Roll No. .....

Total No. of Questions : **9**] [Total No. of Printed Pages : **7**

(2035)

B.C.A. (CBCS) RUSA IVth Semester Examination

4272

SYSTEM ANALYSIS AND DESIGN

Paper : BCA-0403

Time : 3 Hours] **[Maximum Marks : 70**

Note :- Attempt *five* questions in all, selecting *one* question from each Part–B, C, D and E. Question No. **1** (Part–A) is compulsory.

Part–A

(Compulsory Question)

1. (A) Following questions carry 1 mark each :

(i) ..... is an important factor of management information system.

(a) System

(b) Data

(c) Process

(d) All of these

(ii) In a DFD external entities are represented by a :

(a) Rectangle

(b) Ellipse

(c) Diamond shaped box

(d) Circle

(iii) After the design phase the document prepared is known as ..... .

(a) System specification

(b) Performance specification

(c) Design specification

(d) None of these

(iv) A data flow can :

(a) Only emanate from an external entity

(b) Only terminate in an external entity

(c) May emanate and terminate in an external entity

(d) May either emanate or terminate in an external entity but not both

(v) The data Flow Diagram is the basic component of ..... system.

(a) Conceptual

(b) Logical

(c) Physical

(d) None of these

(vi) A computer-based information system :

(a) May require some tasks to be done manually

(b) Should not have any manual tasks

(c) Is always fully automated

(d) May use only computers

(vii) By operational feasibility we mean :

(a) The system can be operated nicely

(b) The system is unusable by operators

(c) The system can be adapted by an organization without major disruptions

(d) The system can be implemented

(viii) By technical feasibility of a solution we mean that :

(a) Technology is available to implement it

(b) Persons have technical ability to implement it

(c) Persons are available to implement it

(d) Funds are available to implement it

(ix) A solution is said to be feasible for implementation if :

(I) It is cost-effective and finance is available to implement it

(II) Technology is available to implement it

(III) It can be adapted to work in an organization's environment

(IV) It has been implemented in another organization

(a) (II) and (III)

(b) (I), (II) and (III)

(c) (I) and (IV)

(d) (I), (II) and (IV)

(x) In the Analysis phase, the development of the ..... occurs, which is a clear statement of the goals and objectives of the project.

(a) Documentation

(b) Flowchart

(c) Program specification

(d) Design [1×10=10]

(B) Write short notes for the following questions :

(i) What is software crises ? What are the factors responsible for that ?

(ii) What is Economic feasibility ?

(iii) Discuss Audit trails.

(iv) Explain Modularization.

(v) What is Unit testing ? [4×5=20]

Part–B

(Unit–I) [10×1=10]

Note :– Attempt any *one* question.

2. List all the phases of system development life cycle in order and explain them in detail.

3. How is initial investigation related to feasibility study ?

Part–C

(Unit–II) [10×1=10]

Note :– Attempt any *one* question.

4. Discuss the behavioral issues involved in understanding the analyst/user interface.

5. Elaborate technical and operational feasibility.

Part–D

(Unit–III) [10×1=10]

Note :– Attempt any *one* question.

6. List and illustrate the primary uses and elements of a decision table and decision trees.

7. What do you mean by leveling in DFDs ? Explain with the help of an example.

Part–E

(Unit–IV) [10×1=10]

Note :– Attempt any *one* question.

8. Explain the differences between White-box and Black-box testing.

9. Explain system quality assurance in detail.