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INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Four Year B.Tech V Semester End Examinations (Supplementary) - January, 2019

Regulation: IARE - R16

OBJECT ORIENTED ANALYSIS AND DESIGN

Time: 3 Hours (IT) Max Marks: 70

Answer ONE Question from each Unit All Questions Carry Equal Marks All parts of the question must be answered in one place only

UNIT - I

(a) Define UML? Explain in detail about principles of modelling. [7M]
 (b) Discuss about classes, relationships and common mechanisms in UML. [7M]

2. (a) Explain in detail the Software Development Life Cycle. [7M]

(b) What is the need of architecture? Explain Unified Modeling Architecture. [7M]

UNIT - II

3. (a) What is Use case? Explain its terms and common modeling techniques with necessary examples.

[7M]

(b) Define Advanced classes. Draw the class diagram for Library Management System. [7M]

4. (a) Define Active States and Action States. Explain about common modeling techniques of Activity diagram. [7M]

(b) Discuss in detail about common modeling techniques of class and object diagrams. [7M]

UNIT - III

5. (a) Explain in detail about State Machines? Draw the State chart diagram of railway reservation system. [7M]

(b) What is State chart diagram? Explain State chart diagram with an example. [7M]

6. (a) Discuss the common modeling techniques are used in component diagrams with suitable examples.

[7M]

(b) Define Deployment diagrams. Explain its common modeling techniques with neat sketch. [7M]

$\mathbf{UNIT}-\mathbf{IV}$

- 7. (a) Explain the design principles in object modeling. Discuss in detail the GRASP method for designing objects with examples. [7M]
 - (b) Discuss in detail about structural and adaptor design patterns with necessary examples. [7M]
- 8. (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]

$\mathbf{UNIT} - \mathbf{V}$

- 9. (a) Illustrate the concept of Domain model with necessary examples. [7M]
 - (b) Briefly explain about UML system sequence diagram. [7M]
- 10. (a) Explain with the example, how interaction diagram are used to model the dynamic aspects of the system. [7M]
 - (b) Draw the Sequence diagram of customer interaction with bank ATM system. [7M]

