

Code No: R1941052

R19

Set No. 1

IV B.Tech I Semester Advance Supplementary Examinations, March – 2023

UML & DESIGN PATTERNS
(Computer Science and Engineering)

Time: 3 hours

Max. Marks: 75

*Answer any FIVE Questions
ONE Question from Each unit
All Questions Carry Equal Marks*

UNIT I

- 1 a) What is object orientation? Elaborate on the major themes that are well supported in object oriented technology. [7]
b) Use Illustrations and explain the following with UML Convention. [8]
i) Class ii) Values and Attributes iii) Operations and Methods
(OR)
- 2 a) What is generalization? Briefly discuss the generalization for equipment's with neat diagram. [7]
b) Briefly explain three models used in used in OO modeling and design. [8]

UNIT II

- 3 a) What is state? Explain the various characterizations of a state. [7]
b) Write a note on state machines. [8]
(OR)
- 4 a) Explain all the necessary steps for developing Order item state chart. [7]
b) Draw and explain the use case diagram of order entry subsystem for RMD and all use cases involving the customer actor. [8]

UNIT III

- 5 a) Explain and model the behavior of an ATM machine with the help of a state chart diagram. [7]
b) Explain about Design Patterns in Smalltalk MVC. [8]
(OR)
- 6 a) Explain how to select and how to use a design pattern. [7]
b) Draw the component diagram for Aadhar management system. [8]

UNIT IV

- 7 Explain the applicability, benefits and liabilities of abstract factory pattern. [15]
(OR)
- 8 a) Define singleton. Draw the structure and applicability. [7]
b) Define prototype. Explain applicability of prototype. [8]

UNIT V

- 9 a) Explain chain of responsibility. What are the benefits and liabilities. [7]
b) Describe memento. Discuss about applicants and draw the structure. [8]
(OR)
- 10 Define Mediator. Draw the structure, Discuss about participants, benefits and drawbacks. [15]

