



**QUESTION BANK**

**Sub.Code : CS1310 Semester : VII**

**Sub.Title : Object Oriented Analysis and Design**

**UNIT-I  
INTRODUCTION  
PART-A (2 marks)**

1. Write about the traditional development methodologies?
2. Define object.
3. Give a brief note on object behavior
4. What do you mean by information hiding?
5. Define class hierarchy.
6. Write briefly about inheritance and explain the types of inheritance.
7. What do you mean by polymorphism?
8. Explain object relationship and associations.
9. What do you mean by consumer-producer association?
10. Write about static and dynamic binding?
11. Define object persistence
12. Define meta-classes.
13. What do you mean by software development process?
14. Explain briefly the waterfall approach.
15. Define collaboration.
16. Write the 80-20 rule.
17. Define Prototype. Give the types of prototype.
18. Write a brief note on RAD.
19. Write about CBD?
20. Why do we go for object oriented systems development?
21. What is horizontal prototype?
22. Explain the domain prototype?
23. Write about the Vertical prototype?
24. Explain Analysis prototype?
25. What is waterfall SDLC?

**PART-B**

1. Describe about an overview of Object Oriented Systems Development (16)
2. Describe about an Object Basics. (16)
3. Describe the Object oriented Systems Development Life Cycle? (16)

**UNIT-II**

**OBJECT ORIENTED METHODOLOGIES  
PART-A (2 marks)**

1. Write about the four phases in OMT?
2. What do you mean by object diagram?
3. What are the primary symbols used in Data Flow Diagrams?
4. What are the diagrams used in Booch methodology?
5. Give the steps involved in Macro development process in Booch methodology.
6. Give the steps involved in Micro development process in Booch methodology.
7. Write briefly about Use Cases.
8. Write short note on Objectory.
9. Define patterns.
10. Define patterns template. Give some examples for components in pattern.
12. Define anti-patterns.
13. Define pattern mining. Give the steps involved in capturing pattern.
14. Define frame work. Give the differences between design patterns and frameworks.
15. Why do we go for unified approach?
16. Write short note on UA proposed Repository.
17. Define model. Explain about the types of model.
18. What are the advantages of Modeling?
19. Define UML. Mention the primary goals in the design of the UML.
20. Give the nine UML graphical diagrams.
21. What is a Package?
22. Define method and Process.
23. Describe the difference between method and process.
24. What is an Object Model?
25. What are the main Advantages of DFD?

### **PART-B**

1. a. Describe Rum Baugh's Object Modeling Technique? (12)
- b. Explain about Object Oriented Modeling (04)
2. Give detailed notes about the Booch Methodology? (16)
3. a. Give a detailed account of Jacobson methodology? (12)
- b. Explain in detail about the Component Diagram (04)
4. Describe patterns and the various pattern templates and Frameworks? (16)
5. Explain in detail about the Unified approach? (16)
6. Describe the UML Class diagram? (16)
7. Draw a State Diagram, Activity Diagram and Package Diagram for Via Net Bank ATM System. (16)

### **UNIT-III**

#### **OBJECT ORIENTED ANALYSIS**

#### **PART-A (2marks)**

1. What is the purpose of analysis? Why do we need analysis?
2. Why analysis is a difficult activity?
3. What do you mean by business object analysis?
4. Write a short note on use-case model?
5. Define use-case.
6. When 'extends' association is used?
7. Define 'uses' association.
8. What is meant by railroad paradox? What do you infer from railroad paradox?

9. Give the two-three rules?
10. What is the 80-20 rule?
11. Why is documentation an important part of analysis?
12. List the approaches for identifying classes?
13. What do you mean by relevant, fuzzy and irrelevant classes?
14. How would you select candidate classes for the list of relevant and fuzzy classes?
15. What is the common class patterns strategy? Give the list of patterns used.
16. What is CRC?
17. What are the three steps in CRC process?
18. Give the guidelines for naming a class.
19. What is an association?
20. What is generalization hierarchy? Give the advantage.
21. What are some common associations?
22. How to eliminate unnecessary associations? How would you know it?
23. What do you mean by aggregation? What are the major properties of a-part-of relation?
24. What guidelines would you see to identify a-part-of structures?

