

Code No: 813AN

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

MCA III Semester Examinations, August - 2017

OBJECT ORIENTED ANALYSIS AND DESIGN (USING UML)

Time: 3 Hours

Max. Marks: 60

**Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 20 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 8 marks and may have a, b, c as sub questions.

**PART - A****5 × 4 Marks = 20**

- 1.a) What is the importance of modeling? Explain. [4]
- b) What are the stereotypes used in dependency relationship? Explain. [4]
- c) Distinguish between sequence and collaboration diagrams. [4]
- d) Describe terms and concepts of collaborations. [4]
- e) Identify classes in the unified library application. [4]

**PART - B****5 × 8 Marks = 40**

- 2.a) Explain common divisions and extensibility mechanisms in the UML.
- b) What is UML? Where can the UML be used? Explain. [4+4]

**OR**

- 3.a) Draw a neat diagram of SDLC and explain.
- b) What kinds of relationships are used in the UML? Explain. [4+4]

- 4.a) Explain about modeling new semantics.
- b) Describe advance concepts of association relationship. [4+4]

**OR**

- 5.a) Discuss about modeling different levels of abstraction.
- b) Describe interfaces, types, roles and realization. [4+4]

- 6.a) Explain about modeling a flow of control.
- b) Draw a sequence diagram that specifies the flow of control involved in initiating a simple, two-party phone call. [4+4]

**OR**

- 7.a) Explain the following:  
i) Usecases and actors    ii) Scenarios
- b) Discuss about modeling the requirements of a system. [4+4]

8. Write and explain terms and concepts of events and signals. [8]

**OR**

- 9.a) Explain about modeling lifetime of an object.
- b) Describe modeling source code with example. [4+4]

10. Explain in detail about patterns and frameworks. [8]

**OR**

11. Draw usecase, activity and statechart diagrams for unified library application. [8]