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**INSTITUTE OF AERONAUTICAL ENGINEERING**  
(Autonomous)

Four Year B.Tech V Semester End Examinations (Regular) - November, 2018

**Regulation: IARE – R16**

**OBJECT ORIENTED ANALYSIS AND DESIGN**

**Time: 3 Hours**

**(IT)**

**Max Marks: 70**

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**Answer ONE Question from each Unit**

**All Questions Carry Equal Marks**

**All parts of the question must be answered in one place only**

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**UNIT – I**

1. (a) What are the various phases and workflows of a unified process for software development? [7M]  
(b) Explain in detail about the conceptual model of Unified Modeling Language. [7M]
2. (a) What are the various elements in UML that may have instances. How do you denote object state in UML. [7M]  
(b) Define UML? Discuss in detail about importance of modeling. [7M]

**UNIT – II**

3. (a) Explain in detail the Use Cases. Draw use case diagram for library management system. [7M]  
(b) Define Advanced classes. Explain terms, concepts and common modeling techniques object diagram with suitable examples. [7M]
4. (a) Discuss in detail about the Activity diagram with a suitable example. [7M]  
(b) Explain with an example, how use case modeling is used to describe functional requirements. Identify the actors, scenario and use cases for example. [7M]

**UNIT – III**

5. (a) What are State machines? Draw the State chart diagram for retail store management system. [7M]  
(b) Discuss in detail about Process and Threads. Explain its common modeling techniques with necessary examples. [7M]
6. (a) List out the Events and Signals? Explain its terms, concepts and common modeling techniques with suitable examples. [7M]  
(b) What do you mean by deployment diagram? Draw the deployment diagram for Tour management system. [7M]

#### UNIT – IV

7. (a) What is GRASP? Explain the following GRASP patterns: Creator, Information Expert. [7M]  
(b) Compare and contrast low coupling and high cohesion with suitable examples. [7M]
8. (a) Write short note on adapter, singleton, factory and observer patterns. [7M]  
(b) Discuss in detail about GRASP method for designing objects with responsibilities. [7M]

#### UNIT – V

9. (a) What is Domain model? Differentiate between a domain models with business model. [7M]  
(b) Draw the Sequence diagram that specifies the flow of control for telephone system. [7M]
10. (a) Explain the logical architecture and UML package diagram. [7M]  
(b) Explain Domain model refinement with suitable diagram. [7M]

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