

PART – A Questions

1. Define object.
2. What is the purpose of object ID?
3. What do you mean by an actor in a use case?
4. What is the main advantage of DFD?
5. What is the 80 – 20 rule?
6. Why is documentation an important part of analysis?
7. What is axioms?
8. Stamp coupling refers to _____.
9. Which corollary tells the development in inheritance relationship?
10. Corollary is build from _____.
11. Define Inheritance.
12. Define Polymorphism.
13. What is a static model?
14. Define Generalization.
15. _____ association is used when you have one use case similar to another use case but does a bit more or more specialized.
16. _____ is the process of checking to see if an object belongs to a category or a class.
17. _____ is an association among more than two classes.
18. Interactions within a single object or software component is called _____.
19. _____ is a specification language that uses simple logic for specifying the properties of a system.
20. _____ is a language-dependent specification of the implementation returned by the method.
21. _____ relationship is called Whole – Part Relationship.
22. _____ interact with system in OMT functional diagram.
23. Actors refers to _____ in UML Use Case diagram.
24. CRC refers to _____
25. Uses relationship in use case diagram refers to _____.
26. _____ is called one to one relationship.

27. Define Axiom.
28. Protected attribute is prefixed with _____ UML symbol.
29. The purpose of access layer is _____.
30. _____ is the runtime entity.
31. Define Object persistence.
32. The purpose of Qualifier is _____ in UML class diagram.
33. Cardinality refers to _____.
34. User interaction with the system is represented by _____ diagram.
35. Domain knowledge refers to _____.
36. "Cycle contains different parts" is represented by using _____ relationship diagram.
37. Corollary are derived from _____.
38. Protocol refers to _____.
39. The purpose of View layer is _____.
40. _____ means that the same operation may behave differently on different classes.
41. The term _____ means a combination of data and logic that represents some real world entity.
42. _____, _____, _____ are the major contributors to the UML notation.
43. The process of looking for patterns to document is called _____.
44. _____ and _____ are the kinds of relationship in use-case diagram.
45. _____ is a technique used for identifying classes' responsibilities, attributes and methods.
46. _____ and _____ are the two major properties of a-part-of relationship.
47. _____ is a proposition that can be proven from accepted axioms and _____ is a proposition that follows from an axiom.
48. _____ is a specification language that uses simple logic for specifying the properties of a system.
49. _____ and _____ are the major tasks of Access layer.
50. Define aggregation. Give an example.
51. Write down the characteristics for determining the high quality of the system.

52. Define Unified Approach.
53. What is meant by dynamic modeling?
54. Mention the elements used in the use case model.
55. Write down the guidelines for developing effective documentation.
56. List out the purpose of object-oriented design Axioms.
57. What are design patterns?
58. What are the responsibilities of view layer object?
59. What is a protocol? What is its function?
60. What is meta class?
61. What is aggregation?
62. What is a model?
63. Give the abbreviation of CASE.
64. What is 80-20 documentation rule?
65. Expand CRC.
66. Define coupling.
67. Minimize the information content of the design is the information axiom. (True / False)
68. List the class visibility.
69. Expand OCL
70. What is an object?
71. Give one advantage of object oriented development.
72. What are the phases of OMT?
73. What is framework?
74. Mention the elements used in the Use-case model.
75. What is noun phrase?
76. What is an association?
77. How would you identify attributes?
78. Define: Design Axiom
79. Give one UI rule
80. What is Association?
81. What are the transformations in Software Development process?

82. Give an example for N-Ary Association.
83. Define generative pattern.
84. Who are Actors?
85. CSR stands for _____.
86. What do you mean by Use Case?
87. Super-Sub structure is otherwise known as _____.
88. What are the protocols?
89. Distinguish redundant class and Method Class
90. Define object.
91. Define Persistence.
92. Expand UML.
93. What is use-case?
94. Expand CRC.
95. What is the purpose of documentation?
96. Define axioms.
97. Define Association.
98. What is the purpose of Object Constraint Language?
99. Give a brief note on object behavior.
100. Define inheritance.
101. _____ is the simulation of interface but contains no functionality.
102. The Abstract of the pattern that gives the reader a clear idea is called as _____.
103. Define multiplicity.
104. Expand CRC.
105. Define use case model.
106. Mention the types of axiom.
107. Define super-sub structure.
108. What are the two main aspects of view layer?
109. Expand OCL.
110. Give a brief note on object behavior.
111. Define object persistence.

