

H.T.No: 

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Course Code: 191CS6T12

## ADITYA ENGINEERING COLLEGE (A)

### OBJECT ORIENTED ANALYSIS AND DESIGN (Computer Science and Engineering)

**Time: 3 hours**

**Max. Marks: 60**

**Answer ONE question from each unit**

**All Questions Carry Equal Marks**

**All parts of the questions must be answered at one place only**

#### UNIT – I

- |   |   |   |    |      |      |
|---|---|---|----|------|------|
| 1 | a | Explain the structure of Complex Systems and it's attributes. | K2 | CO 1 | [6M] |
|   | b | Describe the various elements of the Object model in detail.  | K2 | CO 1 | [6M] |

**OR**

- |   |   |  |    |      |      |
|---|---|--|----|------|------|
| 2 | a | Discuss clearly about different Building Blocks of UML     | K2 | CO 1 | [8M] |
|   | b | Draw and explain the class diagram for an ATM bank system. | K2 | CO 2 | [4M] |

#### UNIT – II

- |   |   |   |    |      |      |
|---|---|---|----|------|------|
| 3 | a | What is a nature of Class and Object? Explain how to identify Classes and Objects with suitable Examples. | K2 | CO 2 | [6M] |
|   | b | Justify the term “Importance of Proper Classification” with a suitable Example.                           | K3 | CO 2 | [6M] |

**OR**

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|---|---|---|----|------|------|
| 4 | a | Discuss the types of relationships among the classes.             | K2 | CO 2 | [6M] |
|   | b | Discuss about identification of key mechanisms in classification. | K2 | CO 2 | [6M] |

#### UNIT – III

- |   |   |   |    |      |      |
|---|---|---|----|------|------|
| 5 | a | Define use case. Explain about use case description with an example.    | K2 | CO 3 | [6M] |
|   | b | Define activity diagram. Draw activity diagram for making a phone call. | K2 | CO 3 | [6M] |

**OR**

- |   |   |  |    |      |      |
|---|---|--|----|------|------|
| 6 | a | Draw the use case diagram for library management system. | K2 | CO 3 | [6M] |
|   | b | Distinguish between sequence and collaboration diagrams. | K2 | CO 3 | [6M] |

#### UNIT – IV

- |   |   |   |    |      |      |
|---|---|---|----|------|------|
| 7 | a | Explain the following Terms.<br>i) Events and Signals<br>ii) Process and Thread | K2 | CO 4 | [6M] |
|---|---|---|----|------|------|

b Describe components of State Chart diagram with example. K2 CO 4 [6M]

**OR**

8 a Define event. Discuss the different types of events. K2 CO 4 [6M]

b Define State Diagram. Draw and explain Sample State diagram for Washing machine. K2 CO 4 [6M]

**UNIT – V**

9 a Illustrate the standard stereotypes that apply to components. K2 CO 5 [6M]

b Explain about Deployment diagram with an example. K2 CO 5 [6M]

**OR**

10 a Define component, port, and connectors. Discuss how components are related with interfaces. K2 CO 5 [6M]

b Draw the component diagrams for  
i) Online quiz system ii) Library management system K2 CO 5 [6M]

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