Code No: 126EQ **R13**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**
**B. Tech III Year II Semester Examinations, May - 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) | What is an artifact? | [2] |
| b) | What are the adornments in the UML? | [3] |
| c) | What is navigation? | [2] |
| d) | Explain the levels of visibility. | [3] |
| e) | What is use case diagram? | [2] |
| f) | What are interaction diagrams? | [3] |
| g) | What is a component? | [2] |
| h) | What is a deployment diagram? | [3] |
| i) | What are the common uses of deployment diagrams? | [2] |
| j) | What are the three kinds of components? | [3] |

## PART - B

**(50 Marks)**

| | | |
|---|---|---|
| 2.a) | What are behavioral things? Explain. | |
| b) | What is UML? Where can the UML to be used? | [5+5] |
| | **OR** | |
| 3.a) | What are the principles of modeling? Explain. | |
| b) | Draw the architecture of a software-intensive system and explain. | [5+5] |
| 4.a) | What are the various kinds of Classifiers? Explain. | |
| b) | How to model the seams in a system? | [5+5] |
| | **OR** | |
| 5.a) | Explain about generalization with an example. | |
| b) | Describe interfaces, types and roles with examples. | [5+5] |
| 6.a) | Explain about use cases and actors and use cases and flow of events. | |
| b) | How to model a flow of control? | [5+5] |
| | **OR** | |
| 7.a) | Explain sequence diagram with suitable example. | |
| b) | How to model the requirements of a system? | [5+5] |

8.a) Explain the following:
i) History states
ii) Time and space

b) How to model an API? [5+5]

**OR**

9.a) How to model an embedded system?

b) Differentiate the following:
i) Components and classes
ii) Nodes and components. [4+6]

10. Explain the following:
a) Patterns and architecture
b) Modeling an executable release. [5+5]

**OR**

11. Draw the following diagrams for the unified library application:
a) Class diagrams
b) Interaction diagrams. [5+5]

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