

Total No of Questions: [12]

SEAT NO. :

[Total No. of Pages : 2]

**B.E. (Computer Engineering.)
Object Oriented Modeling and Design
(2008 Pattern)(Sem.-I)**

Time: 3Hours

Max. Marks : 100

Instructions to the candidates:

- 1) *Answers to the two sections should be written in separate answer books.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Assume Suitable data if necessary*

SECTION I

- Q1) a) What is the need of modeling software system? What are OO concepts used in software modeling and how are they used to model a system? [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 ? [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]
- Q5) a) Explain the element of a class diagram with an example [6]
b) Explain the application of composite structure diagram. [6]
c) What do you mean by an active class? [6]

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 example and neat diagram . [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 3 tier client server 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]