

Reg. No. : .....

Code No. : 20239 E Sub. Code : SMCA 51/  
AMCA 51

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

Fifth Semester

Computer Application — Core  
SOFTWARE ENGINEERING

(For those who joined in July 2017 onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. \_\_\_\_\_ software is designed to be sold on open market.
- (a) Custom software  
(b) Generic software  
(c) Embedded software  
(d) None of these

2. \_\_\_\_\_ are also known as clients.
- (a) Customers (b) Users  
(c) Developers (d) Managers
3. \_\_\_\_\_ is a process by which a software engineer learns background information.
- (a) Domain analysis  
(b) Requirement analysis  
(c) Specification analysis  
(d) Information analysis
4. \_\_\_\_\_ is a statement about what the proposed system will do.
- (a) Task (b) Order  
(c) Requirement (d) Interface
5. \_\_\_\_\_ is used to show how two classes are related to each other.
- (a) Association (b) Generalization  
(c) Multiplicity (d) None of these
6. Aggregations are specified using a \_\_\_\_\_ symbol.
- (a) rectangle (b) circle  
(c) diamond (d) line

Page 2 Code No. : 20239 E

7. In \_\_\_\_\_ design, you start with very high level structure of the system.
- (a) top-down (b) bottom-up  
(c) architecture (d) class
8. \_\_\_\_\_ occurs when there are inter dependencies between one module and another.
- (a) Cohesion (b) Coupling  
(c) Utility (d) Network
9. \_\_\_\_\_ chart shows the sequence in which tasks must be completed.
- (a) PERT (b) Gantt  
(c) Earn value (d) None
10. \_\_\_\_\_ is the process of deciding the sequence a set of activities will be performed.
- (a) Scheduling (b) Tracking  
(c) Testing (d) Planning

Page 3 Code No. : 20239 E

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).  
Each answer should not exceed 250 words.

11. (a) Discuss the nature of software.
- Or
- (b) What is an object? Explain with example.
12. (a) What are functional requirements? Explain.
- Or
- (b) Give a brief account on generalization.
13. (a) What is reflexive association? Explain.
- Or
- (b) Explain sequence diagrams.
14. (a) Define coupling. What are the different types of coupling?
- Or
- (b) Explain Broker architectural pattern.
15. (a) Discuss project scheduling and tracking.
- Or
- (b) Explain the roles of development team.

Page 4 Code No. : 20239 E  
[P.T.O.]

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b)  
Each answer should not exceed 600 words.

16. (a) Explain in detail the activities common to software projects.

Or

- (b) Explain the features of object oriented language.

17. (a) Discuss and explain the techniques for analyzing and gathering requirements.

Or

- (b) Explain about difficulties and risks in domain and requirements analysis.

18. (a) Explain aggregation and interfaces.

Or

- (b) Explain State diagrams.

19. (a) Explain MVC architectural pattern.

Or

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

20. (a) Explain the defects in ordinary algorithms.

Or

- (b) Explain the defects in numerical algorithms.
-