

PAPER ID—10595

B.C.A. EXAMINATION, 2024

(Second Semester)

STRUCTURED SYSTEMS ANALYSIS AND
DESIGN

Code : BCA-109

Time : 3 Hours

Maximum Marks : 80

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting *one* question from each Section. Q. No. 1 is compulsory. All questions carry equal marks.

1. (a) Define open and closed systems.
- (b) What are the qualities of system analyst ?
- (c) Define technical and economical feasibility.
- (d) What is flow chart ? Explain its advantages and disadvantages.
- (e) Explain various activities during system design.
- (f) Distinguish between coupling and cohesion.
- (g) What is structured walk thoughts ?
- (h) Differentiate between verification and validation testing. 16

Section A

2. (a) What is information system ? Describe the different categories of information system.

(b) Define system planning. Explain the various steps that should be taken in planning a project. 8+8

3. (a) Explain the steps and activities in the design phase of System Development Life-Cycle (SDLC).

(b) Distinguish between initial investigation and feasibility study. In what way they are related? 8+8

Section B

4. Write short notes on the following : 8+8

(a) Decision table

(b) Data flow diagram

(c) Decision tree.

5. (a) Define the objectives of feasibility study. What steps are required in feasibility analysis?

(b) What is the purpose of cost/benefit analysis? Explain various steps in cost/benefit analysis. 8+8

Section C

6. (a) List and explain various parts of system design process with the help of diagram.

(b) What are the aims of structured design? Explain coupling and cohesion for structural design. 8+8

7. (a) What are the various input devices for feeding the raw data into the system? Explain various approaches for online data entry.

(b) Explain the various requirements of form design. List the three guidelines for good form design. 8+8

Section D

8. (a) What are the objectives of testing ?
Explain unit testing and integration testing.
- (b) Define the term quality assurance. Discuss its importance in system design. 8+8
9. (a) What is the importance of studying the maintenance of the system ? Explain different types of maintenance.
- (b) What is the need of standard software documentation ? Explain three documentation standards briefly. 8+8