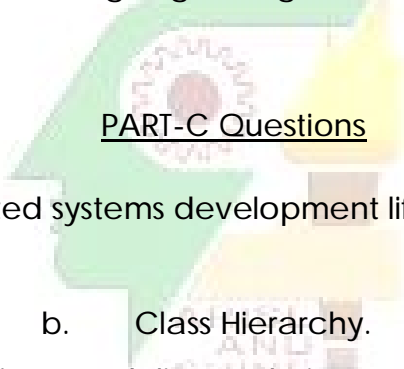
112. What do you mean by object diagram?
113. What is model and what are the types of models?
114. List the approaches for identifying classes.
115. When is the 'extends' association used?
116. What is an association?
117. What is Cohesion?
118. What do you mean by persistence?
119. What are the steps in view layer of a macro process?
120. Define object Persistence.
121. What do you mean by persistence of an object?
122. List the primary symbols used in a DFD.
123. What are anti-patterns?
124. What is a use-case?
125. What are the steps to be followed to develop an effective documentation?
126. Define Schema.
127. What are design Patterns?
128. Define OCL.
129. What is MDBMS?
130. Define Aggregation.
131. What is software validation and verification?
132. Define model.
133. Define use-case diagram.
134. What is CRC?
135. Define concept class.
136. What do you mean by corollary?
137. What is coupling?
138. What is the different class visibility?
139. What is the need of Access layer classes?
140. Define multiplicity.

PART-B Questions

1. What is the use of n-array relationship? Give an example.
2. Write a note on packages.
3. What is a use-case model.
4. What is generalization? Give an example.
5. What is meant by OOD?
6. What is a unified approach?
7. Explain in brief about Dynamic model.
8. Discuss any three common class patterns approach.
9. Write a short summary about Coupling.
10. Brief about any three types of method in a class.
11. What is an association? Give an example.
12. Compare static and dynamic model.
13. Why is analysis a difficult task? Discuss.
14. What is the purpose of axioms?
15. What is meant OOD?
16. What is object state and behavior?
17. List the steps of Micro development process of Booch Methodology.
18. Differentiate Actor over user with sample diagram.
19. What is the use of Corollary?
20. What is the use of Horizontal and Vertical Prototype?
21. What is the use RAD tool?
22. What is use of Extends relationship in use case diagram?
23. Draw the diagram of CRC card.
24. What is aggregation relationship?
25. Write a sample code for UML method definition.
26. What is prototyping and why is it useful?
27. Briefly describe Rumbaugh et al.'s Object Modelling Technique.
28. State the steps to be followed for the Object Oriented Analysis process?
29. How would you identify attributes and methods?
30. What are the steps of view layer macro process?

31. Do you agree that object orientation emphasizes representation of objects?
Justify your answer.
32. What is Meta model? Bring out its significance.
33. What is the basic principle of Classes, Responsibilities, and Collaborators?
34. What is an association class?
35. What are the metrics to check whether the given class or object is well designed?
36. Write about encapsulation and information hiding.
37. Write the difference between pattern and framework.
38. Identify the classes for the ViaNet Bank ATM System using CRC.
39. What guidelines would you use to identify a-part-of structures?
40. Write the User Interface rules
41. Write short notes on consumer-producer association.
42. What are the steps in Micro Development Process?
43. List out the guidelines for developing effective documentation.
44. What is A-Part of relationship? Mention its properties.
45. Describe the four major activities in the process of designing view layer classes.
46. Why software is inherently complex?
47. What do you mean by use-case extensibility?
48. What do you mean by object model?
49. Distinguish between Coupling and Cohesion.
50. Distinguish between Micro and Macro Level processes.
51. Write briefly about inheritance and explain the types of inheritance.
52. Give the steps involved in Macro development process in Booch methodology.
53. Define CRC and write the three steps in CRC Process.
54. What do you mean by aggregation? What are the major properties of a-part-of relation?
55. Explain the steps involved in designing the View layer classes
56. How to build high quality software?
57. Differentiate macro and micro development process in Booch methodology.
58. What are the approaches for identifying classes?

