



Code No: 823AB

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****MCA III Semester Examinations, April/May - 2019****OBJECT ORIENTED ANALYSIS AND DESIGN USING UML****Time: 3hrs****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****5 × 5 Marks = 25**

- 1.a) What is the importance of modeling? [5]
- b) Enumerate the steps to model new building blocks. [5]
- c) Draw an activity diagram for school information system. [5]
- d) Differentiate between classes and components. [5]
- e) Briefly explain about sequence diagram of unified Library application. [5]

**PART - B****5 × 10 Marks = 50**

2. Explain in detail about building blocks in UML. [10]
- OR**
- 3.a) Explain about the principles of modeling. [5+5]
- b) Explain about the architecture of UML. [5+5]
- 4.a) Explain the common mechanisms UML. [5+5]
- b) Enumerate the steps to model complex views. [5+5]
- OR**
- 5.a) Draw an object diagram for a hospital management system. [5+5]
- b) Enumerate the steps to model webs of relationships. [5+5]
6. Explain the following. [5+5]
  - a) Object lifeline.
  - b) Synchronous and asynchronous messages.
- OR**
- 7.a) Explain use case diagram with an example. [5+5]
- b) Enumerate the steps to model the behavior of an element. [5+5]
8. What is an event? Explain different types of events and also explain their modeling in UML. [10]
- OR**
- 9.a) Discuss about history states. [5+5]
- b) Briefly explain about state-chart diagrams. [5+5]
- 10.a) Discuss about patterns and frameworks. [5+5]
- b) How to model design pattern? Explain. [5+5]
- OR**
11. Draw structural diagrams for library application. [10]