### **PART-B**

1. Demonstrate the guidelines for finding use cases and developing effective documentation? (16)
2. Give detailed notes about the Noun phrase approach? (16)
3. a. Describe the CRC approach? (12)  
b. Write the rules for Naming the Classes (04)
4. Give a detailed note about Associations? (16)
5. a. Explain in Detail about the identifying relationships? (06)  
b. Give a detailed note on Super-sub class relationship and a-part-of relationship?(10)

### **UNIT-IV**

#### **OBJECT ORIENTED DESIGN PART-A (2marks)**

1. What is the need for axiomatic approach?
2. What are the main activities in design process?
3. Define axiom? What are the two design axioms applied to object-oriented design?
4. Define corollary? Give the corollaries derived from design axioms.
5. What do you mean by coupling?
6. What do you mean by degree of coupling?
7. What are the two types of coupling?
8. What do you mean by cohesion? Give the types of cohesion.
9. Differentiate coupling and cohesion?
10. What do you mean by design patterns?
11. Define OCL?
12. What do you mean by expressions? Give the syntax for some common expressions.
13. What are private, public and protected protocols?
14. What is encapsulation leakage?

15. What are the three basic types of attributes?
16. How do you present UML attribute?
17. What are the different types of methods provided by a class?
18. What are some characteristics of a bad design?
19. How do you present UML operation?
20. Define Package
21. What do you mean by persistence? Give some persistent data.
22. Define transient data? Give some transient data?
23. What are the essential elements in providing a persistent store?
24. Define schema or meta-data?
25. What is meant by database model? Give the different database models.

### **PART-B**

1. Describe in detail about Object oriented database management systems. (16)
2. State the differences between OODBMS and traditional database. (16)
3. Explain the steps involved in designing the access layer classes (16)
4. What are the different models involved in designing access layer. (16)
5. Describe in detail about design axioms and corollaries (16)

### **UNIT-V**

#### **SOFTWARE QUALITY AND USABILITY PART-A (2marks)**

1. What is the purpose of debugging?
2. What are the types of errors that you could find in your program?
3. Discuss Error-based testing?
4. Discuss Scenario-based testing/usage-based testing?
5. Name some testing strategies?
6. What is the Impact of Object orientation on Testing?
7. Discuss Black-Box testing?
8. Discuss White- Box testing?
9. What do you mean by Top- down Testing?
10. Discuss about the Statement testing coverage and Branch testing coverage?
11. What is Path testing?
12. What is Bottom - Up Testing?
13. What is the objective of testing?
14. What is the necessary of a test plan?
15. List the steps needed for a test plan?
16. Define regression testing?
17. Define Beta testing and Alpha testing?
18. What is the purpose of configuration control system?
19. When is testing said to be successful?
20. Define Usability?
21. What are the issues in software quality?
22. What is Usability testing?
23. What are the guidelines for developing usability testing?
24. Explain user satisfaction testing?

25. Explain COTS and USTS?
26. Write about the user satisfaction cycle?
27. What is Quality?
28. Why do we need usability Testing?
29. What is the objective of usability testing?
30. Define Test plan and test case.

#### **PART-B**

1. Describe quality assurance test and testing strategies (16)
2. Describe test cases and the impacts of object orientation on testing (16)
3. Illustrate test plan and continuous testing (16)
4. (a) Describe Usability Testing (12)  
(b) Describe about Quality Assurance (04)
5. (a) Describe user satisfaction (12)  
(b) How do you measure the user satisfaction in your project (04)
6. Explain the steps involved in designing the view layer classes? (16)
7. Describe the purpose of view layer interface? (16)

