

## MCQ

### Subject: Object Oriented Programming with JAVA

Subject Code: MCAN-203

1. Which statement is true about Java?

- a) Java is a sequence-dependent programming language
- b) Java is a code dependent programming language
- c) Java is a platform-dependent programming language
- d) Java is a platform-independent programming language**

Answer: d

Explanation: Java is called 'Platform Independent Language' as it primarily works on the principle of 'compile once, run everywhere'.

2. Which component is used to compile, debug and execute the java programs?

- a) JRE
- b) JIT
- c) JDK**
- d) JVM

Answer: c

3. What is the range of data type short in Java?

- a) -128 to 127
- b) -32768 to 32767**
- c) -2147483648 to 2147483647
- d) None of the mentioned

**Answer: b**

Explanation: Short occupies 16 bits in memory. Its range is from -32768 to 32767.

4. Which one of the following is not a Java feature?

- a) Object-oriented
- b) Use of pointers**
- c) Portable
- d) Dynamic and Extensible

Answer: b

5. The \u0021 article referred to as a

- a) Unicode escape sequence**
- b) Octal escape
- c) Hexadecimal
- d) Line feed

Answer: a

6. What is the return type of the hashCode() method in the Object class?

- a) Object
- b) int**
- c) long
- d) void

Answer: b

7. Which of the following is a valid long literal?

- a) ABH8097
- b) L990023
- c) 904423
- d) 0xnf029L**

**Answer:** (d) 0xnf029L

**Explanation:** For every long literal to be recognized by Java, we need to add L character at the end of the expression. It can be either uppercase (L) or lowercase (l) character. However, it is recommended to use uppercase character instead of lowercase because the lowercase (l) character is hard to distinguish from the uppercase (i) character.

For example,

1. Lowercase l: 0x466rffl
2. Uppercase L: 0nhf450L

Hence, the correct answer is an option (d).

8. What does the expression float a = 35 / 0 return?

- a) 0
- b) Not a Number
- c) Infinity**
- d) Run time exception

**Answer:** (c) Infinity

**Explanation:** In Java, whenever we divide any number (double, float, and long except integer) by zero, it results in infinity. According to the IEEE Standard for Floating-Point Arithmetic (IEEE 754), if we divide 1/0 will give **positive infinity**, -1/0 will give **negative infinity**, and 0/0 will give **NaN**. But on dividing an integer by zero, it throws a runtime exception, i.e., java.lang.ArithmeticException.

Hence, the correct answer is an option (c).

9. What will be the output of the following program?

```
public class Test {  
    public static void main(String[] args) {  
        int count = 1;  
        while (count <= 15) {  
            System.out.println(count % 2 == 1 ? "***" : "+++++");  
            ++count;  
        } // end while  
    } // end main  
} //end class
```

- a) 15 times \*\*\*
- b) 15 times +++++
- c) 8 times \*\*\* and 7 times +++++**
- d) Both will print only once

**Answer:** (c) 8 times \*\*\* and 7 times +++++

10. Which of these class is superclass of every class in Java?

- a) String class
- b) Object class
- c) Abstract class
- d) ArrayList class

Answer: b

Explanation: Object class is superclass of every class in Java.

11. Which of these method of Object class can clone an object?

- a) Objectcopy()
- b) copy()
- c) Object clone()
- d) clone()

Answer: c

12. Which of these method of Object class is used to obtain class of an object at run time?

- a) get()
- b) void getclass()
- c) Class getclass()
- d) None of the mentioned

Answer: c

13. What will be the output of the following Java program?

```

class A
{
    int i;
    int j;
    A()
    {
        i = 1;
        j = 2;
    }
}
class Output
{
    public static void main(String args[])
    {
        A obj1 = new A();
        A obj2 = new A();
        System.out.print(obj1.equals(obj2));
    }
}

```

- a) false
- b) true
- c) 1
- d) Compilation Error

Answer: a

Explanation: obj1 and obj2 are two different objects.

14. What will be the output of the following Java program?

```

class Test
{
    public static void main(String args[])
    {
        int i=5, j=5;
        System.out.println( i>j && ++i>j);
        System.out.print(i);
    }
}

```

- a) false
- 6
- b) true
- 6
- c) false
- 5
- d) Compilation Error

Answer: c

Explanation: short circuit logical operator.

15. Properties are implemented using \_\_\_\_ in Java.

- a) Methods
- b) Variables
- c) Interfaces
- d) All the above

Answer: b

16. A Java class can contain\_\_\_\_.

- a) Variables
- b) Methods, Constructors
- c) Inner Classes (A class inside another class)
- d) All the above

Answer: d

17. Choose the correct way of creating an object of the below class.

```
class Table
{
    Table(){System.out.println("Table Created");}
}
```

- a) Table t = new Table;
- b) Table t = new Table();
- c) Table() t = new Table();
- d) None of the above

Answer: b

18. What is the output of this program?

```
class Conversion {
public static void main(String args[])
{
    double a = 295.04;
    int b = 300;
    byte c = (byte) a;
    byte d = (byte) b;
    System.out.println(c + " " + d);
}
}
```

- a) 38 43
- b) 39 44
- c) 295 300
- d) 295.04 300

Answer: b

Explanation: Type casting a larger variable into a smaller variable results in modulo of larger variable by range of smaller variable. b contains 300 which is larger than byte's range i.e - 128 to 127 hence d contains 300 modulo 256 i.e 44.

19. What is the output of this program?

```
class Bitwise_operator {
public static void main(String args[])
{
    int var1 = 42;
    int var2 = ~var1;
    System.out.print(var1 + " " + var2);
}
}
```

- a) 42 42
- b) 43 43
- c) 42 -43
- d) 42 43

Answer: c

Explanation: Unary not operator, ~, inverts all of the bits of its operand. 42 in binary is 00101010 in using ~ operator on var1 and assigning it to var2 we get inverted value of 42 i.e 11010101 which is -43 in decimal.

20. What is the output of this program?

```
class Bitwise_operator {
public static void main(String args[])
{
    int a = 3;
    int b = 6;
    int c = a | b;
    int d = a & b;
    System.out.println(c + " " + d);
}
}
```

- a) 7 2
- b) 7 7
- c) 7 5
- d) 5 2

Answer: a

Explanation: And operator produces 1 bit if both operand are 1. Or operator produces 1 bit if any bit of the two operands in 1.

21. Method overloading is an example of\_\_\_\_\_

- a) Abstraction
- b) Polymorphism
- c) Inheritance

d) Encapsulation

Answer: b

22. Constructor name must be same as \_\_\_\_\_.

- a) method name
- b) class name
- c) class members name
- d) none of these

Answer: b