

Roll No. ....

## **BCA–15**

### **Software Engineering**

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

Fifth 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. (a) What is the need of Software Engineering ? Explain.
- (b) What is decision table ? Explain with suitable example.
- (c) Why is testing important ? Discuss Black box testing.
2. (a) What is feasibility study ? Why is it important ?
- (b) What is prototyping model for software development ? Explain.
- (c) Differentiate between validation and verification.

**(B-86) P. T. O.**

3. (a) What are the various parameters which define the quality of software ? How can it be measured ?  
(b) Differentiate between coupling and cohesion.  
(c) Define entity relationship diagram with suitable example.
4. (a) What is data dictionary ? What is the use of data dictionary in software engineering ?  
(b) Explain Stress Testing and Storage Testing.  
(c) What are the characteristics of SRS (System Requirement Specification) ?

### **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 main merits of using DFD (Data Flow Diagram) ? Explain the benefit of using Data Flow Diagram.
2. What do you understand by testing strategies ? Explain performance testing.
3. What is input-output design ? Explain with the help of suitable example.
4. What are the different system development phases ? Explain prototyping model.
5. What is the difference between user transaction requirement and user design requirement ?

6. What is decision table ? What are the different sections in a decision table ?
7. What is coupling ? What are the different types of coupling ? Explain.
8. What do you understand by module concept in structured system design ? Explain types of modules.

### **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. Project risk factor is considered in \_\_\_\_\_ model.
  - (a) Spiral Model
  - (b) Waterfall Model
  - (c) Classical Waterfall Model
  - (d) Iterative Model
2. Functional testing is also known as \_\_\_\_\_ testing.
  - (a) Behaviour Testing
  - (b) White-Box Testing
  - (c) Acceptance Testing
  - (d) None of the above
3. Alpha testing is done by \_\_\_\_\_ .
  - (a) Customers
  - (b) End-Users
  - (c) Friendly Customers
  - (d) Developers

4. Reliability of software is usually estimated at \_\_\_\_\_ phase.
- (a) Testing Phase
  - (b) Development Phase
  - (c) Maintenance Phase
  - (d) Developed Phase
5. Black box testing is also known as \_\_\_\_\_ testing.
- (a) Structural
  - (b) Stress
  - (c) Storage
  - (d) Behavioral
6. \_\_\_\_\_ testing is conducted by end user rather than developer.
- (a) Performance
  - (b) Acceptance
  - (c) Storage
  - (d) Stress
7. \_\_\_\_\_ model uses as a risk reduction mechanism.
- (a) Spiral Model
  - (b) Waterfall Model
  - (c) Classical Waterfall Model
  - (d) Iterative Model

8. The term \_\_\_\_\_ is used to describe something that the enterprise/application recognizes in the area under investigation and wishes to collect and store data about.
- (a) Prototype
  - (b) Entity
  - (c) Risk
  - (d) Relationship
9. Software engineering is an engineering discipline whose goal is the \_\_\_\_\_.
- (a) Cost-effective development of software systems
  - (b) Operate the hardware of system
  - (c) An operating system
  - (d) None of the above
10. For software development life cycle you can prepare \_\_\_\_\_.
- (a) Flow chart
  - (b) Shell program
  - (c) Class
  - (d) None of the above