14 Lecture - CS504

Important Mcqs

Q: What is the primary goal of Object-Oriented Analysis and Design (OOAD)? a) Code optimization b) Writing pseudocode c) Developing modular and maintainable software d) Testing and debugging Solution: c) Developing modular and maintainable software Q: Which UML diagram is used to depict the dynamic behavior of a system? a) Class Diagram b) Sequence Diagram c) Use Case Diagram d) State Diagram Solution: b) Sequence Diagram Q: What does the term "Encapsulation" mean in OOAD? a) Hiding the implementation details of a class b) Creating multiple objects from a class c) Representing a whole-part relationship between classes d) Defining relationships between classes Solution: a) Hiding the implementation details of a class Q: In OOAD, what is the purpose of the "Factory Method" design pattern? a) To allow a class to have multiple constructors b) To ensure a class has only one instance c) To provide an interface for creating objects, allowing subclasses to decide which class to instantiate d) To define a one-to-many dependency between objects Solution: c) To provide an interface for creating objects, allowing subclasses to decide which class to instantiate Q: Which principle of OOAD states that a class should have only one reason to change? a) Abstraction b) Polymorphism c) Single Responsibility Principle d) Inheritance Solution: c) Single Responsibility Principle Q: What is the purpose of the "Observer" design pattern in OOAD? a) To define a one-to-many dependency between objects b) To hide the internal state of an object c) To ensure a class has only one instance d) To allow objects of different classes to be treated as instances of the same class Solution: a) To define a one-to-many dependency between objects Q: Which UML diagram is used to model the static structure of a system? a) Activity Diagram b) Object Diagram c) State Diagram d) Class Diagram Solution: d) Class Diagram Q: What is the purpose of "Abstraction" in OOAD? a) To allow multiple inheritance in Java b) To hide the internal state of an object c) To represent a relationship between classes d) To hide unnecessary details and show only relevant information Solution: d) To hide unnecessary details and show only relevant information Q: In OOAD, what is the key principle violated if a subclass does not call the superclass method in the overridden method? a) Encapsulation b) Polymorphism c) Inheritance d) Abstraction Solution: c) Inheritance Q: What does the "CRC cards" technique in OOAD stand for? a) Class-Responsibility-Collaboration cards b) Class-Relationship-Configuration cards c) Collaboration-Responsibility-Configuration cards d) Collaboration-Relationship-Creation cards Solution: a) **Class-Responsibility-Collaboration cards**