

## **MCQ Assignment Chapter 7**

### **Multiple Choice Questions (15)**

- 1. Which inner class can access private members of the outer class?**
  - a) Static Inner Class
  - b) Method-local Inner Class
  - c) Regular Inner Class
  - d) Anonymous Inner Class
  
- 2. Which inner class does not require an instance of the outer class to be instantiated?**
  - a) Regular Inner Class
  - b) Static Inner Class
  - c) Method-local Inner Class
  - d) Anonymous Inner Class
  
- 3. Where is a method-local inner class defined?**
  - a) Outside all methods
  - b) Inside a method
  - c) Inside a static block
  - d) In a separate file
  
- 4. Which inner class has no name?**
  - a) Regular Inner Class
  - b) Static Inner Class
  - c) Anonymous Inner Class
  - d) Method-local Inner Class
  
- 5. What is the main use of an anonymous inner class?**
  - a) To create multiple instances
  - b) To override methods instantly
  - c) To store static data
  - d) To define a new interface
  
- 6. Which type of casting is automatic?**
  - a) Explicit Casting
  - b) Implicit Casting
  - c) Downcasting
  - d) Upcasting
  
- 7. Which casting is done from a base class to a derived class?**
  - a) Upcasting
  - b) Implicit Casting

- c) Downcasting
- d) Automatic Casting

**8. What is required for explicit casting?**

- a) Parentheses and type
- b) Automatic conversion
- c) Same variable name
- d) No requirement

**9. Which of the following is an example of implicit casting?**

- a) byte b = (byte) a;
- b) long b = a;
- c) int a = (int) b;
- d) double d = (double) a;

**10. When is downcasting used?**

- a) To convert a subclass to a superclass
- b) To convert a superclass to a subclass
- c) To convert int to long
- d) To convert byte to int

**11. Which inner class can access the local variables of the method it is defined in?**

- a) Static Inner Class
- b) Regular Inner Class
- c) Method-local Inner Class
- d) Anonymous Inner Class

**12. What is the scope of a method-local inner class?**

- a) Whole program
- b) Only the outer class
- c) Only the method where it is defined
- d) Only the package

**13. Which of the following is true about static inner classes?**

- a) They can access instance variables of the outer class
- b) They can be instantiated without an outer class instance
- c) They must be defined inside a method
- d) They cannot be public

**14. What is the main benefit of using inner classes?**

- a) Reduce code size
- b) Improve encapsulation and modularity
- c) Make code faster
- d) Allow multiple inheritance

**15. Which casting is safe and done implicitly?**

- a) Downcasting
- b) Explicit Casting
- c) Upcasting
- d) Narrowing

**Fill in the Blanks (5)**

16. A \_\_\_\_\_ inner class is defined inside a method.

17. \_\_\_\_\_ casting is done automatically when data types are compatible.

18. An anonymous inner class is used to override methods without providing a \_\_\_\_\_.

19. \_\_\_\_\_ is the process of converting a superclass reference to a subclass reference.

20. A static inner class can be instantiated without an instance of the \_\_\_\_\_.

**True or False (5)**

21. A regular inner class can be instantiated without an instance of the outer class.

22. Anonymous inner classes are often used for event handling.

23. Implicit casting requires explicit syntax like (int).

24. Upcasting is done from a subclass to a superclass.

25. Method-local inner classes can be accessed outside the method they are defined in.