

(6 pages)

Reg. No. :

Code No. : 7059

Sub. Code : ZCAM 15

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

First Semester

Computer Application – Core

OBJECT ORIENTED ANALYSIS AND DESIGN
USING UML

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL the questions.

Choose the correct answer :

1. Software development is _____ and always undergoing major change.
- (a) static (b) protected
(c) dynamic (d) public

2. A subclass inherits all of the properties and methods defined in its _____.
- (a) main class (b) inner class
(c) child class (d) super class
3. UML stands for _____.
- (a) Unified Modeling Language
(b) Union Method Language
(c) Unified Method Language
(d) Union Member Language
4. Which of the following diagram is time oriented?
- (a) Collaboration
(b) Sequence
(c) Activity
(d) Implementation
5. _____ is a creative activity that involves understanding the problem its associated constraints.
- (a) Modeling (b) Analysis
(c) Design (d) Implementation

Page 2

Code No. : 7059



6. Superclass-subclass relationships also known as
- (a) specialization hierarchy
 - (b) disjoint hierarchy
 - (c) jointness hierarchy
 - (d) generalization hierarchy
7. _____ provides a scheme for refining the subsystem or components of software systems.
- (a) Axioms (b) Corollaries
 - (c) Design Patterns (d) Class Design
8. _____ is a measure of the degree of interdependence between modules.
- (a) Cohesion (b) Coupling
 - (c) Modularity (d) Process
9. _____ testing assumes that the specific logic is important and must be tested to guarantee the system's proper functioning.
- (a) Black box (b) White Box
 - (c) Top-down (d) Bottom-up

10. In which types of testing Cyclomatic complexity is measured?
- (a) Black box testing
 - (b) White Box testing
 - (c) Yellow box testing
 - (d) Green box testing

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) Write short note on Encapsulation and Information hiding.
- Or
- (b) Why do you use object orientation? List out the benefits of object orientation.
12. (a) Discuss about the Booch Methodology.
- Or
- (b) Explain Static and Dynamic Models.
13. (a) Mention the steps for finding use cases.
- Or
- (b) Explain about a part-of-relationships aggregation and patterns.



14. (a) Writes a short note on Design Patterns.

Or

- (b) Explain Designing Methods and Protocols.

15. (a) Write short notes on Quality Assurance tests.

Or

- (b) Explain about Usability Testing.

PART C -- (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Explain about Class Hierarchy.

Or

- (b) Discuss about the Object Oriented software development lifecycle.

17. (a) Write the difference between design patterns and frameworks.

Or

- (b) Explain UML Extensibility.

Page 5

Code No. : 7059

18. (a) List out the guidelines for identifying super-sub relationship.

Or

- (b) Explain the Methods for ViaNet bank objects.

19. (a) Explain in detail about coupling and cohesion.

Or

- (b) Explain about micro level process.

20. (a) Explain briefly about the guidelines for developing test plans.

Or

- (b) Describe about impact of Object Orientation on testing.

Page 6

Code No. : 7059

