BCA-15

Software Engineering

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

5th Semester Examination, 2019 (June)

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

Note : This paper is of Eighty (80) marks divided into 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 any two (02) questions only.

(2×19=38)

1. Answer the following:

(a) What are the skills required to collect, analyze and record software requirements?

(b) Identify advantages and disadvantages of the spiral model.

(c) How to use the waterfall model for software development ?

2. Answer the following :

(a) Explain the role of system analyst in SDLC ?

(b) What do you understand by software testing? Explain.

(c) What do you understand by Structured System Design? Explain.

3. Answer the following :

(a) What happens during requirement engineering? Explain.

(b) What is software maintenance? Explain.

(c) Explain how to carry out white box [structured] testing. Explain.

4. Answer the following :

(a) What are the key challenges facing software engineering?

(b) Describe all software engineering activities that contribute to software quality assurance.

(c) Difference between storage testing & Performance testing.

S-504-BCA-15 [2]

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 any four (04) questions only.   (4×8=32)

1. Explain the significance of software engineering. Discuss the advantages of using any software standard for software development.

2. What is software development life cycle model? What is the need of software development life cycle?

3. What do you mean by cohesion and coupling in context of software design? How are concepts of cohesion and coupling useful in arriving at good software design?

4. What is Pseudo code? What are the advantages of Pseudo code? Explain.

5. What is data dictionary? Is there any use of data dictionary in Data Flow Diagram (DFD)?

6. What do you mean by software design? Explain evolution of software design.

7. Explain the need of a software Life Cycle Model.

8. Differentiate between decision tree and decision table. Explain their benefits.

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. (10×1=10)

1. Structured approach to software development include system models, notation and :

    (a) rules

    (b) design device

    (c) process guidance

    (d) All of above.

2. Which of the following is not a software process model.

    (a) Waterfall approach

    (b) Evolutionary development

    (c) Formal transposition

    (d) Data Flow Diagram.

3. Software engineering is an engineering disipiline

   (a) Software production

   (b) Software Testing

   (c) Software maintainance

   (d) None of these.

4. Feasibility study involves

   (a) information assessment

   (b) information collection

   (c) report writing

   (d) All of above.

5. Essential attributes of good software.

   (a) Maintainability

   (b) Dependability

   (c) Efficiency

   (d) All of above.

6. What key challenge faces by software engineering ?

(a) Legacy challenge

(b) heterogeneity

(c) delivery challenge

(d) All of above.

7. Software Validation is

(a) The process of checking that the system conforms to its specification

(b) The process of checking that it meets the real needs of the user of the system.

(c) both (a) and (b).

(d) None of these.

8. Software evolution is concerned with

(a) modifying existing software system to meet new requirements.

(b) Provide automated support for software process

(c) both (a) and (b).

(d) None of these.

9. Software system requirement are often classified as

   (a) Functional and Non-Functional.

   (b) Functional, Non-Functional and Domain

   (c) Functional and domain

   (d) None of these.

10. An independently deliverable piece of functionality providing access to its services through interfaces is called

   (a) Software Component

   (b) Hardware Component

   (c) Soflware elicitation

   (d) Requirement Gathering.

———————————