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INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

B.Tech VI Semester End Examinations (Regular) - May, 2019

Regulation: IARE – R16

OBJECT ORIENTED ANALYSIS AND DESIGN PATTERNS

Time: 3 Hours

(CSE)

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 architecture? Explain about software architecture in Unified Modeling Language(UML)? [7M]
(b) Define a model? Enumerate the steps to model the vocabulary of a system. [7M]
- (a) Define UML? State and explain the common mechanisms in the UML. [7M]
(b) Define abstraction? Enumerate the steps to model different levels of abstraction. [7M]

UNIT – II

- (a) What is use case diagram? Draw the use case diagram for “Credit Card Validation System”. [7M]
(b) Write short notes on class diagram? Draw the class diagram for hospital management system. [7M]
- (a) Define activity? Explain about common modelling techniques for activity diagram. [7M]
(b) Explain in detail about different types of relations, interfaces, types, roles and packages. [7M]

UNIT – III

- (a) Differentiate between component and node. Draw the component diagram for ATM application. [7M]
(b) Explain the following with examples. i) History States ii) Time and Space [7M]
- (a) What is an event? What are different types of events? [7M]
(b) Define exception. Enumerate the steps to modeling the exceptions? [7M]

UNIT – IV

- (a) Differentiate low coupling and high cohesion with suitable examples. [7M]
(b) Explain about GRASP? Explain the design patterns and the principles used in it. [7M]
- (a) Write short note on adapter, singleton, factory and observer patterns. [7M]

(b) Discuss in detail about creator and information expert with suitable example.

[7M]

UNIT – V

9. (a) Discuss in detail about “Relating Use Cases” with suitable examples.

[7M]

(b) Describe the inception in modeling and explain different steps involved in inception.

[7M]

10. (a) Describe logical architecture and UML package diagram.

[7M]

(b) Define the use of extend and generalization with suitable examples

[7M]

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