

# CBCS SCHEME

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15CS551

## Fifth Semester B.E. Degree Examination, June/July 2018 Object Oriented Modeling and Design

Time: 3 hrs.

Max. Marks: 80

**Note: Answer any FIVE full questions, choosing ONE full question from each module.**

### Module-1

- 1 a. Explain the three models of object orientation. (04 Marks)  
b. Describe the generalization and inheritance with an example. (06 Marks)  
c. Explain Object Orientation Themes. (06 Marks)

OR

- 2 a. Explain N-ary association with an example. (04 Marks)  
b. Explain kinds of multiple inheritances. (06 Marks)  
c. Explain Aggregation. (06 Marks)

### Module-2

- 3 a. What is UseCase and Actor? Explain UseCase diagram of the order-entry sub system for RMO; showing a system boundary. (04 Marks)  
b. With a neat sketch explain the activity diagram of the telephone order scenario. (06 Marks)  
c. Explain SSD of the simplified telephone order scenario for the create New Order UseCase. (06 Marks)

OR

- 4 a. Explain the concurrent paths for a printer in the ON state. (04 Marks)  
b. List the steps for developing state charts. (08 Marks)  
c. Explain the complete state chart (final state chart) for Order Item. (04 Marks)

### Module-3

- 5 a. Describe the software development stages. (10 Marks)  
b. Explain development life cycle of software. (06 Marks)

OR

- 6 a. Explain the steps used to construct a domain class model. (10 Marks)  
b. Explain domain state model. (06 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. No evaluation of marks will be done for questions written on Page X. 30 marks are allotted to this paper. It is mandatory to

**Module-4**

- 7 a. What is stereotype? Describe the standards stereotypes found in design models. (05 Marks)  
b. Write short notes on :  
i) Encapsulation and Information Hiding  
ii) Navigation Visibility  
iii) Cohesion and Separation of Responsibilities. (06 Marks)  
c. Explain RMO domain model class diagram. (05 Marks)

**OR**

- 8 a. With an example explain designing of classes. (06 Marks)  
b. Discuss the symbols used in communication diagrams. (04 Marks)  
c. Explain the RMO sub system packages. (06 Marks)

**Module-5**

- 9 a. Describe the elements of design pattern. (04 Marks)  
b. Explain how to select design pattern. (06 Marks)  
c. Describe how to use design pattern. (06 Marks)

**OR**

- 10 a. Explain the adaptor in structural pattern. (10 Marks)  
b. Write short notes on prototype pattern. (06 Marks)

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