

Q1. Java method overloading implements the OOPS concept

C. Polymorphism

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

A. True

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

D. None

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

C. Inheritance

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

A. Encapsulation

Q6. Which of the following declarations does not compile?

A. double num1, int num2 = 0;

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

A. Set

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

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

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);  
    }  
}
```

B. Runtime 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);  
    }  
}
```

A. Abc

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]

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)));
```

C. 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();
```

A. Three reference variables and two objects are created.

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");
    }
}
```

```
Enter a number: 12
12 is even
```

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

```
import java.util.Scanner;
public class Average
{
    public static void main(String[] args)
    {
```

```

    int n1,n2;

    Scanner sc = new Scanner(System.in);
    System.out.println("Enter number 1 :--> ");
    n1 = sc.nextInt();
    System.out.println("Enter number 2 :--> ");
    n2 = sc.nextInt();
    float avg = (n1+n2)/2;
    System.out.println("Average of (" + n1 + " + " + n2 + ") / 2
= " + avg);
    }
}

```

Q19. Write a java program to swap two numbers

```

public class SwapNumber {
    // main function
    public static void main(String[] args)
    {
        int x = 500, y = 600;

        System.out.println("Before Swap");
        System.out.println("x = " + x);
        System.out.println("y = " + y);

        // Swapping using three
        // Variables
        int temp = x;
        x = y;
        y = temp;

        System.out.println("After swap");
        System.out.println("x = " + x);
        System.out.println("y = " + y);
    }
}

```

Before Swap

x = 500

y = 600

After swap

x = 600

y = 500

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

```
public class PrimeNumber{
    public static void main(String args[]) {
        int i,m=0,flag=0;
        int n=3;//it is the number to be checked
        m=n/2;
        if(n==0||n==1) {
            System.out.println(n+" is not prime number");
        }else{
            for(i=2;i<=m;i++) {
                if(n%i==0) {
                    System.out.println(n+" is not prime number");
                    flag=1;
                    break;
                }
            }
            if(flag==0) { System.out.println(n+" is prime number"); }
        }//end of else
    }
}
```

Q21. Write a java program to find table of n

```
import java.util.Scanner;
public class TableExample
{
    public static void main(String args[])
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter number: ");

        int num=sc.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.

```
import java.util.Scanner;
public class LargestNumberExample1
{
    public static void main(String[] args)
```

```

{
    int a, b, c, largest, temp;

    Scanner sc = new Scanner(System.in);

    System.out.println("Enter the first number:");
    a = sc.nextInt();
    System.out.println("Enter the second number:");
    b = sc.nextInt();
    System.out.println("Enter the third number:");
    c = sc.nextInt();

    temp=a>b?a:b;

    largest=c>temp?c:temp;

    System.out.println("The largest number is: "+largest);
}
}

```

Q23. Write a java program to calculate Simple Interest
import java.util.Scanner;

```

class SimpleInterest {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);

        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

```
public class Exercisel3 {
    public static void main(String[] strings) {
        final double width = 5.6;
        final double height = 8.5;

        double perimeter = 2*(height + width);
        double area = width * height;

        System.out.printf("Perimeter is 2*(%.1f + %.1f) = %.2f \n",
height, width, perimeter);
        System.out.printf("Area is %.1f * %.1f = %.2f \n", width,
height, area);
    }
}
```

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");
    }
}
```