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# **BCACAC 266**

# Credit Based Fourth Semester B.C.A. Degree Examination, May/June 2016 (New Syllabus) (2013 –14 Batch Onwards) (Elective) SYSTEM ANALYSIS AND DESIGN

Time: 3 Hours

Max. Marks: 80

**Note**: Answer **any ten** questions from Part **A** and **one full** question from **each** Unit of Part **B**.

### PART-A

1. a) What is System Development Life cycle?

 $(10 \times 2 = 20)$ 

- b) Who is a system analyst?
- c) Define business process reengineering.
- d) What is the difference between open and closed ended questions?
- e) What are the advantages of group interview?
- f) Define context diagram.
- g) What are disruptive technologies?
- h) List any four deliverables of logic modelling.
- i) Define conceptual data model.
- i) Differentiate form and reports.
- k) Define functional dependency.
- I) What is unit testing and system testing?



### PART-B

### Unit - I

- 2. a) What is a system? What are its parts? Explain.
  - b) Explain the features of transaction processing system.
  - c) What is prototyping? What are its advantages? How a prototype can be developed? (5+5+5)
- 3. a) Explain the following system concepts:
  - i) Decomposition

ii) Modularity

iii) Coupling

iv) Cohesion

- b) Describe the technical skills for the systems analysts.
- c) What is system analysis and design? Explain the system analysis phase of SDLC. (4+5+6)

## Unit - II

- 4. a) Explain any two contemporary methods for determining system requirements.
  - b) What are the major interview guidelines?
  - c) Explain agile usage-centered design technique for requirements determination.

(5+5+5)

5. a) What are CASE tools? How can CASE tools be used to support requirements determination?



- Explain any two traditional methods of collecting information system requirements.
- c) List and explain the three phases of planning game.

(5+6+4)

### Unit - III

- 6. a) What is structured English? Explain logic modelling using structured English.
  - b) What is data flow diagram? What are the guidelines for drawing DFDs?
  - with suitable examples explain relationships of different degrees in an E-R model.



- 7. a) Describe the deliverables and outcomes from process modelling.
  - b) What is a decision table? Explain with an example logic modelling using decision table.
  - c) What are the guidelines for displaying tables and lists? (5+5+5)

### Unit - IV

- 8. a) State the guidelines for menu design.
  - b) Explain the concept of normalization in database design.
  - c) What is programming? What are the five steps in accomplishing it? (5+5+5)
- a) Explain different types of validation tests.
  - b) What are the sub-steps of problem clarification?
  - c) List and explain the different methods of interacting with the system. (5+5+5)