

17630

11819

3 Hours / 100 Marks

Seat No.

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- Instructions :**
- (1) All Questions are *compulsory*.
 - (2) Illustrate your answers with neat sketches wherever necessary.
 - (3) Figures to the right indicate full marks.
 - (4) Assume suitable data, if necessary.
 - (5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE :

20

- (a) Explain object Oriented Themes.
- (b) Define the following :
 - (i) Object
 - (ii) Class
 - (iii) Values
 - (iv) Attributes
- (c) Explain object modelling technique by Rumbaugh.
- (d) What is propagation of operation ? Give example.
- (e) Explain Nested State diagrams.
- (f) Draw the sequence diagram for receiving book from library.
- (g) Draw the deployment diagram for online shopping.

2. Attempt any TWO :

16

- (a) What is UML ? Explain Software Development Life Cycle (SDLC) of UML.
- (b) Compare Aggregation and Association. Give example of each.
- (c) Explain include and extend relationships in usecase diagrams and draw the usecase diagram for ATM System.

- 3. Attempt any FOUR : 16**
- (a) Explain generalization with suitable example.
 - (b) Describe link and association concept.
 - (c) What are different relationships in UML ? Explain.
 - (d) Draw the usecase diagram for Railway reservation system.
 - (e) Draw the Activity diagram for withdrawing money from ATM.
 - (f) Explain the notations used for State diagrams.
- 4. Attempt any FOUR : 16**
- (a) What is multiple inheritance ? Explain with example.
 - (b) Explain Notations for sequence diagram.
 - (c) Draw the state diagram for a CD player.
 - (d) Define interface with suitable example and explain its importance.
 - (e) Draw the sequence diagram for placing purchase order.
 - (f) Explain the Architecture of UML.
- 5. Attempt any TWO : 16**
- (a) What is Sequence diagram ? Explain different types of messages for use on sequence diagrams with example.
 - (b) What are component and deployment diagrams ? Explain with example.
 - (c) Explain the following with respect to Activity diagrams :
 - (i) Joining and Forking
 - (ii) Decisions and Swimlanes
- 6. Attempt any FOUR : 16**
- (a) Explain the following :
 - (i) Metadata
 - (ii) Constraints
 - (b) State four principles of Modelling.
 - (c) Define :
 - (i) State
 - (ii) Activity
 - (iii) Transition
 - (iv) EventWith respect to state diagram.
 - (d) Draw the Symbols used in deployment diagrams and state the use of it.
 - (e) Define Multiplicity and Qualification with appropriate example.
 - (f) Draw the activity diagram for searching the result and printing it from MSBTE website.
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