Total No. of Questions : 12]

SEAT No. :

P1992

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## B.E. (Computer Engineering)

## OBJECT ORIENTED MODELING AND DESIGN

## (2008 Pattern) (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 whenever 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? **[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 your 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. **[8]**

b) Explain the application of composite structure diagram. **[6]**

c) What do you mean by an active class. **[4]**

OR

***P.T.O.***

*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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