

## 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.