Roll No. ....

Total No. of Questions: 9]

[Total No. of Printed Pages: 7

(1048)

# 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

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(1)

Turn Over

- (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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- (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 ? 5×4=20

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Turn Over

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

### Unit-I

- 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?

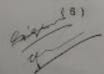
### Unit-II

- 4. Write and explain important characteristics of good SRS. How prototyping is useful in SRS? Discuss technical & economical feasibility study.
- 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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- (a) Discuss Top down and Bottom up variance detail.
  - (b) What do you mean by audit trail ?

#### Unit-IV

- 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?