1. Write program to find whether a given year is a leap year or not.
   Ans:

```
public class LeapYear {

        public static void main(String[] args) {
                // TODO Auto-generated method stubpublic class LeapYear
{
                //to check whethere given year is leap year or not
                   int year = 2002; // int variable to store the year
                   if ((year % 400 == 0) || ((year % 4 == 0) && (year % 100
!= 0))) {//condition to check given year is leap year or not
                     System.out.println(year + " is a leap year.");
                   } else {
                     System.out.println(year + " is not a leap year.");
                   }
                 }
                }
```

2. program to read roll no, name and marks of three subjects and calculate the total, percentage and division
   Test Data :
   Input the Roll Number of the student :784
   Input the Name of the Student :James
   Input the marks of Physics, Chemistry and Computer Application : 70 80 90
   Expected Output :
   Roll No : 784
   Name of Student : James
   Marks in Physics : 70
   Marks in Chemistry : 80
   Marks in Computer Application : 90
   Total Marks = 240
   Percentage = 80.00
   Division = First
   Ans:

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

        /* 2.program to read roll no, name and marks of three subjects
```

```
        //and calculate the total, percentage and division*/
Scanner input = new Scanner(System.in);
System.out.print("Roll No of Student :");
int rollNo = input.nextInt();
System.out.print("Name of The Student :");
input.next();
String studentName = input.nextLine();
System.out.print("marks of physics ,chemistry and computer
Appplication :");
int physicsMarks = input.nextInt();
int chemistryMarks = input.nextInt();
int computerAppMarks = input.nextInt();
double totalMarks = physicsMarks + chemistryMarks +
computerAppMarks;
double percentage = (totalMarks / 300) * 100;
System.out.println("ROLL no : " + rollNo);
System.out.println("Name Of Student : " + studentName);
System.out.println("Marks in Physics : " + physicsMarks);
System.out.println("Marks in chemistry : " + chemistryMarks);
System.out.println("Marks in Computer Application: " +
computerAppMarks);
System.out.println("Total Marks : " + totalMarks);
System.out.println(" Percentage : " + percentage);
if (percentage >= 90) {
System.out.println("Division = First");
} else if (percentage >= 60) {
System.out.println("Division = Second");
} else if (percentage >= 40) {
System.out.println("Division = Third ");
} else
System.out.println(" you are Falied !!");
}
}
```

3. program to read temperature in centigrade and display a suitable message

   Ans:

```
import java.util.Scanner;

class Temperature{

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

```
{
Scanner sc = new Scanner(System.in);
System.out.print("Enter the temperature: ");
int temp=sc.nextInt();
String s="";
if(temp<=0)
s="Freezing ";
else if(temp>=21&&temp<=30)
s="Normal ";
else if(temp>=31&&temp<=40)
s="Hot ";
else if(temp>40)
s="Very hot ";
System.out.println(s+ "weather.");
}
}
```

4. program to check whether a character is an alphabet, digit or special character.

Ans:

```
import java.util.Scanner;
public class AlphabetDigitSpecial {

        public static void main(String[] args) {

            Scanner scanner = new Scanner(System.in);

            System.out.println("Enter any caracter : ");
            char ch = scanner.next().charAt(0);

            if((ch >= 'a' && ch <= 'z') || (ch >= 'A' && ch <= 'Z')) {

                System.out.println(ch + " is A ALPHABET.");
```

```
            } else if(ch >= '0' && ch <= '9') {

                System.out.println(ch + " is A DIGIT.");

            } else {

                System.out.println(ch + " is A SPECIAL
CHARACTER.");
            }

        }
    }
```

5. Write a program in to accept a grade and declare the equivalent description

Grade	**Description**
E	Excellent
V	Very Good
G	Good
A	Average
F	Fail

Test Data :
Input the grade :A
Expected Output :
You have chosen : Average

Ans:

```
import java.util.Scanner;
public class GradeDiscription {
public static void main(String[] args) {
Scanner sc = new Scanner(System.in);
System.out.println(" enter your Grade : ");
char grade = sc.next().charAt(0);
switch (grade) {
case 'A', 'a':
System.out.println("Average");
break;
case 'G', 'g':
System.out.println("Good");
break;
case 'V', 'v':
System.out.println(" Very Good");
break;
case 'E', 'e':
System.out.println("EXcellent ");
break;
case 'F', 'f':
System.out.println("Fail");
break;
default:
```

```
System.out.println("Inavlid Input");

}

}

}
```

6. Write a program to read any day number in integer and display day name in the word.

   Ans:

```
import java.util.Scanner;
public class DayNames {
public static void main(String[] args) {
// TODO Auto-generated method stub
Scanner sc = new Scanner(System.in);
System.out.println("enter day number : ");
int dayNum = sc.nextInt();
switch (dayNum) {
case 1:
System.out.println("Sunday");
break;
case 2:
System.out.println("Monday");
break;
case 3:
System.out.println("Tuesday");
break;
case 4:
System.out.println("Wednesday");
break;
case 5:
System.out.println("Thursday");
break;
case 6:
System.out.println("Friday");
break;
case 7:
System.out.println("Saturday");
break;
default:
```

```
System.out.println("Invalid Input ,Please enter valid input from 1 to 7 ");
}
}
}
```

7. Read integer value and display the number of days for this month.

Ans:

```
import java.util.Scanner;
public class DaysInMonth {
public static void main(String[] args) {
// TODO Auto-generated method stub
Scanner sc = new Scanner(System.in);
System.out.println("enter day number : ");
int dayNum = sc.nextInt();
switch (dayNum) {
case 1:
System.out.println("31 days in january");
break;
case 2:
System.out.println("28 days or 29 days in Feb");
break;
case 3:
System.out.println("31 days in march");
break;
case 4:
System.out.println("30 days in april");
break;
case 5:
System.out.println("31 days in may");
break;
```

```
case 6:
System.out.println("30 days in june");
break;
case 7:
System.out.println("31 days in july");
break;
case 8:
System.out.println("31 days in august");
break;
case 9:
System.out.println("30 days in september ");
break;
case 10:
System.out.println("31 days in october");
break;
case 11:
System.out.println("30 days in november ");
break;
case 12:
System.out.println("31 days in december ");
break;
default:
System.err.println("Invalid Input ,Please check It ");
}
}
}
```