



UNIVERSITY DEPARTMENTS, ANNA UNIVERSITY:: CHENNAI - 25
B.E /B.Tech.(Full Time) DEGREE ARREARS EXAMINATIONS APRIL/MAY 2012
(Common to COMPUTER SCIENCE & ENGG. And INFORMATION TECHNOLOGY BRANCHES)
FIFTH SEMESTER (REGULATIONS 2009)

4

CS 9301: Object Oriented Analysis and Design

Time: 3 Hrs

Max.Mark: 100

Answer ALL Questions

PART - A (10 x 2= 20 marks)

1. Why do you need UML?
2. Give two merits and demerits in using object orientation.
3. How should the classes in domain model be organized within packages?
4. What are the secondary requirements ?
5. Write down the various kinds of usecases.
6. Write down the steps in realization of 'make card payment ' in POS.
7. Distinguish the aggregation and composition.
8. Draw state diagram for the object 'train ticket.
9. What are the kinds of visibility supported in object design?
10. Why do you need pair programming?

PART - B (5 x 16 = 80 marks)

11. Explain the steps in class design. Draw complete design class diagram (DCD) for POS. (6+10)
12. a) i. Explain the steps in inception phase and its deliverables. (10)
ii. Draw interaction diagram for the use case 'process sale' in POS. (6)
(OR)
b) i. Draw System sequence diagrams(SSD) for POS subsystem. (8)
ii. Explain how to specify operations contract for the use case 'process sale' in POS (8)
13. a) i. For a Point of Sale (POS) subsystem, draw UML package diagram. (8)
ii. Explain designing for visibility. (8)
(OR)
b) Design classes an online railway ticket reservation system. (16)
14. a) i. Explain need for refactoring with examples. (8)
ii. Illustrate how to convert a class diagram to code. (8)
(OR)
b) i. Explain test driven development with examples. (8)
ii. Write a testcase class for testing the functionality: total sale with discount offers (8)
15. a) i. Explain how façade and adapter patterns are used in POS. (8)
ii. Explain logical architecture refinement procedure. (8)
(OR)
b) i. Describe strategy design patterns for handling sales tax computation problem.. (8)
ii. Explain logical architectural refinement procedure with a typical illustration . (8)