

**III B. Tech I Semester Supplementary Examinations, May - 2019**  
**OBJECT ORIENTED ANALYSIS & DESIGN USING UML**  
 (Computer Science and Engineering)

Time: 3 hours

Max. Marks: 70

- Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)  
 2. Answer **ALL** the question in **Part-A**  
 3. Answer any **FOUR** Questions from **Part-B**

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**PART -A**

1. a) What is the difference between UML and OOAD? [2M]
- b) Explain with an example how to depict an asynchronous message. [2M]
- c) Explain why object oriented approach is preferable when compared to other approaches? [2M]
- d) Define Association and Aggregation. [3M]
- e) Define package and draw the UML notation for Package. [3M]
- f) Define Events, States and Transitions. [2M]

**PART -B**

2. a) Consider the building of a house. Explain the concept of Modularity and how modularity helps better work allocation and better performance. [7M]
- b) What is the importance of modeling in object oriented and explain modeling principles. [7M]
3. a) What is a nature of Class and Object? How to identify Classes and Objects with suitable Examples. [7M]
- b) Justify the term "**Importance of Proper Classification**" with a suitable example. [7M]
4. a) Define UML. How it is used? What actually it deals about and its contents? [7M]
- b) Draw a Class diagram for Online Railway Reservation System with analysis. [7M]
5. a) Explain about forking and joining concepts in activity diagram with an example. [7M]
- b) Consider modeling a student information system. Consider the use case "student registers for a course". Draw a sequence diagram and explain briefly. [7M]
6. a) Define the following Terms. [6M]
  - i) Events and Signals
  - ii) Process and Thread
  - iii) Time and Space
- b) Prepare an activity diagram that elaborates the details of logging into an email system. Explain the steps with a neat diagram. [8M]
7. a) Define Component. What are the differences between components and classes? How are component and interface related? [7M]
- b) Draw a diagram that shows set of nodes and their relations for library management system. [7M]

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