59. Mention the types of coupling and express its degree.
60. What are the metrics to check whether the given class or object is well designed?
61. What is meant by object identity? Give an example.
62. List out the static and dynamic model diagrams associated with UML.
63. What are the processes associated with object oriented analysis.
64. How to eliminate unnecessary associations?
65. Write a brief note on class visibility.
66. Define object persistence.
67. State Rumbaugh et al's methodology.
68. What is 80-20 rule?
69. State object-oriented design axiom.
70. List out the guidelines for designing Dialog boxes and error message.



PART-C Questions

1. Describe object oriented systems development life cycle.
2. Write notes on:
 - a. Encapsulation
 - b. Class Hierarchy.
3. Compare different object modeling techniques.
4. Explain UML diagrams for different functions.
5. Describe OO analysis and compare with conventional one.
6. Explain about developing effective documentation in detail.
7. What are OOD axioms and their significances? Explain.
8. Explain about "a-part of relationships" in detail.
9. Explain with an example how reusability can be achieved using objects.
10. Discuss view layer design to withdraw amount from ATM banking
11. Discuss in detail about the significant features of Object Oriented Technology.
12. Briefly describe about the Object Oriented systems development life cycle.
13. Write a brief summary about Booch Methodology in object paradigm.
14. Explain various UML Class Diagram Notations.

15. Identify classes and their behaviors through sequence/collaboration modeling for ViaNet Bank ATM System.
16. Illustrate about use case model with a suitable example.
17. Summarize in detail about super-sub class relationships and a-part-of relationships.
18. Discuss about any four corollaries in the object-oriented design process and design axioms.
19. Give a detail description about class visibility and refining attributes while designing classes.
20. Explain about macro level process to identify view classes by analyzing use cases.
21. Explain various phases of OOSD development life cycle.
22. Explain associations and Aggregations with examples.
23. Explain in detail the micro and macro process of object-oriented development.
24. Describe the purpose, function and UML notation of the class diagram.
25. What is object-oriented analysis? Explain the various steps involved.
26. Explain about noun phrase approach method in detail.
27. How would you identify methods and attributes of a class responsibility? Write down the guidelines to define attributes of a class responsibility.
28. Discuss the different types of corollary of object oriented design axioms.
29. Write short notes on Table-class mapping.
30. Discuss view layer design to withdraw amount from ATM banking.
31. Discuss various building blocks of object oriented programming analysis and design.
32. Discuss OOSAD Life cycle model in detail.
33. Discuss the object diagram of OMT technique.
34. Explain UML Class Diagram with various relationships.
35. Draw and explain UML Interaction diagram for issuing the Books in library.
36. Explain Noun Phrase approach of classification with sample ATM examples.
37. Write notes on
 - a. Super-Sub class hierarchy
 - b. A Part of relationship



38. Discuss design axioms and corollary with sample examples.
39. Discuss the rules for designing classes.
40. Discuss the designing of the access layer for ATM banking.
41. Write notes on
 - a. Aggregation relationship.
 - b. Object ID
 - c. Object persistence
 - d. Polymorphism
42. Compare the waterfall life cycle model over OOSAD life cycle model.
43. Discuss object oriented software engineering of Jacobson in detail.
44. Draw the UML Interaction and collaboration diagram to withdraw amount in ATM banking.
45. Explain the activity diagram with sample example.
46. Explain common class pattern approach of classification with sample example.
47. Explain design patterns and frameworks.
48. Discuss the methods of defining attributes and methods for ATM banking.
49. Discuss view layer design of macro and micro development process.
50. Draw the access layer and View layer for withdrawing amount in ATM banking
51. What are the elements of object oriented systems development?
52. Write about
 - i) Object and Identity
 - ii) Static and Dynamic Binding
 - iii) Object Persistence
 - iv) Meta-Classes.
53. Explain in detail about
 - a. Component-based development
 - b. Rapid application development.
 - c. Reusability
54. Explain in detail about
 - a. Booch's Macro development and
 - b. Micro development pro
- 55.57. Explain in detail about
 - a. Patterns and Antipatterns
 - b. Frameworks
56. Explain in detail about the noun phrase approach for identifying classes with ViaNet Bank ATM System.



