

MAY 2012

**P/ID 16111/KAL/
PITL**

Time : Three hours

Maximum : 75 marks

PART A — (5 × 5 = 25 marks)

Answer ALL questions.

1. (a) What is a pattern and a framework? Describe the difference between patterns and frameworks.

Or

- (b) Write about the Jacobson methodologies. What is the strength of the Jacobson methodology?

2. (a) Name and describe the relationships in a use case diagram.

Or

- (b) Describe the guidelines for effective documentation.

3. (a) What is meant by reusability? How does encapsulation, modularisation improve the reusability?

Or

- (b) How does relational data map to and from application objects? Explain it.

4. (a) Describe reverse and forward engineering.

Or

- (b) Write about the guidelines for using fonts and colors.

5. (a) Explain error-based and scenario-based testing each with suitable example.

Or

- (b) What is a user satisfaction test? Why do we need to measure satisfaction?

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

6. (a) Discuss on the benefits and limitations of object oriented system development.
(b) What are the minor elements of object model? Explain them.
7. A software system is to be developed to automate a library catalogue. This system will contain information about all the books in a library and will be usable by library staff and by book borrowers and readers. The system should support catalogue browsing, querying, and should provide facilities allowing users to send messages to library staff reserving a book that is on loan. Identify the classes and objects and develop UML class diagrams, object diagrams, sequence diagrams and activity diagram.

8. What is a model? What are the features of a modeling language?
 9. What is the purpose of analysis? Describe the basic activities in object oriented analysis.
 10. Explain object oriented design process.
 11. Summarize the features of object oriented database systems.
 12. (a) Why is user interface one of the most important components of any software?
(b) Describe the impact of object orientation on testing.
 13. Explain why maximizing cohesion and minimizing coupling leads to more maintainable systems? What are the attributes of a design might influence system maintainability?
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