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

Q1 Answer – C Polymorphism

Q2 Answer – B False

Q3 Answer – C All

Q4 Answer – B Abstraction

Q5 Answer – A Encapsulation

Q6 Answer – A double num1, int num2 = 0;

Q7 Answer – A set

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

Q8 Answer – A 20

Q9 Answer – A BINGO

Q10 Answer – A Compilation Error

Q11 Answer – A. abc

Q12 Answer – D. Compilation Error

Q13 Answer – C. Runtime Error

Q14 Answer – A. [2 5]

Q15 Answer – C. false true

Q16 Answer – B. Two reference variables and two objects are created

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Q17 to Q25 are simple java programs to write.

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

```
package com.java.worksheet1;
import java.util.*;

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

		Scanner sc = new Scanner (System.in);
		System.out.println("Enter number");

		int number = sc.nextInt();

		if (number % 2 == 0) {
		System.out.println("Even");

		}else {
			System.out.println("Odd");


		}
	}
}
```

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

```java
package com.java.calculator;
import java.util.*;

public class averageoftwonumbers {

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

	  System.out.print("Enter the first number: ");
	  double number1 = input.nextDouble();

	  System.out.print("Enter the second number: ");
	  double number2 = input.nextDouble();

	  // Calculate the average
	  double average = (number1 + number2) / 2.0;

	  System.out.println("The average of " + number1 + " and " + number2 + " is: " +
average);

	  input.close(); // Close the scanner when you're done with it
    }
}
```

Q19. Write a java program to swap two numbers

```java
package com.java.calculator;
import java.util.*;

public class SwapNumbers {

  public static void main(String[] args) {

    int num1 = 5;
    int num2 = 10;

    System.out.println("Before swapping:");
    System.out.println("num1 = " + num1);
    System.out.println("num2 = " + num2);

    // Swap the numbers using a temporary variable

    int temp = num1;
    num1 = num2;
    num2 = temp;

    System.out.println("After swapping:");
    System.out.println("num1 = " + num1);
    System.out.println("num2 = " + num2);
  }

}
```

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

```
package com.java.calculator;
import java.util.*;

public class PrimeNumberChecker {

   public static void main(String[] args) {

      Scanner input = new Scanner(System.in);
      System.out.print("Enter a positive integer: ");
      int number = input.nextInt();


      if (isPrime(number)) {
         System.out.println(number + " is a prime number.");
      } else {
         System.out.println(number + " is not a prime number.");
      }
      input.close();

   }

   // Function to check if a number is prime

   public static boolean isPrime(int num) {
      if (num <= 1) {
         return false; // Numbers less than or equal to 1 are not prime
      }
      for (int i = 2; i <= Math.sqrt(num); i++) {
         if (num % i == 0) {
            return false; // If the number is divisible by any integer in this range, it's not prime
         }

      }

      return true; // If no divisors are found, it's prime

   }

}
```

Q21. Write a java program to find table of n

```
package com.java.calculator;
import java.util.*;

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


       Scanner sc = new Scanner (System.in);
       System.out.print("Enter a number to find its table: ");
       int n = sc.nextInt();
       System.out.println("Multiplication Table of " + n + ":");

    for (int i = 1; i <= 10; i++) {
        int result = n * i;
        System.out.println(n*i);
    }
}}
```

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

```
Package com.java.calculator;

import java.util.Scanner;

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

        Scanner input = new Scanner(System.in);
        System.out.print("Enter the first number: ");

        double num1 = input.nextDouble();
        System.out.print("Enter the second number: ");

        double num2 = input.nextDouble();

        System.out.print("Enter the third number: ");
        double num3 = input.nextDouble();
        double largest = findLargest(num1, num2, num3);
        System.out.println("The largest number is: " + largest);
        input.close();
    }
    // Function to find the largest of three numbers
    public static double findLargest(double a, double b, double c) {
        if (a >= b && a >= c) {
            return a;
        } else if (b >= a && b >= c) {
            return b;
        } else {
            return c;
        }
    }
}
```

Q23. Write a java program to calculate Simple Interest

```
Package com.java.calculator;

import java.util.Scanner;

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

        // Input principal amount, rate of interest, and time period
        System.out.print("Enter the principal amount (in dollars): ");
        double principal = input.nextDouble();

        System.out.print("Enter the rate of interest (in percentage): ");
        double rateOfInterest = input.nextDouble();

        System.out.print("Enter the time period (in years): ");
        double timePeriod = input.nextDouble();

        // Calculate simple interest
        double simpleInterest = (principal * rateOfInterest * timePeriod) / 100.0;

        // Display the result
        System.out.println("Simple Interest: $" + simpleInterest);

        input.close();
    }
}
```

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

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