

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

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(2)

- (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

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Turn Over

(vii) Which of the following strategies are adopted if information requirements are not well-defined ?

- (a) Rapid application development method
- (b) Structured analysis development method
- (c) Systems development life cycle method
- (d) Prototyping method
- (e) Spiral method

(viii) Structured Programming involves :

- (a) Functional modularization
- (b) Localization of errors
- (c) Decentralized programming
- (d) Stress on analysis
- (e) Stress on requirements gathering

(ix) Which of the following is not a fact-finding technique ?

- (a) Third party enquiry
- (b) Interview
- (c) Questionnaire
- (d) Record reviews
- (e) Observation

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(x) Which of the following questions are useful in evaluating data flow diagrams ?

- (a) Are there any unnamed components in the data flow diagram ?
- (b) Are there any processes that do not receive input ?
- (c) Are there any data stores that are input but never referenced ?
- (d) Both (a) and (b) above
- (e) All (a), (b) and (c) above

1×10=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 ?

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(5)

Turn Over

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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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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