Q1.Java method overloading implements the OOPS concept?

Ans:- Polymorphism

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

Ans:- DEpend on Code

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

Ans:- Constructor

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

Ans:- Inheritance

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

Ans:- Encapsulation

Q6. Which of the following declarations does not compile?

Ans:- double num1, int num2=0;

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

Ans:- Collectoin

Q8. Predict the output?

```
package main;

class T{

intt=20;

}

class Main{

public staric void main (String args[]){

T t1 = new T();

Ststem.out.println(t1.t);

}

}
```

Ans:- 20

Explanation:- In java,member variables can assigned a value with declaration. In c++,only static const variable can be assigned like this.

Q9. What is the output of tghe below java program?

```
//bingo.java file

public class hello

{

public static void main(String[]args){

System.out.println("Bingo");

}


}
```

Ans:- Compile error

Explanation:- The class name and the java file name should be the same. So,change   either file name or class name to match

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);
}
}
```

Ans:- Compilation error

Explanation:- Second print statement doesn't have access to y,scope y was limited to the block defined after initialization of x.

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);

}

}
```

Ans:- 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();

}

}
```


Ans:- Compilation error

Explanation:- In the above code ,two-class are created one is class -A and another is class-B,and class-B is get inherited class-A,In class-b without declaring any function the code was written so in that

System.out.println showing an error,Even the display method is not present in class-B simply calling it is all 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());

}

}

Ans:- Compilation Error

Q14. What is the output of the following program ?

   public class Test{

```java
    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);

}
}
```

Ans:-[2 5]

Q15. Q15.What is the output of the following program?

```java
String john = "john";

String jon = new String(john);

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

Ans:- False True

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

studentName, studentId;

studentName = new Student();

Student stud_class = new Student();

Ans:- Three reference variables and two objects are created

    [Three reference variables are:- studentName,studentId,student stud_class

     Two objects:-studentName,Student stud_class]

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

```java
  public class Main {

 public static void main(String[] args) {

   int number = 5;

   if (number % 2 == 0) {
     System.out.println(number + " is even.");
   } else {
     System.out.println(number + " is odd.");
   }
```

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

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

```java
        // take two numbers
        double num1 = 10;
        double num2 = 20;

        // declare sum variable
        // and initialize with 0
        double sum = 0.0;
        // declare average variable
        double avg = 0.0;

        // calculate the sum value
        sum = num1 + num2;
        // calculate the average value
        avg = sum/2;

        // display result
        System.out.println("Average: " + avg );
    }
}
```

OR

```java
public class AverageOfTwoNumbers {

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

```java
        // declaring num1 & num2 variables to take two numbers, sum variable to

        // calculate sum, and average to calculate average

        float num1, num2, sum, average;


        // Scanner object for reading two numbers from user input

        Scanner sc = new Scanner(System.in);


        // reading first number

        System.out.println("Enter the first number: ");

        num1 = sc.nextFloat();


        // reading second number

        System.out.println("Enter the second number: ");

        num2 = sc.nextFloat();


        // calculating sum of given two numbers

        sum = num1 + num2;


        // calculating the average of given two numbers

        average = sum / 2;


        // Printing the calculated average

        System.out.println("The average of the given two Numbers= " + average);


    }


}
```

Q19. Write a java program to swap two numbers?

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

  int x, y, t;// x and y are to swap

  Scanner sc = new Scanner(System.in);

  System.out.println("Enter the value of X and Y");

  x = sc.nextInt();

  y = sc.nextInt();

  System.out.println("before swapping numbers: "+x +"  "+ y);

  /*swapping */

  t = x;
  x = y;
  y = t;

  System.out.println("After swapping: "+x +"   " + y);


 }
}
```

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

```java
public class Main {

public static void main(String[] args) {

int num = 4;

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 MultiplicationTable {

    public static void main(String[] args) {

        int num ;

        System.out.println("enter any number: ");

        Scanner sc =new Scanner(System.in);

        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.

```
public class largestnumber {
```

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

        int a,b,c,largest,temp ;
        Scanner sc =new Scanner(System.in);
        System.out.println("enter first number: ");
        a=sc.nextInt();
        System.out.println("enter second number: ");
        b=sc.nextInt();
        System.out.println("enter third number: ");
        c=sc.nextInt();


      temp=a>b?a:b;
      largest=temp>c?temp:c;
      System.out.println("the largest number is: "+largest);
   }
}
```

Q23. Write a java program to calculate Simple Interest?


```java
public class Simple_interest {

    public static void main(String[] args) {

        double pa,roi,timing,si ;
        Scanner sc =new Scanner(System.in);
        System.out.println("enter principle: ");
```

```java
        pa=sc.nextInt();

        System.out.println("enter roi: ");

        roi=sc.nextInt();

        System.out.println("enter timing: ");

        timing=sc.nextInt();


    si=(pa*roi*timing)/100;

     System.out.println("the simple interest is: "+si);

   }
}
```

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

```java
public class Simple_interest {

   public static void main(String[] args) {

        double length,width,area,perimeter ;
        Scanner sc =new Scanner(System.in);
        System.out.println("enter length: ");
        length=sc.nextInt();
        System.out.println("enter width: ");
        width=sc.nextInt();
       area=length*width;
       System.out.println("calculate area: "+area);
       perimeter=2*(length+width);
       System.out.println("calculate perimeter: "+perimeter);
```

```
    }
}
```

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

```java
public class Vowelconsonent {

   public static void main(String[] args) {

      char ch;
      System.out.println("enter length: ");
      Scanner sc =new Scanner(System.in);
      ch=sc.next().charAt(0);

      if(ch=='a'|| ch=='e' || ch=='i' || ch=='o'||ch=='u'||ch=='A'||ch=='I'||ch=='O'||ch=='U'||ch=='E')
      {
          System.out.println("the charecter is vowel");
      }
      else {
          System.out.println("the charecter is consonent");
      }


   }
```