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;
}
I = 1;
While (decimalNumber != 0) {
octalNumber += (decimalNumber % 8) * I;
decimalNumber /= 8;
I *= 10;
}
Return octalNumber;
}
}
```

4.INPUT:

```
Class Divisible
{
Public static void main(String[] args)
{
System.out.println("Numbers divisible by 3:");
For (int I = 1; I <= 100; i++)
{
If (I % 3 == 0)
{
System.out.print(I + " ");
}
}
System.out.println("\nNumbers divisible by 5:");
For (int I = 1; I <= 100; i++)
{
```

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

5.INPUT:

```
Import java.util.Scanner;
Class triangle
{
Public static void main(String[] args)
{
Scanner sc =  new Scanner(System.in);
Int I,j,row;
System.out.println("enter the number of rows : ");
Row= sc.nextInt();
For(i=1;i<=row;i++)
{
```

```
For(j=1;j<=I;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 I = 1; I <= row; i++)
{
For (int j = 1; j <= I; 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);
}
```

```
}
```