

Roll No.

BCA–12

System Analysis and Design

Bachelor of Computer Application
Fourth Semester, Examination, 2018

Time : 3 Hours

Max. Marks : 80

Note : This paper is of **eighty (80)** marks containing **three (03)** Sections A, B and C. Learners are required to attempt the questions contained in these Sections according to the detailed instructions given therein.

Section–A

(Long Answer Type Questions)

Note : Section ‘A’ contains four (04) long answer type questions of nineteen (19) marks each. Learners are required to answer *two* (02) questions only.

1. What is purpose of an information system from a business perspective ? What role does it play in the business information value chain ? Explain with the help of few information systems.
2. What are the characteristics for Decision Support System ? How do they differ from those of Executive Support System ? Explain, how these two are being used in business.
3. What do you understand by the term Software Development Life Cycle (SDLC) ? Explain each phase

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in detail with the necessary diagram. Also explain the outcome of each phase.

4. What do you mean by software design ? Mention some of the principles and concepts required for a good software design.

Section-B

(Short Answer Type Questions)

Note : Section 'B' contains eight (08) short answer type questions of eight (08) marks each. Learners are required to answer *four* (04) questions only.

1. What are the five types of TPS in business organizations ? What functions do they perform ?
2. List and briefly describe the major types of system in organization.
3. How is software testing related to the quality of software ? Differentiate between validation and verification.
4. What is DFD (Data Flow Diagram) ? Explain the use of Decision trees and Decision table in System Analysis.
5. What is understood by the term MIS ? How does it assist managers in their day to day functioning ?
6. Discuss all possible techniques used for requirement elicitation.
7. Explain the importance of maintenance. Differentiate between preventive and perfective maintenance.
8. What is software reliability ? State its significance in software engineering. Differentiate between hardware and software reliability.

Section-C**(Objective Type Questions)**

Note : Section 'C' contains ten (10) objective type questions of one (01) mark each. All the questions of this Section are compulsory.

1. Prototyping is useful in :
 - (a) Requirements
 - (b) Design
 - (c) Implementation
 - (d) Testing
2. Which of the following helps in decision-making ?
 - (a) Data Flow Diagram
 - (b) Decision Table
 - (c) Both of the above
 - (d) None of the above
3. The most important feature of Spiral model is :
 - (a) Planning
 - (b) Designing
 - (c) Risk analysis
 - (d) Quality
4. Auditing is related to :
 - (a) Product
 - (b) Process
 - (c) Both of the above
 - (d) None of these

5. In maintenance system might be updated. (True/False)
6. While preparing a questionnaire question should be :
 - (a) Objective
 - (b) Descriptive
 - (c) Both of the above
 - (d) None of these
7. Transaction support systems are useful to manage day to day transactions of an organization. (True/False)
8. Requirements can be documented in :
 - (a) SRS
 - (b) Use case
 - (c) Test case
 - (d) All of the above
 - (e) Both (a) and (b)
9. White box testing is done by :
 - (a) Developer
 - (b) Tester
 - (c) Both of the above
 - (d) None of the above
10. Acceptance testing is done by :
 - (a) developer
 - (b) tester
 - (c) user
 - (d) All of the above
 - (e) Both (a) and (b)