R13

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech III Year II Semester Examinations, May - 2017
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)   List the principles of modeling in UML.   [2]
  b)   What are the four aims of modeling?   [3]
  c)   Write the steps for modeling distribution.   [2]
  d)   Define responsibility with an example.   [3]
  e)   Write the uses of interaction diagram.   [2]
  f)   What is activity diagram?   [3]
  g)   Give the graphical representation of messages, links and sequencing of interactions.
                                                                                                   [2]
  h)   Give an example Collaboration diagram and explain.   [3]
  i)   Define pattern with an example.   [2]
  j)   What is an use case diagram?   [3]

PART - B

(50 Marks)

2.a)   Explain about the common division mechanisms of UML in detail.
  b)   Discuss the Software development life cycle with a neat diagram.   [5+5]
                                              OR
3.a)   Illustrate the conceptual model of UML in detail.
  b)   What is UML? Elaborate the object oriented design with an example.   [5+5]

4.   Enumerate the steps to model the client-server systems.   [10]
                                              OR
5.a)   Draw and explain the class diagram for an ATM bank system.
  b)   Explain about links and associations in detail.   [5+5]

6.   Draw the complete use case diagram for the library system and explain the relationships and responsibilities of various actors.   [10]
                                              OR
7.   Draw the usecase diagram and the activity diagram for an online airline reservation system. Summarize the purpose of each usecase, actor, and its importance. Briefly explain various activity states and action states in the activity diagram.   [10]

8. Define an event and a signal. Explain briefly about the common modeling techniques of events and signals. [10]

OR

9. Explain the forward engineering tool and reverse engineering tool for a sample code with respect to the state chart diagram. [10]

10. What are the various object participating in the library information system? Explain the object diagram that is associated with various interactions with a neat diagram. [10]

OR

11. Explain "Issuing of a book" operation using collaboration diagram. [10]