Anna University

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2011.

Sixth Semester

Computer Science and Engineering

CS 2353 — OBJECT ORIENTED ANALYSIS AND DESIGN

(Common to Information Technology)

(Regulation 2008)

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. List out any four reasons for the complexity of software.
2. What do you mean by use cases and actors?
3. Give the hint to identify the attributes of a class.
4. Define swim lane.
5. What do you mean by sequence diagram? Mention its use.
6. What do you mean by sequence number in UML? Where and for what it is used?
7. Distinguish between coupling and cohesion.
8. Write a note on Patterns.
9. Define component with an example.
10. How will you reflect the version control information in UML diagram?

PART B — (5 × 16 = 80 marks)

11. (a) What do you mean by Unified Process in OOAD? Explain the phases with suitable diagrams. (16)

Or

(b) 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). (16)

12. (a) Explain the relationships that are possible among the classes in the UML representation with your own example. (16)

Or

(b) Explain the following with an example :
(i) Conceptual class diagram
(ii) Activity Diagram. (8 + 8)

13. (a) With a suitable example explain how to design a class. Give all possible representation in a class (name, attribute, visibility, methods, responsibilities). (16)

Or

(b) What do you mean by interaction diagrams? Explain them with a suitable example. (16)

14. (a) What is GRASP? Explain the design patterns and the principles used in it. (16)

Or

(b) What is design pattern? Explain the GoF design patterns. (16)

15. (a) Explain the state chart diagram with a suitable example. Also define its components and use. (16)

Or

(b) Consider the Hospital Management System applicationwith the following requirements
(i) System should handle the in-patient, out-patient information through receptionist.
(ii) Doctors are allowed to view the patient history and give their prescription.
(iii) There should be a information system to provide the required information.
Give the state chart, component and deployment diagrams.(6 + 6 + 4)