

Full Stack Development – Worksheet 2

Q1. Java method overloading implements the OOPS concept

- A. Encapsulation
- B. Inheritance
- C. Polymorphism
- D. Abstraction

Ans - Java method overloading implements the OOPS concept of polymorphism, where multiple methods with same name but different parameters. **Hence, the correct option is (C)**

Q2. Data members and member functions of a class are private by default.

- A. True
- B. False
- C. Depend on code
- D. None

Ans - Data members and member functions of a class are private by default. **Hence, the statement is True (option A).**

Q3. Which of the following functions can be inherited from the base class?

- A. Constructor
- B. Static
- C. All
- D. None

Ans - None of the provided functions can be inherited from the base class. **Hence, the correct option is (d).**

Q4. Identify the feature, which is used to reduce the use of nested classes.

- A. Binding**
- B. Abstraction**
- C. Inheritance**
- D. None**

Ans - Inheritance concept can be used to reduce the dependency of nested classes. **Hence, the correct option is (c).**

Q5. Which concept of Java is achieved by combining methods and attributes into a class?

- A. Encapsulation**
- B. Inheritance**
- C. Polymorphism**
- D. Abstraction**

Ans - In encapsulation, data is binded with methods. **Hence, the correct option is (a).**

Q6.Which of the following declarations does not compile?

- A. double num1, int num2 = 0;**
- B. int num1, num2;**
- C. int num1, num2 = 0;**
- D. int num1 = 0, num2 = 0;**

Ans - The “double num1, int num2 = 0” would not compile as there are two data types written in the same line. **Hence, the correct option is (a).**

Q7.Which of these interface must contain a unique element?

- A. Set**
- B. List**
- C. Array**

D. collection

Ans - Set interface only contain unique elements. Hence, the correct option is (a).

Q8.Predict the output?

```
package main;  
  
class T { int t = 20; }  
  
class Main { public static void main(String args[])  
{ T t1 = new T();  
System.out.println(t1.t); } }
```

A. 20

B. 0

C. COMPILE ERROR

Ans - The output will be 20 as the object for class T was created in the main method. Hence, the correct option is (a).

Q9. What is the output of the below Java program?

```
//bingo.java file  
  
public class Hello {  
public static void main(String[] args)  
{  
System.out.println("BINGO");  
}  
}
```

A. BINGO

B. bingo

C. 0

D. Compile Error

Ans - Compiler will throw an error as class name and java file name is different. **Hence, the correct option is (d)**

Q10.What will be the output of the following Java program?

```
class variable_scope
{
    public static void main(String args[])
    {
        int x;
        x = 5;
        {
            int y = 6;
            System.out.print(x + " " + y);
        }
        System.out.println(x + " " + y);
    }
}
```

A. Compilation Error

B. Runtime Error

C. 5 6 5 6

D. 5 6 5

Ans - As the scope of int y will not reach the second print statement, the compiler will throw a error. **Hence, the correct option is (a).**

Q11.What will be the output of the following Java code?

```
class String_demo
{
```

```
public static void main(String args[]){  
    char chars[] = {'a', 'b', 'c'};  
    String s = new String(chars);  
    System.out.println(s);  
}  
}
```

A. abc

B. a

C. b

D. c

Ans - The output will be "abc" as the String will print the elements in char array. **Hence, the correct option is (a).**

Q12. What will be the output of the following Java program?

```
final class A  
{  
    int i;  
}  
  
class B extends A {  
    int j;  
    System.out.println(j + " " + i);  
}  
  
class inheritance  
{  
    public static void main(String args[])  
    {  
        B obj = new B();
```

```
obj.display();
```

```
}
```

```
}
```

A. 2 2

B. 3 3

C. Runtime Error

D. Compilation Error

Ans - A compilation error will be thrown as final class cannot be inherited. **Hence, the correct option is (d).**

Q13.What is output of following program.

```
public class Test
```

```
{
```

```
public int getData() //getdata() 1
```

```
{
```

```
return 0;
```

```
}
```

```
public long getData() //getdata 2
```

```
{
```

```
return 1;
```

```
}
```

```
public static void main(String[] args) {
```

```
Test obj = new Test();
```

```
System.out.println(obj.getData());
```

```
}
```

```
}
```

A. 1

B. 0

C. Runtime Error

D. Compilation Error

Ans - As there are no different parameters in the getData method, the compiler will throw a error. Hence, the correct option is (d).

Q14. What is the output of the following program?

```
public class Test
{
    static int start = 2;
    final int end;
    public Test(int x)
    {
        x = 4;
        end = x;
    }
    public void fly(int distance)
    { System.out.println(end-start+" ");
      System.out.println(distance);
    }
    public static void main(String []args)
    {
        new Test(10).fly(5);
    }
}
```

A. [2 5]

B. [0 0]

C. [5 2]

D. [0 2]

Ans - Here, x is initially 10, which is passed in from the main method, then x is reassigned 4 then end is assigned 4 and stored as final variable. The 4-2 (end - start) = 2. **Hence, the output will be 2,5 (option A).**

Q15.What is the output of the following program?

```
String john = "john";
```

```
String jon = new String(john);
```

```
System.out.println((john==jon) + " " + (john.equals(jon)));
```

A. true true

B. true false

C. false true

D. false false

Ans - In the first line, a new String "john" object is created. The second line uses the new keyword, which means a new String object is created. As John and jon are not the same, the == test on them becomes false. The equals() method is true because the values they refer to are equivalent. **Hence, the correct option is (c).**

Q16. Given that Student is a class, how many reference variables and objects are created by the following code?

```
Student studentName, studentId;
```

```
studentName = new Student();
```

```
Student stud_class = new Student();
```

A. Three reference variables and two objects are created.

B. Two reference variables and two objects are created.

C. One reference variable and two objects are created.

D. Three reference variables and three objects are created.

Ans -) In the given code, three are reference variables- student Name, studentId, and stud_class and studentName and stud_class are created using the new operator, i.e. are objects. **Hence, the correct option is (a).**