

Total No. of Questions : 4]

SEAT No. :

P8469

[Total No. of Pages : 2]

Oct-22/BE/Insem-47

B.E. (Computer Engineering)

**OBJECT ORIENTED MODELING & DESIGN**  
**(2019 Pattern) (Semester - VII) (410244D) (Elective - III)**

Time : 1 Hour]

[Max. Marks : 30]

Instructions to the candidates :

- 1) Answer Q1 or Q2, Q3 or Q4.
- 2) Neat diagrams must be drawn whenever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data, if necessary.

- Q1)** a) Explain element of a class diagram with examples. [6]  
 b) What do you mean by Association class? [4]  
 c) Explain different Relations in UML. [5]

OR

- Q2)** a) What are different type of analysis classes? Explain with an example. [6]  
 b) How you model class & object in UML? [4]  
 c) Draw a class diagram for ATM system. [5]

- Q3)** a) Explain following : [5]  
 i) Composite state  
 ii) Self transition orthogonal states with respect to state chart diagram.  
 b) Draw state diagram with composite states from ATM card reading & authentication system. [5]

P.T.O.

- c) Explain terms : [5]
- Aggregation
  - Composition

OR

- Q4)** a) Explain different components of a state diagram. [5]
- b) Explain how you model different events in state diagram. [5]
- c) Draw state chart diagram for Railway Reservation system. [5]

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**Study material provided by: Vishwajeet Londhe**

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Total No. of Questions : 4]

P5195

SEAT No. :

[Total No. of Pages : 1]

[6188]-147

**B.E. (Computer Engineering) (Insem)**  
**OBJECT ORIENTED MODELLING & DESIGN**  
**(2019 Pattern) (Semester - VII) (Elective - III) (410244D)**

*Time : 1 Hour*

*[Max. Marks : 30]*

*Instructions to the candidates:*

- 1) Answer Q.1 or Q.2, Q.3 or Q.4.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data if necessary.

- Q1)** a) Explain the types of relationship along with their notations. [5]  
b) Draw class diagram for ATM system. [5]  
c) Define object? Explain components of object diagram in brief? [5]
- OR
- Q2)** a) Difference between link and association with suitable example. [5]  
b) What is OO development? Explain the OO the mes ? [5]  
c) Explain the following terms with respect to object oriented methodology. [5]
- i) Abstraction  
ii) Encapsulation  
iii) Sharing
- Q3)** a) Draw state diagram with composite states from ATM card reading & authentication system. [5]  
b) Write a short note on : [5]
- i) Package
  - ii) Derived data
  - iii) Constraints
- c) Define event and explain in brief different types of events. [5]
- OR
- Q4)** a) Draw state chart diagram for Railway reservation system. [5]  
b) What do you mean by Association ends? Explain N-ary association in short. [5]  
c) What is state? Explain with example transitions and condition. [5]