

### **Assignment-5: Decision Control Statements**

1. Write a program to check whether a given number is positive or non positive.
2. Write a program to check whether a given number is divisible by 5 or not
3. Write a program to check whether a given number is an even number or an odd number.
4. Write a program to check whether a given number is an even number or an odd number without using % operator.
5. Write a program to check whether the given number is even or odd using a bitwise operator.
6. Write a program to check whether a given number is a three digit number or not.
7. Write a program to print greater between two numbers. Print one number if both are the same.
8. Write a program to check whether roots of a given quadratic equation are real & distinct, real & equal or imaginary roots
9. Write a program to check whether a given year is a leap year or not.
10. Write a program to find the greatest among three given numbers. Print number once if the greatest number appears two or three times.

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(globals)

assig5.1.cpp assig5.2.cpp assig5.3.cpp assig5.4.cpp assig5.5.cpp assig5.6.cpp assig5.7.cpp assig5.8.

```
1 #include<stdio.h>
2 int main(){
3     /*int n;
4     printf("Enter any no.");
5     scanf("%d",&n);
6     if(n>0)
7         printf("Positive number %d",n);
8     else
9         printf("Non positive number %d",n);
10 */
11     int x=10;
12     ++x;
13     printf("%d",x);
14 }
15 }
```

I

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C:\Users\Sohan\Documents\C,C++,DSA Assignment\C programming assignment\assignment5\assig5.2.cpp - Dev-C++

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(globals)

assig5.1.cpp assig5.2.cpp assig5.3.cpp assig5.4.cpp assig5.5.cpp assig5.6.cpp assig5.7.cpp assig5.8.cpp assig5.9.cpp

```
1 #include<stdio.h>
2 int main(){
3     int n;
4     printf("Enter any no. ");
5     scanf("%d",&n);
6     if(n%5==0){
7         printf("%d is divisible by 5 ",n);
8     }
9     else
10    {
11        printf("%d is not divisible by 5 ",n);
12    }
13 }
14
```

I

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(globals)

assig5.1.cpp assig5.2.cpp assig5.3.cpp assig5.4.cpp assig5.5.cpp assig5.6.cpp assig5.7.cpp assig5.8.cpp assig5.9.cpp

```
1 #include<stdio.h>
2 int main(){
3     int n;
4     printf("Enter any no. ");
5     scanf("%d",&n);
6     if(n%2==0)
7         printf("%d is even no.",n);
8     else
9         printf("%d is odd no.",n);
10 }
```

I

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(globals)

assig5.1.cpp assig5.2.cpp assig5.3.cpp assig5.4.cpp assig5.5.cpp assig5.6.cpp assig5.7.cpp assig5.8.cpp assig5.9.cpp

```
1 #include<stdio.h>
2 int main(){
3     int n;
4     printf("Enter any no.");
5     scanf("%d",&n);
6     if(n/2*2==n)
7         printf("%d is even no.",n);
8     else
9         printf("%d is odd no.",n);
10 }
11 
```

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C:\Users\Soham\Documents\C,C++,DSA\Assignment\C programming assignment\assignment\assig5.5.cpp - Dev-C++

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(globals)

assig5.1.cpp assig5.2.cpp assig5.3.cpp assig5.4.cpp assig5.5.cpp assig5.6.cpp assig5.7.cpp assig5.8.cpp assig5.9.cpp

```
1 #include<stdio.h>
2 int main(){
3     int n;
4     printf("Enter any no. ");
5     scanf("%d", &n);
6     if(n&1==1)
7         printf("%d is odd no. ",n);
8     else
9         printf("%d is even no. ",n);
10 }
11
12
```

Compiler Resources Compile Log Debug Find Results

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(globals)

assig5.1.cpp assig5.2.cpp assig5.3.cpp assig5.4.cpp assig5.5.cpp assig5.6.cpp assig5.7.cpp assig5.8.cpp assig5.9.cpp

```
1 #include<stdio.h>
2 int main(){
3     int n;
4     printf("Enter any no.");
5     scanf("%d",&n);
6     if(n>=100&&n<=999)
7         printf("%d is three digit no.",n);
8     else
9         printf("%d is not three digit no.",n);
10 }
11 }
```

