



M.C.A. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2019  
Third Semester  
MC 5305 – OBJECT ORIENTED ANALYSIS AND DESIGN  
(Regulations 2017)

Maximum : 100 Marks

PART - A

1. List the principles of modeling in UML.
2. Define responsibility with an example.
3. When to use patterns ?
4. Define refinement.
5. What is the use of aggregation ?
6. Write the common uses of class diagram.
7. What is the purpose of interaction diagram ?
8. Define class testing.
9. How user interface of the applications are tested ?
10. Draw use-case diagram for developing a Quiz System.

(5×13=65 Marks)

11. a) Explain the conceptual model of the UML in detail. Explain various common Mechanisms in UML. (8)
- (OR)
- b) Explain about the phases of unified process model. (5)

70796



12. a) Differentiate bridge and adapter. (5)  
b) Explain in detail about factory pattern with an example. (8)

(OR)

- a) Compare cohesion and coupling with suitable example.  
b) Draw the sequence diagram for an online railway reservation system.
13. a) Describe use case modeling for student information system.  
b) Write a short note on domain models. (8)

(OR)

- a) Explain in detail about conceptual classes and description classes.  
b) Differentiate aggregation and composition.
14. a) Describe the significance of class visibility and important features in designing classes. (16)

(OR)

- b) Describe the MVC pattern and draw MVC model for a game application.
15. a) Explain briefly about testing issues in OO testing and class testing in detail. (16)  
b) Discuss briefly about testing methods applicable at the class level.

(OR)

PART – C

(1×15=15 Marks)

16. a) Consider a payroll processing application for an organization construct the object oriented design and draw the following in UML.  
i) Class diagram  
ii) Sequence diagram  
iii) Activity diagram

(OR)

- b) For an inventory management system, construct the following diagrams.  
i) State diagram (4)  
ii) Use case diagram (4)  
iii) Component diagram (4)  
iv) Deployment diagram. (3)