

# 13 Lecture - CS504

## Important Mcqs

Which of the following is NOT a key principle of Object-Oriented Analysis and Design? a) Inheritance b) Encapsulation c) Abstraction d) Procedural Programming **Solution: d) Procedural Programming**

Which UML diagram is used to visualize the dynamic behavior of a system? a) Class Diagram b) Use Case Diagram c) Sequence Diagram d) Activity Diagram **Solution: c) Sequence Diagram**

In OOAD, what is the purpose of the "Aggregation" relationship between classes? a) It represents a whole-part relationship where a part can exist independently. b) It represents a strong association between classes. c) It represents a one-to-many relationship between classes. d) It represents a many-to-many relationship between classes. **Solution: a) It represents a whole-part relationship where a part can exist independently.**

What does the term "Polymorphism" mean in OOAD? a) It allows objects to hide their internal state. b) It allows a class to inherit from multiple superclasses. c) It allows a class to have multiple constructors. d) It allows objects of different classes to be treated as objects of the same class. **Solution: d) It allows objects of different classes to be treated as objects of the same class.**

Which design pattern is used to ensure that a class has only one instance and provides a global point of access to that instance? a) Singleton Pattern b) Factory Pattern c) Observer Pattern d) Prototype Pattern **Solution: a) Singleton Pattern**

Which of the following is an advantage of using interfaces in OOAD? a) Interfaces allow multiple inheritance in Java. b) Interfaces provide concrete implementations of methods. c) Interfaces enable loose coupling between classes. d) Interfaces can have private data members. **Solution: c) Interfaces enable loose coupling between classes.**

In OOAD, what does the term "Abstraction" mean? a) It represents a relationship between two classes where one class inherits from another. b) It allows objects to hide their internal state and only reveal relevant information. c) It represents a relationship between two classes where one class contains objects of another. d) It allows a class to inherit from multiple superclasses. **Solution: b) It allows objects to hide their internal state and only reveal relevant information.**

What is the purpose of the "CRC cards" technique in OOAD? a) It is used to model the static structure of a system using class diagrams. b) It is used to document the responsibilities of classes in a system. c) It is used to model the flow of activities in a system using activity diagrams. d) It is used to visualize the sequence of interactions between objects in a system. **Solution: b) It is used to document the responsibilities of classes in a system.**

Which OOAD principle is violated if a subclass overrides a method of its superclass but does not call the superclass method in the overridden method? a) Polymorphism b) Abstraction c) Encapsulation d) Inheritance **Solution: d) Inheritance**

Which OOAD activity involves refining use cases and identifying the classes and their relationships? a) Design Patterns b) Object-Oriented Design c) Use Case Analysis d) Object-Oriented Analysis **Solution: d) Object-Oriented Analysis**