USN | | | | | | | | | | |

15CS/IS54

Fifth Semester B.E. Semester End Examination, Dec/Jan 2017-18

OBJECT ORIENTED MODELING AND DESIGN

Time: 3 Hours Max. Marks: 100

Instructions: 1. *Unit I and Unit III are compulsory.*
2. *Answer any one question from remaining Units.*
3. *Draw UML diagrams neatly*

UNIT - I

1 a. Define the term model. Explain the 3 models in detail. List the advantages of modeling. 10 M
(Level [2], CO [1], PO [1])

b. Explain the following with an example for each. 10 M
a)Links and Association b)Aggregation c)Association Ends
(Level [2], CO [1], PO [1])

UNIT – II

2 a. Define the term Event. Explain signal, change and time event with an example for each. 10 M
(Level [2], CO [2], PO [1])

b. Make use of a neat UML state diagram to explain the working of a telephone line. 10 M
(Level [3],CO [2], PO [2])

OR

3 a. Explain Activity effects, Do activities and Entry and Exit activities with an example for each. 10 M
(Level [2], CO [2], PO [2])

b. Make use of UML diagrams for a Car to explain the concept of Aggregation Concurrency. 10 M
(Level [3], CO [2], PO [2])

UNIT - III

4 a. Explain the term Actors, Use Case and Use Case diagrams with examples. List the guidelines for Use Case models. 10 M
(Level [2], CO [3], PO [2])

b. Identify the different Use Case relationships with neat diagrams for each. 10 M
(Level [3], CO [3], PO [2])

UNIT - IV

5 a. Identify the steps performed in constructing a Domain State Model. 10 M
(Level [3], CO [4], PO [6])

b. Identify the steps performed in constructing an Application Class Model. 10 M
(Level [3], CO [4], PO [6])

OR

6 Explain the following steps required to construct a domain class model. 20 M
a) Find Classes
b) Finding Associations
c) Shifting Level of Abstraction
d) Grouping Classes into Packages
(Level [2], CO [4], PO [6])

UNIT -V

7 Explain the following steps related to Class Design. 20 M
a) Bridging the gap
b) Designing Algorithms
c) Recursing Downward
d)Organizing a Class Design
(Level [2], CO [5], PO [6])

OR

8 Explain the following steps related to Implementation modeling 20 M

a) Fine-Tuning Classes
b) Fine Tuning Generalizations
c) Realizing Associations
d) Testing

(Level [2], CO [5], PO [6])