57. Why is analysis a difficult activity? Explain in detail about the use-case model and how to identify the use-cases?
58. State and prove the axioms and corollaries of the object oriented design process.
59. Explain in detail about how to identify the Associations and super-sub class relationship.
60. Explain in detail about the following.
61. The process of designing classes
- Refining attributes while designing classes
 - Designing methods and protocols
 - Packages and managing classes
62. Explain in detail about the activities for the design process of access layer.
63. What are the macro processes of object-oriented s/w development life cycle? Discuss.
64. a. Explain encapsulation and abstraction.
b. How does object oriented methodology differ from other programming methodologies? Discuss.
65. Compare and contrast the object oriented methodology of Booch, Rumbaugh and Jacobson.
66. a. Draw a use case diagram for a library information system and a sequence diagram to issue a book from a library.
b. Suppose that a computer is built of one or more CPUs, sound card and video card. If we model the system with representative classes, draw the class diagram (relationship and multiplicity) among the following classes: computer, CPU, sound card and video card.
67. Briefly explain the approaches used for identifying classes and objects.
68. Use the noun phrase approach to identify the objects from the grocery store problem. A store wants to automate its inventory. It has point-of-sale terminals that can record all of the items and quantities that a customer purchases. Another terminal is also available for the customer service desk to handle returns.

It has a similar terminal in the loading dock to handle arriving shipments from suppliers. The meat department and produce department have terminals to enter losses/discounts due to spoilage.

69. a. Describe about association and a-part-of relationship in detail.
 - b. Explain the metrics to check whether the given class or object is well designed?
70. State the 6 corollaries of Object Oriented Design. Explain all of them in detail with suitable examples.
71. Describe in detail about the four major activities of view layer classes design.
72. Discuss in detail about object-oriented design class.
73. Discuss about the criteria to be considered when making a decision as to in which class the cooperating methods have to be placed.
74. Write about the object oriented systems development based on a use- case driven approach.
75. Explain about the object basics.
76. Explain about the following:
77. a. Rumbaugh et al.'s object modeling technique
 - b. The Booch methodology
78. Explain about the following diagram with example
- a. UML State Chart Diagram
 - b. UML Activity Diagram
 - c. UML Class Diagram
79. Write about the Noun phrase Approach. Find the classes for Vianet Bank ATM using noun phrase approach.
80. Write about the Common class patterns approach. Find the classes for Vianet Bank ATM using Common class patterns approach.
81. Explain about design axioms and corollaries.
82. How can you analyze the relationship of the ViaNet Bank ATM System?
83. a. How do you refine attributes for the ViaNet bank objects?
 - b. How do you design methods for the vianet bank objects?
84. How can you design Access layer classes? Design the Access layer for the vianet Bank ATM.

85. Describe the various object oriented concepts.
86. Briefly explain about object oriented systems developments life cycle.
87. How can we build a high quality software?
88. Give a detailed account of Jacobson methodology.
89. Write short notes on Unified approach.
90. Draw the class diagram, use-case diagram, interaction diagram for Library management system.
91. Demonstrate the guidelines for finding use cases and developing effective documentation. b Draw the Use-Case model for ATM Bank operation.
92. Give detailed notes about the Noun phrase approach.
93. Discuss the importance of proper classification. Briefly explain the different approaches used for identifying classes and objects.
94. Give a detailed note about Associations
95. Write short notes on the following:
 - a. Object Relationships and Association
 - b. Building High Quality Software
 - c. RAD
96. Explain the object-oriented SDLC for use case approach.
97. Discuss the Jacobson OOSE.
98. Explain the UML class diagram with example.
99. Briefly describe the use case model.
100. Elaborately discuss the identifying classes and their behaviors through sequence and collaboration modeling in use case driven approach.
101. What are object-oriented design Axioms and corollaries? Explain them briefly
102. Describe about the object-oriented design process in the unified approach.
103. Write short notes on the following:
104. Steps of the process in designing classes.
105. Designing Methods for the Vianet Bank object.
106. Write detailed notes on designing access layer classes.
107. Discuss about Super-sub class relationship and a-part-of relationship.
108. Explain about the axioms and corollary.

