

Code No: 126EQ

R13

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year II Semester Examinations, October/November - 2016

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) Discuss the importance of modeling. [2]
- b) Explain the structural things in UML. [3]
- c) Distinguish between interface and class. [2]
- d) Discuss various uses of object diagram. [3]
- e) Explain with an example how to depict an asynchronous message. [2]
- f) Distinguish between action state and activity state. [3]
- g) Distinguish signals and active classes. [2]
- h) How to model life time of an object? [3]
- i) What is meant by framework? [2]
- j) Discuss the significance of patterns. [3]

**PART - B**

(50 Marks)

2. State and explain the common mechanisms in the UML. [10]  
**OR**
3. Discuss about modeling a systems architecture. [10]
4. Discuss how classes can be used for modeling the non software things and modeling primitive types. [10]  
**OR**
5. Explain with an example about modeling structured relationships. [10]
6. Explain with an example how to model flow of control by time and flow of control by organization. [10]  
**OR**
7. How to model requirements of a system. Explain with an example. [10]
8. What is meant by state machine? Discuss about sequential substates and history states with an example. [10]  
**OR**
9. Explain about communication and synchronization with a suitable example. [10]
10. Discuss about artifact diagrams. [10]  
**OR**
11. Write the class diagram for the university library application. [10]