R13

B.Tech III Year II Semester (R13) Regular & Supplementary Examinations May/June 2017
OBJECT ORIENTED ANALYSIS, DESIGN & MODELING
(Computer Science & Engineering)

Time: 3 hours   Max. Marks: 70

PART - A
(Compulsory Question)
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1   Answer the following: (10 X 02 = 20 Marks)
 (a)   Give any two differences between algorithmic and object oriented decomposition.
 (b)   List any four elements of object model.
 (c)   Differentiate between state and behavior of an object with examples.
 (d)   With a neat diagram, give an example for multilevel inheritance.
 (e)   Briefly explain the extensibility mechanisms in UML.
 (f)   Draw a neat dependency relationship's diagram for course schedule.
 (g)   Differentiate between class and object diagrams.
 (h)   Differentiate between forward and reverse engineering.
 (i)   Define signal. Give an example.
 (j)   List any two uses of state chart diagrams.

PART - B
(Answer all five units, 5 X 10 = 50 Marks)

UNIT - I

2   How does object model evolved? Explain.

OR

3 (a) List and explain five attributes of a complex system.
   (b) Explain briefly about any two elements of object model with examples.

UNIT - II

4   Write a brief note on the following:
 (a)   Visibility.
 (b)   Synchronization.

OR

5   Explain with examples the relationships among classes.

UNIT - III

6   Explain briefly the steps to model vocabulary and the distribution of responsibilities in a system with examples.

OR

7   Explain briefly the UML notations with examples for the following:
 (a)   Note.
 (b)   Stereotypes.
 (c)   Tagged values.
 (d)   Constraints
 (e)   Standard elements.

UNIT - IV

8   Draw a neat class diagram for student database system by identifying the proper classes, their attributes and behavior and the relationships among them.

OR

9   (a)   Explain the procedure to model the semantics of a class.

     (b)   Write aggregation/composition diagram for the following relationships among classes:
         (i) Parts of a car.   (ii) Players of a team.

UNIT - V

10   Draw collaboration and sequence diagrams for the following scenarios of a student database system respectively:

   (a)   Register a course.

   (b)   Viewing results of current semester.

OR

11   Define activity diagram. List out UML notations used in it. Write an activity diagram for a student database management system.

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