



INSTITUTE OF AERONAUTICAL ENGINEERING (Autonomous)

B.Tech V Semester End Examinations (Regular), February – 2021

Regulation: IARE–R18

OBJECT ORIENTED ANALYSIS AND DESIGN

Time: 3 Hours

(CSE | IT)

Max Marks: 70

Answer any Four Questions from Part A

Answer any Five Questions from Part B

PART – A

1. Elucidate in detail about the common mechanisms used in UML. [5M]
2. Illustrate in detail about the advanced classes in UML with neat diagram. [5M]
3. Discuss about the three perspectives to apply UML in detail. [5M]
4. Describe UML state machine diagram and modeling. [5M]
5. Exemplify in detail about the purpose and its uses of a component diagram. [5M]
6. Describe about the life cycle of software development in the case of a unified model. [5M]
7. Elucidate how will you model a flow of control by time ordering. [5M]
8. Develop a state chart diagram to show the process of counseling for a college. [5M]

PART – B

9. Elaborate in detail about the different views that have to be considered before the buildup of an object-oriented software system? [10M]
10. Illustrate the relationships that are possible among the classes in the UML representation with your own example. [10M]
11. Demonstrate in detail about the model webs of relationships with neat examples and diagram. [10M]
12. Consider a bank has many branches. In each zone, one branch is designated as the zonal head office that supervises the other branches in that zone. Each branch can have multiple accounts and loans. An account may be either a savings account or a current account. A customer may open both a savings account and a current account. However, a customer must not have more than one savings account or current account. A customer may also procure loans from the bank. Construct a class diagram for the above given scenario. [10M]
13. Develop a use case diagram to show the process of hostel management system [10M]
14. By considering the library management system, perform the object-oriented system development and give the use case model for the same (use include, extend and generalization). [10M]
15. Explain and give state chart, component and deployment diagrams. [10M]
16. What is time and space? Discuss in detail about time and space with suitable examples. [10M]
17. Classify the difference between component and deployment diagram with neat example. [10M]
18. Develop a deployment diagram to show how an ATM machine web server are located on different machines and the communication protocol they use. [10M]