

**PARUL UNIVERSITY**  
**FACULTY OF ENGINEERING & TECHNOLOGY**  
**B.Tech. Winter 2022- 23 Examination**

Semester: 3/4

Date: 18/10/2022

Subject Code: 203105207

Time: 02:00 pm to 04:30 pm

Subject Name: Object Oriented Concepts and UML

Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

**Q.1 Objective Type Questions - (Fill in the blanks, one word answer, MCQ-not more than five in case (15) Of MCQ) (All are compulsory) (Each of one mark)**

1. \_\_\_\_\_ is a default class  
a) Abstract    b) Association    c) Concrete    d) All of the above
2. Multiplicity is a numeric range for \_\_\_\_\_  
a) Object    b) Class    c) Attribute    d) Operation
3. Which one is not compulsory to declare in abstract class?  
a) Attributes    b) Name    c) Operations    d) Association
4. To indicate validation phase in implementation we have to add \_\_\_\_\_ in model  
a) Abstract class    b) Concrete class    c) Constraint    d) Metadata
5. If you will copy and paste source code of any page and try to run it, there will not be same output because of \_\_\_\_\_  
a) Inheritance  
b) Encapsulation  
c) Polymorphism  
d) Metadata
6. If you are in your class then your enrollment number is your \_\_\_\_\_
7. Where is the fork there is the \_\_\_\_\_
8. Condition in activity model is shown by \_\_\_\_\_ symbol
9. \_\_\_\_\_ Diagram is working with respect to time.
10. \_\_\_\_\_ Model has no backtracking method.
11. What is object in class?
12. Explain actor in use case diagram.
13. What is visibility?
14. What is association?
15. What is sequence in class model?

**Q.2 Answer the following questions. (Attempt any three) (15)**

- A) Explain all types of inheritance
- B) Briefly describe difference between generalization and specialization.
- C) Demonstrate state diagram for car driving process.
- D) Discuss about various types of events with suitable example.

**Q.3 A) Draw activity diagram for dispatching money from ATM (07)**

**B) Explain use case model for university. (08)**

**OR**

**B) Explain use case model for Banking system (08)**

**Q.4 A) Discuss abstract class with suitable example (07)**

**OR**

**A) Explain characteristics of OOPs with example (07)**

**B) List out and explain all steps of software development lifecycle (08)**