

ANALYTICAL QUESTIONS

CSA00985 – JAVA PROGRAMMING

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1.INPUT:

```
class sum
{
public static void main(String[] args)
{
int a = -5,b = 8,c= 6;
int a1 = 55,b1 = 9,c1=9;
int a2 = 20,b2 = -3,c2=5,d=8;
int a3 = 5,b3=15,c3=3,d1=2,e=8,d2=3;
int sum = a+b*c;
int sum1 = (a1+b1)%c1;
int sum2 =a2+b2*c2/d;
int sum3 = a3+b3/c3*d1-e%d2;
System.out.println(sum);
System.out.println(sum1);
System.out.println(sum2);
System.out.println(sum3);
}
}
```

2.INPUT:

```
Import java.util.Scanner;
Public class Circle
```

```

{
Public static void main(String[] args)
{
Scanner scanner = new Scanner(System.in);
System.out.print("Enter the radius of the circle: ");
Double radius = scanner.nextDouble();
Double area = 3.14 * radius * radius;
Double perimeter = 2 * 3.14 * radius;
System.out.println("Area of the circle: " + area);
System.out.println("Perimeter of the circle: " + perimeter);
Scanner.close();
}
}

```

3.INPUT:

```

Class BinaryToOctal {
Public static void main(String[] args) {
Long binary = 111;
Int octal = convertBinarytoOctal(binary);
System.out.println(binary + " in binary = " + octal + " in octal");
}

Public static int convertBinarytoOctal(long binaryNumber)
{
Int octalNumber = 0, decimalNumber = 0, i = 0;
While (binaryNumber != 0) {
decimalNumber += (binaryNumber % 10) * Math.pow(2, i);
++i;
}
}
}

```

```

binaryNumber /= 10;
}

l = 1;

While (decimalNumber != 0) {
    octalNumber += (decimalNumber % 8) * l;
    decimalNumber /= 8;
    l *= 10;
}

Return octalNumber;
}
}

```

4.INPUT:

Class Divisible

```

{
    Public static void main(String[] args)
    {
        System.out.println("Numbers divisible by 3:");
        For (int l = 1; l <= 100; i++)
        {
            If (l % 3 == 0)
            {
                System.out.print(l + " ");
            }
        }

        System.out.println("\nNumbers divisible by 5:");
        For (int l = 1; l <= 100; i++)
        {

```

```

If (l % 5 == 0)
{
System.out.print(l + " ");
}
}

System.out.println("\nNumbers divisible by both 3 and 5:");
For (int l = 1; l <= 100; i++)
{
If (l % 3 == 0 && l % 5 == 0)
{
System.out.print(l + " ");
}
}
}
}

```

5.INPUT:

```

Import java.util.Scanner;

Class triangle
{
Public static void main(String[] args)
{
Scanner sc = new Scanner(System.in);

Int l,j,row;

System.out.println("enter the number of rows : ");

Row= sc.nextInt();

For(i=1;i<=row;i++)
{

```

```
For(j=1;j<=l;j++)  
{  
System.out.print(i+ " ");  
}  
System.out.println();  
}  
}  
}
```

6.INPUT:

```
Import java.util.Scanner;  
  
Class Rightangle  
{  
Public static void main(String[] args)  
{  
Scanner sc = new Scanner(System.in);  
Int count=0;  
System.out.println("Enter row : ");  
Int row = sc.nextInt();  
For (int l = 1; l <= row; i++)  
{  
For (int j = 1; j <= l; j++)  
{  
Count++;  
System.out.print(count+ " ");  
}  
System.out.println();  
}  
}
```

```
}  
}
```

7.INPUT:

```
Import java.util.Scanner;
```

```
Class Student
```

```
{
```

```
    Int id;
```

```
    String name;
```

```
}
```

```
Class Details
```

```
{
```

```
Public static void main(String[] args)
```

```
{
```

```
    Student s1=new Student();
```

```
    S1.id=192225077;
```

```
    S1.name="Manokarthikreddy";
```

```
    System.out.println(s1.id + " "+s1.name);
```

```
}
```

```
}
```

8.INPUT:

```
Class Employee {
```

```
    String name;
```

```
    Int age;
```

```
    String phone;
```

```
    String address;
```

```
    Double salary;
```

```
    String specialization;
```

```
Employee(String name, int age, String phone, String address, double salary)
{
    This.name = name;
    This.age = age;
    This.phone = phone;
    This.address = address;
    This.salary = salary;
    This.specialization = specialization;
}

Void printDetails()
{
    System.out.println("Employee Details:");
    System.out.println("Name: " + name);
    System.out.println("Age: " + age);
    System.out.println("Phone: " + phone);
    System.out.println("Address: " + address);
    System.out.println("Salary: $" + salary);
    System.out.println();
}

}

Class Manager extends Employee {
    String department;

    Public Manager(String name, int age, String phone, String address, double salary)
    {
        Super(name, age, phone, address, salary);
        This.department = department;
    }
}
```

@Override

Void printDetails()

```
{  
    System.out.println("Manager Details:");  
    System.out.println("Name: " + name);  
    System.out.println("Age: " + age);  
    System.out.println("Phone: " + phone);  
    System.out.println("Address: " + address);  
    System.out.println("Salary: $" + salary);  
    System.out.println();  
}
```

Class Mian

```
{  
    Public static void main(String[] args)  
    {  
        Employee employee = new Employee("John Doe", 30, "1234567890", "123 Main St, City",  
        50000.0);  
        Manager manager = new Manager("Jane Smith", 35, "9876543210", "456 Park Ave, Town",  
        80000.0);  
        Employee.printDetails();  
        Manager.printDetails();  
    }  
}
```

9.INPUT:

Class ConsonantRemoval

```
{  
    Public static void main(String[] args)
```



```

{
String input = "Hello,have a nice day";
String result = removeConsonants(input);
System.out.println(result);
}

Public static String removeConsonants(String input)
{
Return input.replaceAll("[^aeiouAEIOU]", "");
}
}

```

10.INPUT:

```

Import java.util.Scanner;

Class CharacterCount
{
Public static void main(String[] args)
{
Scanner scanner = new Scanner(System.in);
System.out.print("Enter a string: ");
String input = scanner.nextLine();
Scanner.close();
Int vowels = 0;
Int consonants = 0;
Int digits = 0;
Int whitespace = 0;
For (int i = 0; i < input.length(); i++)
{

```

```
Char ch = input.charAt(i);
If (Character.isLetter(ch))
{
    Ch = Character.toLowerCase(ch);
    If (ch == 'a' || ch == 'e' || ch == 'i' || ch == 'o' || ch == 'u')
    {
        Vowels++;
    }
    Else
    {
        Consonants++;
    }
}
Else if (Character.isDigit(ch))
{
    Digits++;
}
Else if (Character.isWhitespace(ch))
{
    Whitespace++;
}
}

System.out.println("Vowels: " + vowels);
System.out.println("Consonants: " + consonants);
System.out.println("Digits: " + digits);
System.out.println("Whitespace characters: " + whitespace);
}
}
```