C:\Users\Sohan\Documents\C,C++,DSA Assignment\Assignment\Assignment5\assig5.7.cpp - Dev-C++

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(globals)

assig5.1.cpp assig5.2.cpp assig5.3.cpp assig5.4.cpp assig5.5.cpp assig5.6.cpp assig5.7.cpp assig5.8.cpp assig5.9.cpp

```
1 #include<stdio.h>
2 int main(){
3     int a,b;
4     printf("Enter the first no.");
5     scanf("%d",&a);
6     printf("Enter the second no.");
7     scanf("%d",&b);
8     printf("\n");
9     if(a>b)
10        printf("%d is largest.",a);
11    else
12        printf("%d is largest.",b);
13 }
```

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C:\Users\Jordan\Documents\CompSci\Assig5\assig5.10.cpp - Dev-C++

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(globals)

assig5.1.cpp assig5.2.cpp assig5.3.cpp assig5.4.cpp assig5.5.cpp assig5.6.cpp assig5.7.cpp assig5.8.cpp assig5.9.cpp

```
1 #include<stdio.h>
2 #include<math.h>
3 int main(){
4     int a,b,c;
5     printf("Enter the value of a ");
6     scanf("%d",&a);
7     printf("Enter the value of b ");
8     scanf("%d",&b);
9     printf("Enter the value of c ");
0     scanf("%d",&c);
1     printf("\n");
2     float r1,r2,d;
3     if(a==0){
4         printf("Quadratic equation is not possible");
5     }
6     else{
7         d=b*b-4*a*c;
8         if(d>0){
9             r1=(-b+sqrt(d))/2*a;
0             r2=(-b-sqrt(d))/2*a;
1             printf("Roots are r1=%0.2f and r2=%0.2f",r1,r2);
2         }
3         else if(d==0){
4             r1=-b/2*a;
5             r2=-b/2*a;
6             printf("Roots are r1=%0.2f and r2=%0.2f",r1,r2);
7         }
8         else
9             printf("Roots are imaginary");
0     }
1 }
```

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C:\Users\Sohan\Documents\C,C++,DSA\Assignment\assig5.1.cpp

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(globals)

assig5.1.cpp assig5.2.cpp assig5.3.cpp assig5.4.cpp assig5.5.cpp assig5.6.cpp assig5.7.cpp assig5.8.cpp assig5.9.cpp

```
1 #include<stdio.h>
2 int main(){
3     int year;
4     printf("Enter the Year ");
5     scanf("%d",&year);
6     if(year%100==0)
7         if(year%400==0)
8             printf("%d is leap Year.",year);
9         else
10            printf("%d is not leap Year.",year);
11
12     else if(year%4==0)
13         printf("%d is leap year.",year);
14     else
15         printf("%d is not leap year.",year);
16 }
```

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C:\Users\Sohan\Documents\C,C++,DSA Assignment\Assignment\Assignment5\assig5.10.cpp - Dev-

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assig5.1.cpp assig5.2.cpp assig5.3.cpp assig5.4.cpp assig5.5.cpp assig5.6.cpp assig5.7.cpp assig5.8.cpp assig5.9.cpp

```
1 #include<stdio.h>
2 int main(){
3     int a,b,c;
4     printf("Enter the value of a:");
5     scanf("%d",&a);
6     printf("Enter the value of b:");
7     scanf("%d",&b);
8     printf("Enter the value of c:");
9     scanf("%d",&c);
10    if(a>b&&a>c)
11        printf("%d is greatest ",a);
12    else if(b>c)
13        printf("%d is greatest ",b);
14    else
15        printf("%d is greatest ",c);
16
17
18 }
```

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