Practical – 2: Program to implement conditional statements

1. **Program that checks whether the two numbers entered by the user are equal or not.**

```
#include <stdio.h>
void main()
{
   int int1, int2;
   printf("Input the values for Number1 and Number2 : ");
   scanf("%d %d", &int1, &int2);
   if (int1 == int2)
      printf("Number1 and Number2 are equal\n");
   else
      printf("Number1 and Number2 are not equal\n");
}
```

2. **Program to find the greatest of three numbers.**

```
void main()
{
   int a, b, c;
   printf("Enter three numbers: \na: ");
   scanf("%d", &a);
   printf("b: ");
   scanf("%d", &b);
   printf("c: ");
   scanf("%d", &c);
   if (a > b && a > c)
      printf("Biggest number is %d", a);
   if (b > a && b > c)
      printf("Biggest number is %d", b);
```

```
    if (c > a && c > b)
        printf("Biggest number is %d", c);
}
```

3. Program to find whether a given number is even or odd.

```
#include <stdio.h>
int main() {
    int num;
    printf("Enter an integer: ");
    scanf("%d", &num);
    if(num % 2 == 0)
        printf("%d is even.", num);
    else
        printf("%d is odd.", num);
    return 0;
}
```

4. Program that tells whether a given year is leap year or not.

```
#include<stdio.h>
#include<conio.h>
void main() {
    int year;
    printf("Enter a year: ");
    scanf("%d", &year);
    if(((year%4==0) && ((year%400==0) || (year%100!==0))
    {
        printf("%d is a leap year", &year);
    } else {
        printf("%d is not a leap year", &year);
    }
    getch();
}
```

5. **The working hours based on age of the laborer is given**

Age	Working Hour
0-10	0
11-15	0
16-20	3
21-25	6
>25	8

Write a program to calculate working hour of a person for a given age.

```
#include<stdio.h>
#include<conio.h>
void main(){
clrscr();
int age;
printf("Enter a AGE: ");
scanf("%d",&age);
if(age>=0 && age<=10) printf("Working Hours: 0");
else if(age>=11 && age<=15) printf("Working Hours: 0");
else if(age>=16 && age<=20) printf("Working hours : 3");
else if (age>=21 && age<=25) printf("Working hours : 6");
else printf("Working Hours: 8");
getch();
}
```

6. **Program to find the roots of a quadratic equation.**

```
# include<stdio.h>
# include<conio.h>
# include<math.h>
main (){
  float a,b,c,r1,r2,d;
  printf (“enter the values of a b c”);
```

```
  scanf (“ %f %f %f”, &a, &b, &c);
  d= b*b – 4*a*c;
  if (d>0){
    r1 = -b+sqrt (d) / (2*a);
    r2 = -b-sqrt (d) / (2*a);
    printf (“The real roots = %f %f”, r1, r2);
  }
  else if (d= =0){
    r1 = -b/(2*a);
    r2 = -b/(2*a);
    printf (“roots are equal =%f %f”, r1, r2);
  }
  else
    printf(“Roots are imaginary”);
  getch ();
}
```

7. WAP to print the given number is even or odd using “conditional operator”.

```
#include < stdio.h >
int main()
{
   int n;
   printf("Enter an integer number\n");
   scanf("%d", &n);
   (n % 2 == 0) ?
   (printf("%d is Even number\n", n)) :
   (printf("%d is Odd  number\n", n));
   return 0;
}
```