

17630

11718

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) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following : 20

- (a) What is object orientation ? Explain the terms used in object orientation.
- (b) How to destroy and create message with examples.
- (c) What is the difference between aggregation and association ?
- (d) Explain the concept of interface with suitable example.
- (e) Explain swimlane in activity diagram with example.
- (f) Explain Rumbaugh's OMT in detail.
- (g) Describe the concept of concurrency.

2. Attempt any FOUR of the following : 16

- (a) Explain parallel and loop structured control in sequence diagram.
- (b) Describe Branching and Forking in activity diagram.
- (c) How to apply constraints in class diagram ?

- (d) Explain the three model of object orientation.
- (e) Describe Metadata with example.
- (f) Explain state, event, action and activity with respect to state chart diagram.

3. Attempt any FOUR of the following :

16

- (a) What is deployment diagram ? Explain the purpose of deployment diagram.
- (b) Explain four principles of modelling.
- (c) What is sequence diagram ? Explain the notation of sequence diagram.
- (d) Explain the following terms :
 - (i) Attribute
 - (ii) Link attribute
 - (iii) Ordering
 - (iv) Qualified association
- (e) Describe the importance of component diagram.
- (f) Explain Nested state diagram with example.

4. Attempt any TWO of the following :

16

- (a) Explain detail concept of generalisation and inheritance with example.
- (b) Draw and explain use case diagram for Online Airline Reservation.
- (c) Describe the concept and purpose of state chart diagram. Explain the various notations of state diagram.

5. Attempt any FOUR of the following : 16

- (a) Describe the basic notations of use case diagram.
- (b) Explain object orientation themes in detail.
- (c) Explain the notations of class diagram with example.
- (d) Draw activity diagram for Online Restaurant system to place order.
- (e) Explain notation of component diagram.
- (f) Explain the relationship <<include>>, <<extend>> in use case diagram with example.

6. Attempt any TWO of the following : 16

- (a) Draw and explain class diagram for Banking System.
 - (b) Draw and explain state chart diagram for ATM Management System.
 - (c) Draw sequence diagram for Student Online Registration System.
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