109. a. Elaborate on designing methods for the vianet bank objects, packages.
b. Write short notes on: designing Access Layer.
110. a. Explain the macro and micro process of a view layer design.
b. Describe the purpose of view layer interface.
111. Explain the object –oriented system development life cycle with example.
112. Explain the basic characteristics of Object-oriented concepts with example.
113. Explain Rumbagh and Booch methodologies with examples.
114. Explain briefly the various UML diagrams with suitable example.
115. Define Use-Case diagram. Explain the components of the use-case diagram.
Draw and explain a use-case diagram for inventory management.
116. Explain the various classification approaches with suitable example.
117. Discuss on different Corollaries with example.
118. Explain the various Class Relationships with neat diagram.
119. Explain the Access Layers with example.
120. Create and explain Access Layer for a Banking System with neat diagram.
121. Explain the various Object oriented concepts.
122. Discuss about the Software Development process.
123. Discuss about Rumbaugh’s Object Modeling Technique.
124. Explain the UML Class diagram.
125. Give detailed notes about the Noun phrase approach.
126. Explain about Use Case Model.
127. Give a detailed note on Super-sub class relationship and a-part-of relationship?
128. Explain the various design rules.
129. Explain the steps involved in designing the Access layer classes.
130. Explain the Refining Attributes for the VIANET Bank Objects.
131. a. Explain use-case driven object oriented analysis and object oriented design.
b. Explain consumer producer association.
132. Describe the software development process in detail.



133. Explain Rumbagh and Jacobson methodologies with examples.
134. Describe the pattern template in detail.
135. Differentiate Object Oriented Analysis and Object Oriented Design in unified approach.
136. How do you analyze the bank ATM using Use-Case driven process?
137. Identify the different classes using Noun Phrase approach for the following Problem statement.
138. The bank client must be able to deposit the amount to and withdraw the amount from his/her account using touch screen. Each transaction must be recorded, the client must be able to review all the transactions performed in the account. Record transactions must include date, type, amount, and account balance after the transaction. A client can have two types of account - a checking and a savings account. Access to the ATM account is provided by a PIN code of 4 integer digits from 0 to 9.
139. Explain the different Corollaries elaborately.
140. Describe about association and a-part-of relationship in detail.
141. how to identify view classes and how to design interface objects?
142. Design a user interface for an ATM Banking System with neat diagram.
143. Explain in detail about various object oriented features with example.
144.
 - a. Briefly explain about OOSD life cycle.
 - b. Compare procedural approach with object oriented approach with suitable example.
145. Discuss in detail about Booch methodology with example and diagram.
146. Draw the class diagram, use case diagram for railway reservation system.
147. Discuss the importance of proper classification. Briefly explain the Noun phrase approach and use case driven approach.
148. Explain in detail about Classes, responsibilities and collaborators with suitable diagrams.
149. Explain the guidelines for identifying super-sub relationship in class.



150. What are the guidelines for defining attributes? Define the attributes for vianet Bank objects.
151. What is meant by axiom? Explain two object oriented design axioms and Corollaries.
152. Draw the activity and class diagram for book renewal in library management system.
153. Explain in detail about the process of creating view layer classes.
154. Discuss the advantages of Object Oriented Approach.
155. Briefly explain the elements of object model.
156. Briefly explain about Object oriented systems developments life cycle.
157. Write short notes on the following:
 - a. Framework
 - b. Pattern
158. Compare and contrast the Object oriented methodology of Booch, Rumbaugh and Jacobson.
159. Explain the Noun phrase approach and how it is applied in ATM case study.
160. Explain use-case driven object oriented analysis.
161. What is association? Explain common association patterns.
162. Explain different corollaries for the design process.
163. Explain about designing methods and protocols.
164. Describe micro and macro level process.

