

ASSIGNMENT -02

QUESTION -01 :

What are the two values of the Boolean data type? How do you write them?

ANSWER :

The two values of boolean data type is True and False.
We write it as true and false, the true indicates 1, while false indicates 0.

QUESTION -02 :

What are the three different types of Boolean operators?

ANSWER :

The three Boolean operator is and, or and not.

QUESTION -03 :

Make a list of each Boolean operator's truth tables (i.e. every possible combination of Boolean values for the operator and what it evaluate) ?

ANSWER :

True and True is True.

True and False is False.

False and True is False.

False and False is False.

True or True is True.

True or False is True.

False or True is True.

False or False is False.

not True is False.

not False is True.

TRUTH TABLE FOR AND GATE :

A	B	output	
0	0	0	#False and False is False.
0	1	0	#False and True is False.
1	0	0	#True and False is False.

```
1 1 1 #True and True is True.
```

TRUTH TABLE FOR OR GATE :

A	B	output
0	0	0 #False OR False is False.
0	1	1 #False OR True is True.
1	0	1 #True OR False is True.
1	1	1 #True OR True is True.

TRUTH TABLE FOR NOT GATE :

A	output
0	1 # Not True is False.
1	0 # Not False is True.

QUESTION - 04 :

What are the values of the following expressions?

(5 > 4) and (3 == 5)

not (5 > 4)

(5 > 4) or (3 == 5)

not ((5 > 4) or (3 == 5))

(True and True) and (True == False)

(not False) or (not True)

ANSWER :

```
In [4]: print((5 > 4) and (3 == 5))
print(not (5 > 4))
print((5 > 4) or (3 == 5))
print(not ((5 > 4) or (3 == 5)))
print((True and True) and (True == False))
print((not False) or (not True))
```

False

False

True

False

False

True

QUESTION -05 :

What are the six comparison operators?

ANSWER :

1. == : EQUALS TO

2. != : NOT EQUALS TO

3. < : LESS THAN

4. > : GREATER THAN

5. <= : LESS THAN EQUALS TO

6. >= : GREATER THAN EQUALS TO

QUESTION - 06 :

How do you tell the difference between the equal to and assignment operators? Describe a condition and when you would use one.

ANSWER :

1. The equals to (==) operator is used to compare to values and returns the results as true or false.
2. while assignment operator assigns the values to particular variable. we can say that it stores the values in the variable

```
In [5]: a = 10    # both a and b have assignment operator i.e. = which assigns the
        b = 5

        result = (a == b) # this is equals to (==) operator which is checking if a
        print(result)
```

False

it returns false because the a and b is not equal if both the values are equal it returns true.

```
In [6]: a = 10    # both a and b have assignment operator i.e. = which assigns the
        b = 10

        result = (a == b) # this is equals to (==) operator which is checking if a
        print(result)
```

True

QUESTION -07 :

Identify the three blocks in this code:

```
spam = 0
if spam == 10:
    print('eggs')
if spam > 5:
    print('bacon')
else:
    print('ham')
    print('spam')
    print('spam')
```

ANSWER :

```
In [11]: spam = 0
if spam == 10:
    print('eggs')
if spam > 5:
    print('bacon')
else:
    print('ham')
    print('spam')
    print('spam')
```

ham
spam
spam

QUESTION -08 :

Write code that prints Hello if 1 is stored in spam, prints Howdy if 2 is stored in spam, and prints Greetings! if anything else is stored in spam.

ANSWER :

```
In [12]: spam = int(input("Input a no."))
if spam == 1:
    print("Hello")
elif spam == 2:
    print("Howdy")
else:
    print("Greetings!")
```

Input a no.1
Hello

In []: