# BRAINWARE UNIVERSITY

Course – MCA

MIS and System Design (MCA-103)

(Semester – 1)

**Time allotted: 3 Hours**

**Full Marks : 70**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

## Group –A

(Multiple Choice Type Question)

1. Choose the correct alternatives for the following: 1 × 10 = 10

i) Spiral model is a method for software

- |                  |                  |
|------------------|------------------|
| a) Documentation | b) testing       |
| c) Development   | d) none of these |

ii) Which of the following is not a basis for classifying DSS?

- a) Degree of dependency
- b) Degree of non-proceduralality
- c) Case based vs. population based
- d) Institutional vs. ad hoc

iii) Which of the following is a characteristics of MIS?

- |                        |                  |
|------------------------|------------------|
| a) Management Oriented | b) Integrated    |
| c) Both (a) & (b)      | d) None of these |

iv) Automated Teller Machine is a/an

- |                  |                             |
|------------------|-----------------------------|
| a) TPS           | b) MIS                      |
| c) Expert System | d) Office Automation System |

v) The attribute AGE is calculated from DATE\_OF\_BIRTH. The attribute AGE is

- a) Single valued
- b) Multi valued
- c) Composite
- d) Derived

vi) The entity relationship set is represented in E-R diagram as

- a) Double diamonds
- b) Undivided rectangles
- c) Dashed lines
- d) Diamond

vii) A computer communication technology that provides a way to interconnect multiple computer across short distance is

- a) LAN
- b) MAN
- c) WAN
- d) Wireless network

viii) The internet is

- a) Network of networks
- b) Web site
- c) Host
- d) Server

ix) Amazon.com comes under the following model

- a) B2B
- b) B2C
- c) C2C
- d) C2B

x) World Wide Web uses \_\_\_\_\_ protocol.

- a) HTTP
- b) HTTPS
- c) FTP
- d) Both (a) and (b)

### Group – B

(Short Answer Type Question)

Answer any *three* of the following.

3 × 5 = 15

2) What is transaction? Explain briefly the role of Transaction Processing Systems (TPS) in business process.

1 + 4

- |   |     |
|---|-----|
| 3) Explain SDLC and its various phases?   | 5   |
| 4) What is network topology? Write the types of network topology.   | 2+3 |
| 5) Explain Weak Entity Set with example.  | 5   |
| 6) What is MIS? In a business pyramid, identify and define the roles of various Information System in the bottom, middle, and top levels of the organization. | 2+3 |

### Group – C

(Long Answer Type Question)

Answer any *three* of the following. 3 × 15 = 45

- |   |       |
|---|-------|
| 7) a) What is system? What are the different types of system? | 2+3   |
| b) What is DFD? What are the different symbols used in it?    | 2+3   |
| c) What is an Expert System? Give an example                  | 5     |
| 8) a) Describe the different model of E commerce              | 5     |
| b) Explain the limitations of Waterfall Model                 | 5     |
| c) What is Virtual Office?                                    | 5     |
| 9) a) Differentiate Data vs Information                       | 5     |
| b) Write down types of Real Time Systems                      | 5     |
| c) Describe Database Anomalies with example                   | 5     |
| 10) a) Explain Electronic Fund Transfer (EFT)                 | 5     |
| b) Describe Three Schema architecture of DBMS                 | 5     |
| c) Explain Super key with example                             | 5     |
| 11) Write short notes on any three of the following           | 3 × 5 |
| a) Phishing   |       |
| b) Database Schema  |       |
| c) Hacking  |       |
| d) Traditional Waterfall Model                                |       |
| e) Context Level Diagram                                      |       |