Code No: 126EQ **R13**

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech III Year II Semester Examinations, April - 2018
OBJECT ORIENTED ANALYSIS AND DESIGN
(Common to CSE, IT)

Time: 3 hours **Max. Marks: 75**

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A

(25 Marks)

1.a)	What is the importance of modeling?	[2]
b)	Explain why object oriented approach is preferable when compared to other approaches?	[3]
c)	What is visibility of an element owned by a package?	[2]
d)	What are the steps to model simple collaborations of class diagram?	[3]
e)	Distinguish between activity and action state in UML.	[2]
f)	Explain briefly about usecase flow of events.	[3]
g)	Discuss how to depict iterated and broadcast messages in interaction diagrams.	[2]
h)	What are the properties of a well structured component diagrams?	[3]
i)	Enumerate steps to model concrete instances in UML.	[2]
j)	What is node? How to organize nodes in UML?	[3]

PART - B

(50 Marks)

2.a) Write about structural things of UML vocabulary. Give UML notation.
b) What are principles of modelling? Explain. [5+5]

OR

3. Explain briefly about following terms:
a) Stereotypes
b) Tagged Values
c) Constraints [3+3+4]

4.a) What is a class diagram? What are the common properties and uses of class diagrams?
b) With reference to class diagrams, enumerate the steps to forward engineer. [5+5]

OR

5.a) Enumerate steps to model vocabulary of a system.
b) Enumerate steps to model distribution of responsibilities in a system. [5+5]

6.a) What is meant by usecase? Explain about use case description with an example.
b) State and explain the common modeling techniques of usecase diagrams. [5+5]

OR

7.a) Explain about forking and joining concepts in activity diagram with an example.
b) Draw swimlane flowchart for financial accounting template and customize it to show your processes and procedures. [5+5]

8.a) How will you model distribution of objects.
b) What is an event? What are different types of events? [5+5]

OR

9.a) Enumerate the steps in modeling timing constraints. Illustrate with a UML diagram.
b) Consider an object diagram that models the distribution of certain objects in a real time system. Draw the diagram and explain briefly. [5+5]

10.a) Draw an use case diagram for hospital information system aimed at collecting and storing complete information pertaining to the patients.
b) Draw sequence diagram for hospital information system. [5+5]

OR

11.a) Draw a diagram that show set of nodes and their relations for library management system.
b) Explain briefly about boundary, control and entity classes. Give suitable examples. [5+5]

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