41 Lecture - CS506

Important Mcqs

Sure, here are 10 multiple-choice questions related to Layers and Tiers, along with their solutions and multiple options:

Question 1: What is the primary purpose of using layers in a software architecture?
A) Separating components in different locations.
B) Simplifying user interactions.
C) Achieving efficient code reuse and modularity.
D) Managing user authentication.
Solution: C) Achieving efficient code reuse and modularity.
$\ensuremath{^{**}}$ Question 2: In the OSI networking model, which layer is responsible for routing and forwarding data?**
A) Physical Layer.
B) Data Link Layer.
C) Network Layer.
D) Transport Layer.
Solution: C) Network Layer.
Question 3: In a three-tier architecture, what does the presentation tier handle?
A) Data storage and retrieval.
B) User interface and interaction.
C) Business logic processing.

D) Network routing.

Question 4: Which term refers to a specific instance of a layer or tier in a system? A) Class. B) Object. C) Method. D) Function. **Solution: B) Object.** **Question 5: What is the purpose of the data tier in a three-tier architecture?** A) Managing user interactions. B) Processing business logic. C) Storing and retrieving data. D) Handling network communication. **Solution: C) Storing and retrieving data.** **Question 6: In the OSI model, which layer is responsible for establishing, managing, and terminating connections between devices?** A) Session Layer. B) Transport Layer. C) Presentation Layer. D) Application Layer. **Solution: A) Session Layer.** **Question 7: Which architecture separates components based on their functional roles and

Solution: B) User interface and interaction.

responsibilities?**

A) Object-Oriented Architecture.
B) Layered Architecture.
C) Monolithic Architecture.
D) Peer-to-Peer Architecture.
Solution: B) Layered Architecture.
Question 8: What is a benefit of using a multi-tier architecture?
A) Reduced development complexity.
B) Easier debugging of the entire system.
C) Centralized control of all components.
D) Limited scalability options.
Solution: B) Easier debugging of the entire system.
Question 9: Which tier of a three-tier architecture handles business rules and processes?
A) Presentation Tier.
B) Logic Tier.
C) Data Tier.
D) Application Tier.
Solution: B) Logic Tier.
Question 10: In a network protocol stack, what term is often used interchangeably with "layer"?
A) Component.
B) Tier.
C) Level.
D) Phase.

Solution: C) Level.