

HALL TICKET NUMBER

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PACE INSTITUTE OF TECHNOLOGY & SCIENCES::ONGOLE
(AUTONOMOUS)

IV B.TECH I SEMESTER END REGULAR EXAMINATIONS, NOV-2022
OBJECT ORIENTED ANALYSIS AND DESIGN WITH UML
(CSE Branch)

Time: 3 hours

Max. Marks: 60

Note: Question Paper consists of Two parts (Part-A and Part-B)

PART-A

Answer **all** the questions in Part-A (5X2=10M)

- 1 a) Write the properties of simple and complex software systems. [2M]
- b) Write the relationship among classes. [2M]
- c) Mention three kinds of building blocks in UML. [2M]
- d) Define package and draw the UML notation for Package. [2M]
- e) Define Events, States and Transitions. [2M]

PART-B

Answer **One Question from each UNIT (5X10=50M)**

UNIT-I

2. a) Why Software is Inherently Complex? List and Explain how inherent complexity derives from different elements? [5M]
 - b) Describe the various elements of the Object model in detail. [5M]
- OR
3. a) Define the structure of Complex Systems and explain various attributes of complex systems. [5M]
 - b) Discuss about Evaluation and Benefits of the Object Model. [5M]

UNIT-II

4. a) What is a nature of Class and Object? How to identify Classes and Objects with suitable Examples. [5M]
 - b) Discuss the role of classes and objects in analysis and design. [5M]
- OR
5. a) Differences between Class and Object with suitable examples. What are the Objectives of Design? [5M]
 - b) Describe the relationship among classes. [5M]

UNIT-III

6. a) What is the importance of modeling in object oriented and explain modeling principles. [5M]
 - b) Explain the phases of Software development life cycle giving its salient features. [5M]
- OR
7. a) Discuss the primary goals in the design of UML? [5M]
 - b) Illustrate the conceptual model of UML in detail. [5M]

UNIT-IV

8. a) Draw a Class diagram for Online Railway Reservation System with analysis. [5M]

b) Explain Classes and relationships with examples. [5M]

OR

9. a) Draw and explain the object diagram for bank management system. [5M]

b) Discuss about advanced relationships in structural modeling. [5M]

UNIT-V

10. a) Explain about forking and joining concepts in activity diagram with an example. [5M]

b) Draw the state chart diagram for university management system. [5M]

OR

11. a) Define Component. What are the differences between components and classes? [5M]
How are component and interface related?

b) Discuss clearly about different representations used in interaction diagrams. [5M]
