(6 Pages)

Reg. No. : ....

Code No. : 10531 E   Sub. Code : CMCA 42

B.C.A. (CBCS) DEGREE EXAMINATION, APRIL 2024.

Fourth Semester

Computer Application– Core

SOFTWARE ENGINEERING

(For those who joined in July 2021 – 2022)

Time : Three hours   Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer.

1. Which one of the following is not a standard software development process model?

    (a) Waterfall model

    (b) Watershed model

    (c) RAD model

    (d) V model

2. Object that collects data on request rather than autonomously is known as

    (a) Active Object   (b) Passive object

    (c) Multiple instance   (d) None of the above

3. How many phases are there in requirement analysis?

    (a) Three   (b) Four

    (c) Five   (d) Six

4. Which one of the following is a requirement that fits in a developer models?

    (a) Availability   (b) Testability

    (c) Usability   (d) Flexibility

5. If the function calls between two modules involve passing large chunks of shared data the modules are _____ coupled

    (a) loosely   (b) moderately

    (c) tightly   (d) not

6. _____ is a standard graphical language for modeling object oriented software

    (a) UML   (b) Java

    (c) .Net   (d) C#

7. The _____ metrics counts the number of nodes in the graph representing user defined declarations

   (a) size   (b) unit

   (c) token   (d) system

8. In design phase, which is the primary area concern?

   (a) Architecture   (b) Data

   (c) Interface   (d) All the above

9. The type of software testing in which each model is tested along in an accept to discover and errors in its code is known as _____

   (a) integration

   (b) acceptance testing

   (c) mutation testing

   (d) unit testing

10. _____ is the process of deciding the sequence a set of activities will be performed

    (a) Scheduling

    (b) Tracking

    (c) Testing

    (d) Planning

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) Define ER diagram. Discuss with example.

    Or

    (b) Write the principal idea of the evolutionary model and write the advantages and disadvantages.

12. (a) What are the responsibilities of a software project manager?

    Or

    (b) Write the functional requirements? Explain it.

13. (a) Why we need a standard modeling language? Explain.

    Or

    (b) Discuss about the approaches of software design.

14. (a) What are the different types of cohesion? Discuss it.

Or

(b) What is the importance of developing an architectural model?

15. (a) What is the purpose of earned value charts? Explain.

Or

(b) What is live lock? Explain it.

PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Write the features of object oriented language. Discuss it.

Or

(b) Describe Spiral model in detail.

17. (a) How to describe a single use case? Explain.

Or

(b) Explain about the techniques for gathering requirements.

18. (a) Define Collaboration diagram. Discuss it.

Or

(b) What is UML class diagram? Discuss with example.

19. (a) Explain about Architectural patterns in detail.

Or

(b) Explain the process of writing a good design document.

20. (a) Compare PERT chart and Gantt chart.

Or

(b) What are the defects handling stress and unusual situations? Explain.

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