

Total No. of Questions : 12]

SEAT No. :

**P3429**

**[4959]-204**

[Total No. of Pages : 3

**B.E. (Computer Engineering)**  
**OBJECT ORIENTED MODELING AND DESIGN**  
**(2008 Course) (Semester - I)**

*Time : 3 Hours]*

*[Max. Marks : 100*

*Instructions to the candidates:*

- 1) Answer three questions from section I and three questions from section II.*
- 2) Answers to the two sections should be written in separate answer books.*
- 3) Neat diagrams must be drawn wherever necessary.*

**SECTION - I**

**Q1) a)** What is the need of modeling software system? What are OO concepts used in software modeling and how? **[8]**

b) What do you mean by OMG? Explain the CORBA architecture. **[8]**

OR

**Q2) a)** Draw and explain 4+1 view architecture of the system models all the view of the system system? **[8]**

b) Explain the behavioral things in UML2.0 **[8]**

**Q3) a)** How UML2.0 supports requirements modeling? **[8]**

b) Give the activity diagram for 'Book a Ticket' in Railway Reservation System using swim lanes. State you assumptions. **[8]**

OR

**Q4) a)** Draw detailed use case diagram for online Internet Banking System using all advanced notations for use case diagram. **[8]**

b) What are boundary classes? Identify and model in UML the boundary classes in a ATM system. **[8]**

**P.T.O.**

- Q5)** a) Explain the element of a class diagram with an example. [8]  
b) Explain the application of composite structure diagram. [6]  
c) What do you mean by an active class? [4]

OR

- Q6)** a) Draw the class diagram for online Airline traffic management system. [8]  
b) Explain the concept of Realization and Aggregation. [6]  
c) How to draw object diagrams? [4]

## **SECTION - II**

- Q7)** a) Explain the communication diagram with example. [6]  
b) How timing diagram can be used in real time systems? [6]  
c) Enlist and elaborate the significance of messages used in sequence diagram. [6]

OR

- Q8)** a) Explain the sequence diagram elements with a sequence diagram for "withdraw money" from ATM system. [8]  
b) Explain following [6]  
i) Composite State  
ii) Self transition  
iii) Sub State  
c) How interaction overview diagram is related to activity diagram? [4]

**Q9) a)** Explain the purpose of a component diagram with a diagram and example. **[8]**

b) How do you model the deployment view in UML? **[8]**

OR

**Q10)a)** What are types of interfaces of a component? How it is modeled in UML? **[8]**

b) Draw the deployment diagram for client server 3 tier for your college website. **[8]**

**Q11)a)** Explain the forward engineering and reverse engineering with example. **[8]**

b) Give the solution for structural design pattern. **[8]**

OR

**Q12)a)** How do you forward engineer a class diagram? **[8]**

b) Explain the facade design pattern with an example. **[8]**

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