

2024

Time : 3 hours

Full Marks : 70

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

The figures in the margin indicate full marks.

*Answer from **all** the Groups as directed.*

(SSAD)

Group – 1

(Objective Type Questions)

[A] Select the most suitable answer of the following : **1×5 = 5**

(a) The system have been classified in different ways :

(i) Physical or abstract

(ii) Open or closed

(iii) Man-Made Information system

~~(iv) All of these~~

(b) The symbol is used in a flowchart to represent a step that gets information from user :

~~(i)~~ Input / output

(ii) Process

(iii) Selection

(iv) None of these

(c) An open rectangle :

(i) Define a source or destination of system data

(ii) Identifies the Data flow

(iii) Represent a process that transform incoming Data flow

~~(iv)~~ Is a data store-data at rest

(d) The Primary tool used in structured design is a :

(i) Structure chart

~~(ii)~~ Data flow chart

(iii) Program flow chart

(iv) Module

(e) The Data Flow Diagram (DFD) show :

(i) The flow of Data

(ii) The process

(iii) Storage

~~(iv)~~ All of these

[B] Fill in the blanks of the following : $1 \times 5 = 5$

- (a) BCNF stands for Boyce-Codd Normal Form
- (b) HIPO stands for Hierarchy Input Process Output
- (c) 3NF stands for 3rd Normal Form
- (d) An open rectangle represents Data-Store
- (e) Decision tree uses Sequential Decision

Group – B

(Short-answer Type Questions)

2. Answer any four questions of the following :

$5 \times 4 = 20$

- (a) Describe the characteristics of the system.
- (b) What is DFD ? Explain the tools of DFD.
- (c) Differentiate between System Analysis and System Design.
- ☒ (d) Explain the main four feasibility study in SSAD. Tech, legal, operation, scheduling, economic, social
- (e) Explain the Decision Tree and Decision Table.
- (f) Write short notes on any two of the following :
 - (i) System Testing
 - (ii) MIS
 - (iii) Structural English
 - (iv) ER Diagram

Group – C

(Long-answer Type Questions)

3. Answer any **four** questions of the following :

10×4 = 40

(a) What is SDLC ? Explain the stages of SDLC with diagram.

(b) What is Normalization ? Explain the 1NF, 2NF AND 3NF.

(c) Construct an entity-relationship diagram for Railway Reservation System.

(d) Explain the type of Information System in SSAD.

(e) Describe the role and responsibilities of System Analyst.

(f) Explain any **two** of the following :

(i) Context Levelled DFD

(ii) Logical and Physical Design

(iii) DSS

(iv) Data Dictionary

