

(6 pages)

Reg. No. :

Code No. : 21022

Sub. Code : GMCA 51

B.C.A. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2014.

Fifth Semester

Computer Application — Main

SOFTWARE ENGINEERING

(For those who joined in July 2012 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions

Choose the correct answer :

1. Software engineering primarily aims on developing
(a) Reliable software
(b) Cost-effective software
(c) Both (a) and (b)
(d) None of these
2. Encapsulation is known as
(a) Data sharing (b) Data hiding
(c) Data retrieval (d) Data transfer

3. The structured interview method includes the creation of
(a) Use case diagram (b) Data flow diagram
(c) Prototype (d) Questionnaire
4. Use cases and use case diagrams are used to define _____ of a system.
(a) Complexity (b) Criticality
(c) Stability (d) Behaviour
5. Object oriented modeling produces
(a) Robust design
(b) High quality software
(c) Well understood requirements
(d) All of these
6. The _____ is defined as a language for visual modeling that allows to specify, visualize, construct, understand and document the various artifacts of the system
(a) UML (b) XML
(c) HTML (d) PHP
7. Data structure suitable for the application is discussed in _____ design.
(a) Data (b) Architectural
(c) Procedural (d) Interface



8. The focus of the control in the sequence diagrams is represented by
(a) Dashed line (b) Square
(c) Rectangle (d) Solid line
9. Which of the following testing method is normally used as the acceptance test for a software system
(a) Regression testing (b) Integration testing
(c) Unit testing (d) Functional testing
10. Software testing technique are most effective if applied immediately after
(a) Requirement specification
(b) Design
(c) Coding
(d) Integration.

PART B — (5 × 5 = 25 marks)

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

11. (a) What is software engineering? Explain.
Or
(b) Explain the difficulties and risks in programming language choice and object oriented programming.

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12. (a) Write about domain analysis.
Or
(b) Explain the activities for managing changing requirements.
13. (a) Explain the various types of messages in UML with their notations.
Or
(b) Consider an operation to calculate fibonacci series of n numbers. Draw its activity diagram.
14. (a) How is object oriented design different from coding a software? Explain.

- Or
(b) Explain the principles leading to good design.

15. (a) Explain the defects in handling stress and unusual situations.

- Or
(b) Write about cost estimation.

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PART C — (5 × 8 = 40 marks)

Answer ALL questions choosing either (a) or (b).
Each answer should exceed 600 words.

16. (a) Explain the difficulties and risks in software engineering.

Or

- (b) What is object orientation? Explain the basic concepts of object orientation.

17. (a) What is requirement? Explain the various types of requirements.

Or

- (b) Explain the techniques for gathering and analyzing requirements.

18. (a) What is UML? Explain the essentials of UML class diagrams.

Or

- (b) Explain the following :
(i) Interaction diagrams.
(ii) State diagrams.

19. (a) Explain the process of design in detail.

Or

- (b) Explain the techniques for making good design decisions.

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20. (a) Discuss software testing.

Or

- (b) What is project management? Explain the various activities for project management.
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