(6 Pages)

Reg. No. : .....

Code No. : 30254 E **Sub. Code : JMCA 51/ SMCA 51**

B.C.A. (CBCS) DEGREE EXAMINATION, APRIL 2022

Fifth Semester

Computer Application — Core

SOFTWARE ENGINEERING

(For those who joined in July 2016 onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. _____ is developed to meet the specific needs of a particular customer.
   (a) Custom software
   (b) Generic software
   (c) Embedded software
   (d) None of these

2. _____ software runs specific hardware devices which are typically sold on open market.
   (a) Custom software
   (b) Generic software
   (c) Embedded software
   (d) None of these

3. _____ requirements describe what the system must do.
   (a) Functional (b) Non-functional
   (c) Domain (d) Stack

4. _____ is an effective way to gather information from a group of people.
   (a) Interviewing (b) Brainstorming
   (c) Observation (d) Prototyping

5. _____ is a standard graphical language for modeling object oriented software.
   (a) UML (b) Java
   (c) .Net (d) C#

6. _____ represents linkages between classes.
   (a) Class (b) Associations
   (c) Attributes (d) Operations

7. ———— is a component that is defined at the programming language level.

(a) Module (b) Component

(c) Class (d) Package

8. Java uses ———— to implement subsystem.

(a) Module (b) Interface

(c) Class (d) None of these

9. ———— is the process of deliberately trying to cause failures in a system in order to detect any defects.

(a) Livelock (b) Deadlock

(c) Critical section (d) Mutual exclusion

10. ———— is a situation where two or more threads are stopped, waiting for each other.

(a) Function (b) Testing

(c) Dependency (d) Association

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Explain the role of stack holders in software engineering.

Or

(b) Explain object oriented paradiagm and procedural paradigm.

12. (a) Explain functional requirements.

Or

(b) Discuss use case analysis.

13. (a) What is UML? Discuss its features.

Or

(b) Write short notes on activity diagrams.

14. (a) Explain different types of cohesion.

Or

(b) Explain the techniques to make good design decisions.

15. (a) Discuss about defects in timing and co-ordination to ensure high quality.

Or

(b) How to manage the software projects.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Explain software quality.

Or

(b) Discuss classes and objects.

17. (a) Explain domain analysis.

Or

(b) Discuss briefly on brainstorming.

18. (a) Discuss associations with example.

Or

(b) Explain collaboration diagram.

19. (a) Explain the multiplayer architectural pattern and design principles.

Or

(b) Explain pipe and filter architectural pattern.

20. (a) Explain the principles of effective cost estimation.

Or

(b) Explain PERT chart and Gantt chart.

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