

FULL STACK DEVELOPMENT – WORKSHEET 2

Q1 to Q7 are multiple choice questions having one correct answer only.

Q1. Java method overloading implements the OOPS concept

Polymorphism

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

True

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

None

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

Inheritance

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

Encapsulation

Q6.Which of the following declarations does not compile?

`double num1, int num2 = 0;`

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

`Set`

Q8 to Q16 you have to find output and give explanation where

needed. 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);
    }
}
20
```

FLIP ROBO

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");  
    }  
}
```

Compile Error

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);  
    }  
}
```

Compilation Error

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);
    }
}
```

abc

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();
    }
}
```

Compilation Error

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())  
        ;  
    }  
}
```

Compilation Error

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);  
    }  
}
```

[2 5]

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)));
```

false true

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();
```

Two reference variables and two objects are created.

Q17 to Q25 are simple java programs to write.

Q17. Write a java program to check even or odd number

```
import java.util.Scanner;  
public class EvenOdd {  
    public static void main(String[] args) {  
        Scanner reader = new Scanner(System.in);  
        System.out.print("Enter a number: ");  
        int num = reader.nextInt();  
        if(num % 2 == 0)  
            System.out.println(num + " is even");  
        else  
            System.out.println(num + " is odd");  
    }  
}
```

Q18. Write a java program to find average of two numbers

```
import java.util.Scanner;  
public class AVG {  
    public static void main(String[] args) {  
        Scanner reader = new Scanner(System.in);  
        System.out.print("Enter a number1: ");  
        int num1 = reader.nextInt();  
        System.out.print("Enter a number2: ");  
        int num2 = reader.nextInt();  
        System.out.println("Avg :"+(num1+num2)/2);  
    }  
}
```

```
}  
}
```

Q19. Write a java program to swap two numbers

```
import java.util.Scanner;  
public class AVG {  
    public static void main(String[] args) {  
        Scanner reader = new Scanner(System.in);  
        System.out.print("Enter a number1: ");  
        int num1 = reader.nextInt();  
        System.out.print("Enter a number2: ");  
        int num2 = reader.nextInt();  
        int temp;  
        temp=num1;  
        num1=num2;  
        num2=temp;  
        System.out.print(num1+" "+num2);  
  
    }  
}
```

Q20. Write a java program to check whether a number is prime or not

```
public class Main {  
    public static void main(String[] args) {  
        int num = 29;  
        boolean flag = false;  
        for (int i = 2; i <= num / 2; ++i) {  
            // condition for nonprime number  
            if (num % i == 0) {  
                flag = true;  
                break;  
            }  
        }  
        if (!flag)  
            System.out.println(num + " is a prime number.");  
        else  
            System.out.println(num + " is not a prime number.");  
    }  
}
```


}

Q21. Write a java program to find table of n

```
Public class GFG {  
    public static void main(String[] args)  
    {  
        // number n for which we have to print the  
        // multiplication table.  
        int N = 7;  
  
        // looping from 1 to 10 to print the multiplication  
        // table of the number.  
        // using for loop  
        for (int i = 1; i <= 10; i++) {  
            // printing the N*i,ie ith multiple of N.  
            System.out.println(N + " * " + i + " = "+ N * i);  
        }  
    }  
}
```

Q22. Write a java program to find the largest of three numbers.

```
public class Largest {  
    public static void main(String[] args) {  
        double n1 = -4.5, n2 = 3.9, n3 = 2.5;  
        if( n1 >= n2 && n1 >= n3)  
            System.out.println(n1 + " is the largest number.");  
        else if (n2 >= n1 && n2 >= n3)  
            System.out.println(n2 + " is the largest number.");  
        else  
            System.out.println(n3 + " is the largest number.");  
    }  
}
```

Q23. Write a java program to calculate Simple Interest

```
import java.util.Scanner;  
class Main {  
    public static void main(String[] args) {  
        // create an object of Scanner class  
        Scanner input = new Scanner(System.in);  
        // take input from users  
        System.out.print("Enter the principal: ");  
        double principal = input.nextDouble();
```

```
System.out.print("Enter the rate: ");
double rate = input.nextDouble();
System.out.print("Enter the time: ");
double time = input.nextDouble();
double interest = (principal * time * rate) / 100;
System.out.println("Principal: " + principal);
System.out.println("Interest Rate: " + rate);
System.out.println("Time Duration: " + time);
System.out.println("Simple Interest: " + interest);
input.close();
}
}
```

Q24. Write a java program to calculate Area and perimeter of Rectangle

```
import java.util.Scanner;
public class AVG {
    public static void main(String[] args) {
        Scanner reader = new Scanner(System.in);
        System.out.print("Enter a length: ");
        int num1 = reader.nextInt();
        System.out.print("Enter a width: ");
        int num2 = reader.nextInt();
        int temp;

        System.out.print("Area of the rectangle is :"+(num1*num2));
        System.out.print("Perimeterof the rectangle is
        :"+(2*(num1+num2)));

    }
}
```

Q25. Write a java program to check whether character is vowel or consonant

```
public class VowelConsonant {
    public static void main(String[] args) {
        char ch = 'i';
        if(ch == 'a' || ch == 'e' || ch == 'i' || ch == 'o' || ch == 'u' )
            System.out.println(ch + " is vowel");
        else
            System.out.println(ch + " is consonant");
    }
}
```

}