**Operators:-**

**1)Arithmetic operators:**by using arithmetic operators we can perform addition,subtraction,multiplication,division,modulus operations on operands

**Example:-** a + b

Here a,b are operands

+ is the operator

**The following are the some of the examples Arithmetic operators:-**

>>> a=10

>>> b=20

>>> print(a+b)

30

>>> print(a-b)

-10

>>> print(a\*b)

200

>>> print(a/b)

0.5

>>> print(a%b)

10

>>> print(a//b)

**2)Assignment Operators:-**here we assign a variable to store the values by using “=” equal to operator

**The following are the some of the examples:-**

>>> a=10

>>> b=20

>>> c=a+b

>>> print(c)

30

>>> c=a-b

>>> print(c)

-10

>>> c=a\*b

>>> print(c)

200

>>> c=a/b

>>> print(c)

0.5

>>> c=a%b

>>> print(c)

10

**Another way to assign values to variables:-**

>>> a+=b

>>> print(a)

30

>>> a-=b

>>> print(a)

10

>>> a\*=b

>>> print(a)

200

>>> a/=b

>>> print(a)

10.0

>>> a//=b

>>> print(a)

0.0

**3)Chinning operators:-it** Is used to perform the complex operations between two variables and if any one condition is false total result

Examples are:-

>>> a=10

>>> b=20

>>> c=30

>>> d=10

>>> max=a<b<c<d

>>> print(max)

False

>>> a=10

>>> b=20

>>> c=30

>>> d=40

>>> max=a<b>c>d

>>> print(max)

False

**4)Comparison operators**:-it is used to compare the two values

**Examples are:-**

>>> a=10

>>> b=20

>>> print(a>b)

False

>>> print(a<b)

True

>>> print(a<=b)

True

>>> print(a>=b)

False

**5)Ternary operator**:-by using this operator we can print the output in a single line

>>> a=10

>>> b=20

>>> res=a if a>b else b

>>> print(res)

20

>>> h=20

>>> result='even' if h %2==0 else 'odd'

>>> print(result)

even

>>> h=21

>>> result='even' if h %2==0 else 'odd'

>>> print(result)

Odd

**6)Membership Operators:-**

1)h=[1,2,3,4,5,6]

if 10 in h:

print(True)

else:

print(False)

output:False

2) h=[1,2,3,4,5,6,10]

if 10 in h:

print(True)

else:

print(False)

oputput:-True

**7)Identity Operator**:-it checks the address of the variables

**Examples:-**

1)a=10

>>> b=20

>>> print(id(a))

140718059947208

>>> print(id(b))

140718059947528

>>> print(a is b)

False

2) a=10

>>> b=10

>>> print(id(a))

140718059947208

>>> print(id(b))

140718059947208

>>> print(a is b)

True

**8)Logical operator**:-python supports the logical operators the main objective logic operators for program security purpose

**Examples:-**

>>> a=True

>>> b=False

>>> print(a & b)

False

>>> print(a | b)

True

>>> print(a != b)

True

>>> print(a and b)

False

>>> print(a or b)

True

>>> print(not a)

False

9)Bit Wise Operators:-

>>> a=10

>>> b=6

>>> print(a & b)

2

>>> print (a | b)

14

>>> print (a ^ b)

12

>>> print (~a)

-11

>>> print (a << 2)

40

>>> print (a > 1)

True