



KINGS

COLLEGE OF ENGINEERING



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

QUESTION BANK

Subject Code/Name : CS 1402/OOAD

Year/Sem :IV/VII

UNIT-I-INTRODUCTION

PART-A (2 marks)

1. Write about the traditional development methodologies?
2. Define objects.
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?

CS1402 - OBJECT ORIENTED ANALYSIS AND DESIGN

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?
26. What are the advantages of Waterfall model?
27. What is software correctness?
28. What is Software correspondence?
29. What is software verification?
30. What is software Validation?
31. How is software verification differing from validation?
32. What are the uses of prototyping?
33. What is object oriented SDLC?
34. What is Use case modeling?
35. What is Object Modeling?
36. What is Object Oriented Analysis?
37. What is Object Oriented Design?
38. What is Object Oriented Implementation?

PART-B

1. Describe the various Object oriented concepts? (16)
2. Describe the Software Development process. (16)
3. (a) How can we build a high quality Software? (12)
(b) Write the difference between verification and validation (4)
4. Describe the Object oriented Systems Development Life Cycle? (16)

UNIT-II – OBJECT ORIENTED MODELLING

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?
26. What are the strengths of OMT?
27. What are the strength of Booch methodology?
28. What is Usecase.
29. Define object Model

30. Define dynamic model.

PART-B

1. (a) Describe Rumbaugh's Object Modeling Technique? (12)
(b) Explain about Object Oriented Modelling (4)
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 (4)
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 an State Diagram , Activity Diagram and Package Diagram for ViaNet 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 rule?
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.

CS1402 - OBJECT ORIENTED ANALYSIS AND DESIGN

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?
25. Why do we need to identify the system's responsibilities?
26. How would you identify attributes?
27. How would you identify methods?
28. Why do we need methods and messages in object-oriented system?

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 (4)
4. Give a detailed note about Associations? (16)
5. (a) Explain in Detail about the identifying relationships ? (6)
(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?

CS1402 - OBJECT ORIENTED ANALYSIS AND DESIGN

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.
26. Define DDL and DML.
27. What is concurrency policy?
28. What is shareability?
29. What do you mean by transaction?
30. Define client-server computing?
31. Differentiate distributed and cooperative processing?
32. What do you mean by distributed object computing?
33. Write a short note on CORBA?
34. What are the necessary characteristics that a system must satisfy to be considered as an object-oriented system?

CS1402 - OBJECT ORIENTED ANALYSIS AND DESIGN

35. Differentiate object-oriented databases and traditional databases?
36. Describe reverse and forward engineering?
37. Define object-relation mapping?
38. What are the different mapping capabilities to be defined?
39. Define referential integrity?
40. What do you mean by federated multidatabase systems?
41. Define MDBS?
42. Define neutralization (homogenization).
43. What do you mean by ODBC?
44. What are the activities involved in access layer design process?
45. Write short note on creative process?
46. What are the steps in view layer macro process?
47. Give the three UI design rules.
48. What are the windows in user interface used for?
49. What are the three general steps in creating a user interface object?
50. What is a Metaphor?

PART-B

1. Describe in detail about Object oriented database management systems? (16)
2. State the differences between OODBMS and traditional database. Describe object – relational systems? (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. Explain the steps involved in designing the view layer classes? (16)
6. Describe the purpose of view layer interface? (16)

UNIT-V-SOFTWARE QUALITY AND USABLITY

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?

CS1402 - OBJECT ORIENTED ANALYSIS AND DESIGN

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 (4)
5. (a) Describe user satisfaction? (12)
(b) How do you measure the user satisfaction in your project (4)