

S-797

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. Answer the following :
  - (a) Explain briefly the factors in which quality and productivity of software product depends.
  - (b) How can you compare a system analyst job with a politician ?
  - (c) What is feasibility study? Why is it important ?

2. Explain the following :
  - (a) Prototyping model
  - (b) Waterfall model
  - (c) Spiral Model
3. Answer the following :
  - (a) What are the main component of Entity relationship diagram ?
  - (b) What are decision trees ?
  - (c) What are the different sections in a decision table ?
4. Answer the following :
  - (a) What is Pseudo code ? State its advantages.
  - (b) What are the main merits of using DFD ?
  - (c) What are modules ? Specify *three* characteristics of a module.

### **Section–B**

#### **(Short Answer Type Questions)**

**Note :** Section ‘B’ contains eight (08) short answer type questions of eight (8) marks each. Learners are required to answer *four* (04) questions only.

1. Answer the following :
  - (a) List the members of software development team.
  - (b) There are some special category tests which are do not focus on the normal running of the system. List them.
2. Differentiate top-down and bottom-up integration method.

3. Answer the following :
  - (a) Why SRS is important ?
  - (b) Why integration testing is required ? Discuss the method of this testing.
4. What are the merits and demerits of Waterfall Model of system development ?
5. What is test specification ? Write the advantages and disadvantages of bottom-up integration method.
6. Answer the following :
  - (a) Explain failure rate curve for software in details.
  - (b) Comment on the statement Software does not wear out.
7. How can you examine a good questioner ? What are its types ?
8. What is a system prototype ? Will you recommend the use of prototype model ? When and Why ?

### **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. The overall plan for software integration and a description of specific tests are documented in the ..... .
  - (a) Test specification
  - (b) Flow chart
  - (c) Data flow diagram
  - (d) None of the above

2. .... testing depends on the capacity of disk or files.
  - (a) Capacity
  - (b) File
  - (c) Performance
  - (d) Storage
3. Black box testing is also known as ..... testing.
  - (a) Structural
  - (b) Stress
  - (c) Storage
  - (d) Behavioral
4. .... testing is conducted by end user rather than developer.
  - (a) Performance
  - (b) Acceptance
  - (c) Storage
  - (d) Stress
5. Spiral model uses ..... as a risk reduction mechanism.
6. 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

7. A/An ..... is a piece of information that the system needs to record about an entity.
- (a) Module
  - (b) Attribute
  - (c) Prototype
  - (d) Pseudo code
8. A ..... indicates the manner in which the entities are connected to one another.
- (a) Attribute
  - (b) Relationship
  - (c) Module
  - (d) Pseudo code
9. .... offers a concise way of summarizing a procedure, where decision must be made and action taken.
- (a) Module
  - (b) Attribute
  - (c) Prototype
  - (d) Pseudo code
10. When a module contains functions that are related by the fact that the functions must be executed in the same time span, the module is said to exhibit ..... cohesion.
- (a) Procedural
  - (b) Logical
  - (c) Sequential
  - (d) Temporal

