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
ans-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-B.

Q3.Which of the following functions can be inherited from the base class?
A. Constructor
B. Static
C. All
D. None
ans- D.

Q4. Identify the feature, which is used to reduce the use of nested classes.
A. Binding
B. Abstraction
C. Inheritance
D. None
ans-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-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-A.

Q7.Which of these interface must contain a unique element?
A. Set
B. List
C. Array
D. collection
ans-A
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
ans-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-A.

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-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-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();
}
}
```

WORKSHEET
A. 2 2
B. 3 3
C. Runtime Error
D. Compilation Error
ans-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-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-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-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-C.

Q17 to Q25 are simple java programs to write.
Q17. Write a java program to check even or odd number
```
class EvenOdd {
static void isEven(int num) {
            if(num%2==0) {
      System.out.println("This is Even number");
      }else {
      System.out.println("This is Odd number");
      }
      }
      public static void main(String[] args) {
            isEven(656);//method calling
      }
}
```
Q18. Write a java program to find average of two numbers
```
public class Average {
      static int aveOfSum(int num1,int num2) {
            int sum=num1+num2;
            return sum/2;
      }
```

```
            public static void main(String[] args) {
                  System.out.println(aveOfSum(56,76));

}}
Q19. Write a java program to swap two numbers
public class Swap{
      static void swapNum(int n1, int n2) {
            int temp = n1;
            n1 = n2;
            n2 = temp;
            System.out.println("value of n1 is\\" + n1 + "\nvalue of n2 is\\" +
n2);
      }
      public static void main(String[] args) {
                  swapNum(54,76);

}}
Q20. Write a java program to check whether a number is prime or not
import java.util.Scanner;

public class PrimeNumber {

public static void main(String[] args) {
    System.out.println("Enter a  number ");
      Scanner sc=new Scanner(System.in);
      int n=sc.nextInt();
      primeCal(n);
      }
   static void primeCal(int num)
   {
      int count=0;
      for(int i=1;i<=num;i++)
      {
         if(num%i==0)
         {
              count++;
         }
      }
      if(count==2)
             System.out.println("A prime number ");

      else  System.out.println("Not a prime number ");
   }
}
Q21. Write a java program to find table of n
import java.util.Scanner;
public class Table{
      static void tableOfNum(int num) {
            int tab;
            for(int i=1;i<=10;i++) {
            tab=num*i;
            System.out.println("table of num\t"+num+"X"+i+"="+tab);
            }
      }
      public static void main(String[] args) {
            Scanner sc=new Scanner(System.in);
            System.out.println("Enter a table of number");
            int t=sc.nextInt();
                  tableOfNum(t);
```

```
}}
```
Q22. Write a java program to find the largest of three numbers.
```
import java.util.Scanner;
public class Largest1{
	static int largestNum(int num, int num2, int num3) {
		if (num == num2 && num == num3) {
			return 1;
		} else if (num > num2 && num > num3) {

			return num;
		} else if (num2 > num3) {
			return num2;
		} else {
			return num3;
		}
	}
	public static void main(String[] args) {
		Scanner sc=new Scanner(System.in);
		System.out.println("Enter 3 numbers");
		int t=sc.nextInt();
		int tt=sc.nextInt();
		int ttt=sc.nextInt();
		System.out.println(largestNum(t,tt,ttt));
	}}
```
Q23. Write a java program to calculate Simple Interest

```
import java.util.Scanner;
public class Largest1{
	static int simpleInterest(int p, int r, int t) {
		return (p*r*t)/100;
	}

	public static void main(String[] args) {
		Scanner sc=new Scanner(System.in);
		System.out.println("Enter 3 numbers");
		int t=sc.nextInt();
		int tt=sc.nextInt();
		int ttt=sc.nextInt();
		System.out.println(simpleInterest(t,tt,ttt));
	}}
```

Q24. Write a java program to calculate Area and perimeter of Rectangle ?
```
import java.util.Scanner;
public class AreaOAndPermetter{
	static void rectangle(int l, int w, int l1, int w1) {
		int perimetter = l + w;
		perimetter += perimetter;
		int area = l1 * w1;
		System.out.println(perimetter + "\\" + area);
	}
	public static void main(String[] args) {
		Scanner sc=new Scanner(System.in);
		System.out.println("Enter length's value for perimetter");
		int t=sc.nextInt();
		System.out.println("Enter width's value for perimetter");
		int tt=sc.nextInt();
		System.out.println("Enter length's value for area");
		int ttt=sc.nextInt();
		System.out.println("Enter width's value");
```

```
        int tttt=sc.nextInt();
            rectangle(t,tt,ttt,tttt);
      }}
```

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

```
import java.util.Scanner;
public class AreaOAndPermetter{
      static void checkVowelOrConso(char c) {
            if (c == 'A' || c == 'E' || c == 'I' || c == 'O' ||
            c == 'U' || c == 'a' || c == 'e' || c == 'i' || c == 'o'
                        || c == 'u') {
                  System.out.println("\\the character is vowel");
            } else {
                  System.out.println("this character is consonant");
            }
      }

      public static void main(String[] args) {
            Scanner scanner = new Scanner(System.in);
          System.out.println("Enter a character: ");
          char c = scanner.next().charAt(0);
                    checkVowelOrConso(c);
      }}
```