Practical No - 4

* Aim :- Write a program to demostrate use of conditional statements if statements, if else statements, nested if statements.

* Resources used :-

Sr. No.	Name of Resources	specification	quantity	Remar
1.	Computer system	Windows 10	1	
2.	software	Python IDE	1	

* Practical Related Questions :-

1) List operators used in if conditional statements.

→ i) "!=" — Not equals
ii) "==" — Equals
iii) "<" — less than
iv) ">" — Greater than
v) "<=" — less than or equals to
vi) ">=" — greater than or equals to

Q) differentiate between if-else & nested if else.

→

If-else	Nested if else
i) if else statements tell us the condition is true or false.	i) Nested if else statement is used to target another if else statement on specific condition
ii) In if-else statements there are only if and else	ii) In nested if-else there can be multiple if else nested with each other.
iii) syntax - if condition else	iii) syntax. - if if condition; else

Exercise:

1. Write a program to check whether a number is even or not.

Program:

```
i = int(input("Enter a number"))
if (i % 2) == 0:
   print("its even number ")
else:
   print("odd")
```

output:

```
========== RESTART: D:/CO6I/PYTHON/PR 4A.PY ==========
Enter a number10
its even number
>>>
```

2. Write a program to find out absolute value of an input value.

Program:

```
import math
a = int(input("input a number"))
print(abs(a))
```

output:

```
========== RESTART: D:/CO6I/PYTHON/PR 4B.PY ==========
input a number -5
5
>>>
```

3. Write a program to check largestnumber among three numbers.

Program:

```
a = int(input("enter first number: "))
b = int(input("enter second number: "))
c = int(input("enter third number: "))
if a > b and a > c:
   print(a,"is largest number")
```

```
elif b > a and b > c:
    print(b,"is largest number")
else:
   print(c,"is largest number")
```

OUTPUT:

```
========== RESTART: D:/CO6I/PYTHON/PR 4C.PY ==========
enter first number: 12
enter second number: 103
enter third number: 28
103 is largest number
>>>
```

4. Write a program to check if the input year is leap or not.

Program:

```
year = int(input("enter year:"))

if (year % 4) == 0:
    print("its a leap year")
else:
    print("not a leap year")
```

output:

```
========== RESTART: D:/CO6I/PYTHON/PR 4D.PY ==========
enter year:2020
its a leap year
>>>
========== RESTART: D:/CO6I/PYTHON/PR 4D.PY ==========
enter year:2017
not a leap year
>>>
```

5. Write a program to check if number is positive, negative or zero.

Program:

```
a = int(input("enter a number: "))
if (a > 0):
   print(a,"is a positive number ")
elif(a < 0):
   print(a,"is a negative number")
else:
   print(" its a zero")
```

OUTPUT:

```
========== RESTART: D:/CO6I/PYTHON/PR 4E.PY ==========
enter a number: -5
-5 is a negative number
>>>
========== RESTART: D:/CO6I/PYTHON/PR 4E.PY ==========
enter a number: 6
6 is a positive number
>>>
```

6. Write a program that takes the marks of 5 subjects and displays the grade.

Program:

```
sub1 = int(input("Enter marks of subject science: "))
sub2 = int(input("Enter marks of subject mathematics: "))
sub3 = int(input("Enter marks of subject history: "))
sub4 = int(input("Enter marks of subject english: "))
avg = (sub1 + sub2 + sub3 + sub4)/4
if(avg >= 90):
   print("GRADE A")
elif(avg >= 80 and avg < 90):
   print("GRADE B")
elif(avg >= 70 and avg < 80):
   print("GRADE C")
elif(avg >= 60 and avg < 70):
   print("GRADE D")
```

```
else:
    print("GRADE F")
```

output: