

## WORKSHEET

### 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**

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

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

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

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

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

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

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

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

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

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**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;

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

A. Set

B. List

C. Array

D. collection

**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);
    }
}
```

A. 20

B. 0

C. COMPILE ERROR

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**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

**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

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**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

**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();
}
}

```

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A. 2 2

B. 3 3

C. Runtime Error

**D. 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());
    }
}
```

A. 1

B. 0

C. Runtime Error

**D. Compilation Error**

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**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;
        this.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]

**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

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**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.

**Q17 to Q25 are simple java programs to write.**

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

```
public class EvenOddNumber {  
    public static void main(String[] args) {  
        Scanner input=new Scanner(System.in);  
        System.out.print("Please Enter the number : ");  
        int x=input.nextInt();  
        if(x%2==0) {  
            System.out.println("The " +x +" is Even ");  
        }else {  
            System.out.println("The " +x +" is ODD ");  
        }  
    }  
}
```

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

```
public class AverageOfTwoNumbers {  
    public static void main(String[] args) {  
        Scanner input=new Scanner(System.in);  
        System.out.print("Please Enter the 1st digits : ");  
        int x=input.nextInt();  
        System.out.print("Please Enter the 2nd digits : ");  
        int y=input.nextInt();  
        System.out.println("The average of " +x +"," +y +" is " +(double)(x+y)/2);  
    }  
}
```

```
}
```

**Q19. Write a java program to swap two numbers**

```
public class SwapTwoNumbers {  
  
    public static void main(String[] args) {  
  
        Scanner input=new Scanner(System.in);  
        System.out.print("Please Enter the 1st digits : ");  
        int x=input.nextInt();  
        System.out.print("Please Enter the 2nd digits : ");  
        int y=input.nextInt();  
        int temp=x;  
        x=y;  
        y=temp;  
        System.out.println(x + " , "+y);  
    }  
}
```

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

```
public class PrimeOrNot {  
  
    public static void main(String[] args) {  
        Scanner input =new Scanner(System.in);  
        System.out.println("Pleaer Enter thr Number : ");  
        int num=input.nextInt();  
        int temp=0;  
        System.out.println(6%2);  
        for(int i=2;i<num;i++) {
```



```

        if(num%i==0) {
            temp++;
            break;
        }
    }if(temp>=1) {
        System.out.println("Given num is not a Prime number ");

    }else {
        System.out.println("Given num is Prime number ");
    }
}
}

```

**Q21. Write a java program to find table of n**

```

public class TableOfN {
    public static void main(String[] args) {

        Scanner input=new Scanner(System.in);
        System.out.print("Please Enter the Number : ");
        int num=input.nextInt();
        for(int i=1;i<=10;i++) {
            System.out.println(num + " * " + i + " = " + num*i);
        }
    }
}

```

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

```
public class LargestNumberOfThree {  
    public static void main(String[] args) {  
        Scanner input=new Scanner(System.in);  
        System.out.print("Please Enter the 1st digits : ");  
        int x=input.nextInt();  
        System.out.print("Please Enter the 2nd digits : ");  
        int y=input.nextInt();  
        System.out.print("Please Enter the 3rd digits : ");  
        int z=input.nextInt();  
        if(x>=y && x>=z) {  
            System.out.println(x+" is greater ");  
        }else if (y>=x && y>=z) {  
            System.out.println(y+" is greater ");  
        }else if((z>=x && z>=y)) {  
            System.out.println(z+" is greater ");  
        }  
    }  
}
```

**Q23. Write a java program to calculate Simple Interest**

```
public class SimpleInterest {  
    public static void main(String[] args) {  
        Scanner input=new Scanner(System.in);  
        System.out.print("Please Enter the Principle amount : ");  
        double total_principle_amount=input.nextDouble();  
        System.out.print("Please Enter the anual intrest rate : ");  
        double intrest_per_year=input.nextDouble();  
        System.out.print("Please Enter the year of tenure : ");  
        double no_of_years=input.nextDouble();  
  
        double  
simple_intrest=(total_principle_amount*(intrest_per_year*no_of_years))/100;  
  
        System.out.println("simple interst: "+simple_intrest);  
  
    }  
}
```

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

```
public class AreaAndPerimeterOfRectangle {  
  
    public static void main(String[] args) {  
        Scanner input=new Scanner(System.in);  
        System.out.print("Please Enter the length of rectangle : ");  
        double lenght=input.nextDouble();  
        System.out.print("Please Enter the width of rectangle : ");  
        double width=input.nextDouble();
```

```

        double perimiter =2*(lenght+width);

        System.out.println("perimiter of rectangle : "+perimiter);


        double area =lenght*width;

        System.out.println("Area of the rectangle : "+area);

    }

}

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

public class VowelOrConstant {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        System.out.println("please Enter the Charecter : ");

        char alpha=input.next().toLowerCase().charAt(0);

        if(alpha=='a' || alpha=='e' || alpha=='i' || alpha=='o' || alpha=='u' ) {

            System.out.println(alpha +" is Vowel : ");

        }else {

            System.out.println(alpha +" Not a vowel ");

        }

    }

}

```