11 Lecture - CS403

Important Mcqs

1. **In object-oriented programming, what is inheritance?**
   a) A process of creating new objects
   b) A process of copying existing objects
   c) A process of deriving new classes from existing classes
   d) A process of extending the functionality of existing classes
   Answer: c) A process of deriving new classes from existing classes

   Which keyword is used to implement inheritance in Java?
   a) extends
   b) implements
   c) abstract
   d) final
   Answer: a) extends

   Inheritance enables:
   a) Code reuse
   b) Code duplication
   c) Code obfuscation
   d) Code obsolescence
   Answer: a) Code reuse

   Which of the following statements about inheritance is true?
   a) A derived class can access the private members of its base class.
   b) A derived class can modify the private members of its base class.
   c) A derived class cannot inherit the private members of its base class.
   d) A derived class can inherit the private members of its base class, but cannot access them.
   Answer: c) A derived class cannot inherit the private members of its base class.

   Which of the following is not a type of inheritance?
   a) Single inheritance
   b) Multiple inheritance
   c) Hierarchical inheritance
   d) Parallel inheritance
   Answer: d) Parallel inheritance

   What is the advantage of hierarchical inheritance?
   a) It allows multiple classes to inherit from a single base class.
   b) It allows a class to inherit from multiple base classes.
   c) It allows a class to inherit from itself.
   d) It allows a class to inherit from its own child class.
   Answer: a) It allows multiple classes to inherit from a single base class.

   Which of the following is not a method of implementing inheritance?
   a) Interfaces

b) Abstract classes
c) Composition
d) Polymorphism
Answer: c) Composition

Which of the following is not a disadvantage of using inheritance?
a) Tight coupling between classes
b) Fragile base class problem
c) Difficulty in understanding complex class hierarchies
d) Code obfuscation
Answer: d) Code obfuscation

Which of the following statements about protected members is true?
a) Protected members are accessible only within the same package.
b) Protected members are accessible only within the same class.
c) Protected members are accessible within the same package and in derived classes.
d) Protected members are not accessible in any circumstance.
Answer: c) Protected members are accessible within the same package and in derived classes.

Which of the following is true about the final keyword in Java?
a) It prevents a class from being inherited.
b) It prevents a method from being overridden.
c) It prevents a variable from being modified.
d) All of the above.
Answer: d) All of the above.