

Question Bank

1. What is the difference between class diagram and object diagram? Explain with suitable example.
2. What are the various notations used in a sequence diagram?
3. List the building blocks of UML. Name all the diagrams that can be drawn in UML.
4. Differentiate between Generalization, Association and Aggregation with suitable examples.
5. Discuss the Unified Process (UP) Phases in detail.
6. What do you understand by a Use Case? How a Use case can be drawn in UML? What does a Use Case diagram depict? An ATM is used to WITHDRAW cash, change PIN, check BALANCE and generate MINI statement. Customers use the ATM for the above functions. The maintenance people do the cash/repair of the ATM. Draw a use case diagram for the above scenario.
7. A master student can take courses at the BBSBEC. Courses can be lectures or lab classes. Each master student must take at least one course. Each course is held by a research department. Each research department has at least one professor and 0 to 30 Research Assistant. Students, professors and research assistants have a lot in common: They have a name, a first name and a date of birth. Which diagram type should be used to describe this? Draw such a diagram for this.
8. .What is the difference between process and thread?
9. Name the Behavioral patterns used in UML.
10. ..Define Timing Mark and Timing constraint.
11. .Differentiate between Component and Class giving suitable examples.
12. Define History State
13. Define Mediator Pattern
14. Define Node
15. Define Template Pattern
- 16..How do the active and passive objects communicate with each other? Explain in detail.
17. Explain Fork and Join mechanism with the help of example. What is the applicability of swimlanes in Activity Diagram? Draw Activity Diagram for Online Shopping

18. Write a short note on the following:

- a) Creator Pattern
- b) Low Coupling Pattern
- c) AntiPatterns
- d) Domain Modeling

19. Differentiate between Aspect- oriented and Service-oriented software.

20. Write the steps of mapping design to code.

21. Explain

- A) Unit Testing and Cluster Testing of Object –Oriented Programs.
- B) CASE tools.

22. How the events can be classified in UML

23. Differentiate nodes and components

24. List the metrics in CK Metric suite

25. Define Timing Mark and Timing constraint

26. Draw sequence diagram for -"Objects interacting in the context of publish and subscribe scenario".

27. How can we model an embedded system using deployment diagram.Explain with example

28. Draw an activity diagram for a retail business which specifies the workflow involved when a customer returns an item from a mail order

29. How the architecture of software intensive system can be modeled.

30. Differentiate Classes and Advanced Classes

31. Differentiate Relationship and Advance Relationships in context of UML.

32. Identify Usecases and Actors in context of ATM System

33. Plot process and supporting workflows of Software development life cycle against UP phases showing their degrees of focus over time.

34. How we can model systems logical structure using class diagram.Explain with example?
35. Discuss the need of modeling.Explain building blocks of UML.
36. Differentiate between Aspect- oriented and Service-oriented software.
37. Differentiate Unit Testing and Cluster Testing
38. What do you mean by responsibility driven design
39. Explain AntiPatterns
40. Discuss any four case tools.Specify the area in which the CASE tools can be applied
41. Mention the applicability of GRASP Patterns .Discuss creator and Information Expert pattern
42. Elaborate structural Patterns (GOF) highlighting their intent and Purpose