BCA–15

Software Engineering

Bachelor of Computer Application
(BCA–11/16/17)

Fifth Semester, Examination, 2017

Time : 3 Hours **Max. Marks : 80**

Note : This paper is of **eighty (80)** marks containing **three (03)** Sections A, B and C. 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. Explain the different types of coupling and cohesion with examples.

2. Answer the following :

    (a) What quality is required from a system analyst ? 7

    (b) Discuss briefly the techniques used to collect data in analyzing a system. 6

    (c) Discuss various jobs of a system analyst. 6

3. Answer the following :

   (a) What are the main components of a Entity-Relationship diagram ?   8

   (b) What are decision trees ?   5

   (c) What is decision table ? How does it differ from decision tree ?   6

4. Answer the following :

   (a) Explain briefly the phases involved in the system development.   10

   (b) Explain spiral model.   9

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. Answer the following :

   (a) Define the term software. Distinguish between a program and a software product.

   (b) What are its characteristics ?

2. Answer the following :

   (a) Differentiate between coupling and cohesion measured in software.

   (b) What is the importance of data dictionary ?

3. Answer the following :

   (a) Explain software testing.

   (b) Compare and contrast alpha testing with Beta testing.

4. Answer the following :

    (a) What is feasibility Study ? Why is it important ?

    (b) Discuss the different sections of SRS.

5. What are the different strategies of testing ? Explain.

6. Draw an entity–relationship diagram for student enrollment system.

7. Answer the following :

    (a) What is the difference between an external entity and a process in a DFD ?

    (b) What is pseudo-code ? State its advantages.

8. Answer the following :

    (a) What are the different types of coupling ?

    (b) Give an example of logical cohesion.

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. A complete software program consists of source code and _____.

    (a) Documentation

    (b) Object Code

    (c) Data Flow Diagram

    (d) Flow Chart

2. _____ is a problem solving approach.

    (a) System Analysis

(b) Risk Analysis

(c) SIS

(d) System Analyst

3. _____ define how to accomplish the objectives.

(a) Fact Finding

(b) Detailed Investigation

(c) Feasibility Study

(d) Design

4. In system development, the total development process is divided into smaller activities called_____.

(a) Spiral

(b) Cohort

(c) Charting

(d) Phase

5. _____ is used in those systems, in which identification of requirements is difficult and requirements may change during the development process.

(a) SRS

(b) Prototype

(c) Elicitation

(d) Feasibility Study

6. _____ is the weakest coupling.

(a) Message Coupling

(b) Content Coupling

(c) Control Coupling

(d) Data Coupling

7. In _____ testing, the structure of the product is not considered.

   (a) Black Box

   (b) White Box

   (c) Stress Testing

   (d) Storage Testing

8. White box testing is also called _____.

   (a) Black Box

   (b) Structural Testing

   (c) Stress Testing

   (d) Storage Testing

9. Problem recognition is the step of _____ process.

   (a) Evaluation

   (b) Segmentation

   (c) Analysis

   (d) None of the above

10. In waterfall model, every phase is considered as a _____ phase.

   (a) Distinct

   (b) Similar

   (c) Connected

   (d) None of the above

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