

**2 0 2 1**

*Full Marks : 70*

*Time : 3 hours*

*The figures in the right-hand margin indicate marks*

Answer **all** Parts as directed

Part—A

**(Objective Type Questions)**

1. (a) Select the most suitable answers of the following : 5×1

(i) Which one of the following is a characteristics of system?

(1) Central objective

(2) Abstract system

(3) Closed system

(4) None of these

(ii) Which of the following is the 1st step in the preliminary investigation?

(1) Technical feasibility

(2) Request clarification

(3) Request approval

(4) None of these

(iii) Graphical description of the data is known as

(1) DFD

(2) levelled DFD

(3) data dictionary

(4) None of the above

(iv) 3NF represent

(1) removal of transitive dependencies

(2) redundancy control

(3) anomalies

(4) None of these

(v) A decision tree is a diagram or chart that helps determine a course of

(1) action

(2) decision

(3) branch

(4) All of the above

(b) Fill in the blanks of the following : 5×1

(i) SDLC stands for ———.

- (ii) DFD stands for ———.
- (iii) A decision table is a graphical way to map the condition against ———.
- (iv) BCNF stands for ———.
- (v) An open rectangle represents ———.

Part—B

**(Short Answer Type Questions)**

Answer *any four* questions of the following : 4×5

- ✓ 2. What is DFD? Explain the tools of the DFD with diagram.
- ✓ 3. Explain the characteristics of the system.
- ✓ 4. Explain the role of system analyst.
- ✓ 5. Describe the context analysis diagram in SSAD.
- 6. What is data dictionary? Describe the basic symbols of data dictionary.
- 7. Differentiate between logical design and physical design.

Part—C

**(Long Answer Type Questions)**

Answer *any four* questions of the following :

4×10

- ✓ 8. What is SDLC? Explain the phases of SDLC with diagram.
9. What is normalization? Explain the 1NF, 2NF and 3NF with table.
- ✓ 10. Explain the type of information system.
- ✓ 11. Describe the decision tree and decision table with example.
- ✓ 12. Describe the type of feasibility study in SSAD.
13. What is system design? Explain the functional specification of system design.

\*\*\*