

Roll No.

Total No. of Questions : 9
(1048)

[Total No. of Printed Pages : 7

**BCA (CBCS) RUSA IVth Semester
Examination**

4034

SYSTEM ANALYSIS AND DESIGN

Paper : BCA-403

Time : 3 Hours]

[Maximum Marks : 70

Note :- Attempt any *five* questions, selecting at least *one* out of *two* from each unit. All carry equal marks.

Question No. 1 is Compulsory.

(Compulsory Question)

1. (i) A system design aid should primarily :

- (a) Help analyse both data and activities
- (b) Help in documentation
- (c) Generate code
- (d) Using a graphical user interface
- (e) None of the above

- (ii) Structured Programming involves :
- (a) Decentralisation of program activity
 - (b) Functional modularisation
 - (c) Localisation of errors
 - (d) All of the above
 - (e) None of the above
- (iii) To reconstruct a system, which of the following key element(s) must be considered :
- (a) Feedback and environment
 - (b) Control and processors
 - (c) Outputs and inputs
 - (d) All of the above
 - (e) None of the above
- (iv) The conditions immediately outside a system is called :
- (a) The boundary
 - (b) The interface
- (c) The environment
- (d) The protocols
- (e) None of the above
- (v) A feasibility document should contain all of the following except :
- (a) Project name
 - (b) Problem descriptions
 - (c) Feasible alternative
 - (d) Data-flow diagrams
 - (e) None of the above
- (vi) Which of the following Information systems are aimed at improving the routine business activities on which all organizations depend ?
- (a) Management Information systems
 - (b) Decision support systems
 - (c) Transaction processing systems
 - (d) Management support systems
 - (e) Transaction Information systems

- (vii) Which of the following strategies are adopted if information requirements are not well-defined ?
- Rapid application development method
 - Structured analysis development method
 - Systems development life cycle method
 - Prototyping method
 - Spiral method
- (viii) Structured Programming involves :
- Functional modularization
 - Localization of errors
 - Decentralized programming
 - Stress on analysis
 - Stress on requirements gathering
- (ix) Which of the following is not a fact-finding technique ?
- Third party enquiry
 - Interview
 - Questionnaire
 - Record reviews
 - Observation
- (x) Which of the following questions are useful in evaluating data flow diagrams ?
- Are there any unnamed components in the data flow diagram ?
 - Are there any processes that do not receive input ?
 - Are there any data stores that are input but never referenced ?
 - Both (a) and (b) above
 - All (a), (b) and (c) above
- $1 \times 10 = 10$
- (Short Answer Type Questions)**
- (xi) What do you mean by System ? Explain open systems and closed systems.
- (xii) Define the importance of software requirement analysis.
- (xiii) Identify any two methods of doing cost benefit analysis. Write a brief note on each.
- (xiv) What are data flow diagrams ? How do they differ from structure charts ?
- (xv) What is the objective of testing ?
- $5 \times 4 = 20$

Attempt any *four* questions, selecting one from each Unit. All questions carry 10 marks.

Unit-I

2. What is Project Selection ? Discuss the steps required for managing project review and selection.
3. Explain the role of system analyst in every phase of s/w process. What will happen if a small error remains in SRS phase ?

Unit-II

4. Write and explain important characteristics of good SRS. How prototyping is useful in SRS ? Discuss technical & economical feasibility study.
5. Is Feasibility Study is necessary in software development ? Discuss it with different Feasibility Study.

Unit-III

6. Explain any *two* of the following :
 - (i) Data dictionaries
 - (ii) Decision tables
 - (iii) Process Organization

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Explain
(6)

7. (a) Discuss Top down and Bottom up variance detail.
- (b) What do you mean by audit trail ?

Unit-IV

8. What is Testing ? Discuss why testing is needed. Differentiate Integration Testing, System Testing and Acceptance Testing.
9. What are various approaches to design a good system ? How Database and Files assist in designing ?

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