

**R15**

Code No: 126VQ

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year II Semester Examinations, December - 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 object oriented modeling? [2]
- b) Write the importance of UML. [3]
- c) List the steps for modeling non software things. [2]
- d) Mention the steps for modeling of vocabulary of a system with examples. [3]
- e) Define Interaction and Activity diagram. [2]
- f) Explain about fork and join in activity diagram. [3]
- g) Write about events and signals in behavioral modeling. [2]
- h) Distinguish between component and deployment diagram. [3]
- i) What is a framework? Give an example. [2]
- j) Are UML diagrams necessary in software development? Justify your answer. [3]

**PART - B****(50 Marks)**

- 2.a) Explain about behavioral things of UML in detail.
- b) Define modeling. Why do we model? What we can achieve through modeling? [5+5]

**OR**

- 3.a) Briefly explain the principles of modeling in detail.
- b) How UML addresses four aims of modeling. [5+5]

4. Explain about the class diagrams with examples in detail. [10]

**OR**

- 5.a) Discuss different types of relationships in class and object diagrams with examples.
- b) Differentiate between classes and object diagrams of UML. [5+5]

- 6.a) What are the stereo types that can be applied to dependency relationships among use cases? Explain in detail the common uses and properties of component diagram.
- b) Draw and explain sequence diagram that specifies the flow of control involved in initially a simple two party phone call. [5+5]

**OR**

7. Prepare an activity diagram that elaborates the details of logging into an email system. Explain the steps with a neat diagram. [10]

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8. Define component. What are the differences between components and classes? How are component and interface related? [10]

**OR**

9. Enumerate the steps to forward engineer and to reverse engineer a deployment diagram. [10]

10. Draw and explain sequence diagram for the search facility of the objects in the library system, so that “Wild Card” characters can be used when searching for titles, authors, or borrowers. [10]

**OR**

11. Draw a class diagram showing architectural overview of the library system. [10]

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