# Assignment-2

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

**Ans.**

The two values of Boolean data type are True and False (1/0).

**2. What are the three different types of Boolean operators?**

**Ans.**

The three different types of Boolean operators are OR, AND & NOT.

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

**Ans.**

Truth table for **and** operator

|  |  |  |
| --- | --- | --- |
| A | B | A and B |
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

Truth table for **or** operator.

|  |  |  |
| --- | --- | --- |
| A | B | A or B |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 1 |

Truth table for **not** operator

|  |  |
| --- | --- |
| A | Not A |
| 0 | 1 |
| 1 | 0 |

**4. 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)**

**Ans.**

(5 > 4) and (3 == 5) -----------------------------🡪 False

not (5 > 4) ------------------------------------------🡪 False

(5 > 4) or (3 == 5) ---------------------------------🡪 True

not ((5 > 4) or (3 == 5)) --------------------------🡪 False

(True and True) and (True == False) ---------🡪 False

(not False) or (not True) ------------------------🡪 True

**5. What are the six comparison operators?**

**Ans.**

The six comparison operators are given below.

* > ------- greater than
* >= ------ greater than or equal to
* < -------- less than
* <= ------ less than or equal to
* == ------ equal to
* != ------- not equal to

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

**Ans.**

When we want to assign a value to a variable then we use assignment operator i.e ‘ = ’

And when we want to compare a value with others then we’ll use equal to operator i.e ‘ == ‘

**7. 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')**

**Ans.**

------------- Block 1 --------------

spam = 0

if spam == 10:

print('eggs')

------------- Block 2 --------------

if spam > 5:

print('bacon')

------------- Block 3 --------------

else:

print('ham')

print('spam')

print('spam')

**8. 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.**

**Ans.**

Spam = int(input(“ Enter a value “)

If Spam == 1:

Print(“Hello”)

if Spam == 2:

print(“Howdy”)

else:

print(“ Greetings! “)

**9.If your programme is stuck in an endless loop, what keys you’ll press?**

**Ans.**

Ctrl + C

**10. How can you tell the difference between break and continue?**

**Ans.**

## break

* It is used to terminate the enclosing loop like while, do-while, for, or switch statement where it is declared.
* It resumes control over the program until the end of the loop.
* It also helps with the flow of control outside the loop.

## continue

* It helps skip the remaining part of the loop.
* It continues to execute the next iteration.
* It causes early execution of the next iteration of the enclosing loop.

**11. In a for loop, what is the difference between range(10), range(0, 10), and range(0, 10, 1)?**

**Ans.**

In a for loop all the functions above with their given arguments gives the same result. i.e

0 1 2 3 4 5 6 7 8 9

**12. Write a short program that prints the numbers 1 to 10 using a for loop. Then write an equivalent program that prints the numbers 1 to 10 using a while loop.**

**Ans.**

-------- using for loop --------

for i in range(1,11):

print(i)

-------- using while loop --------

i = 1

while i < 11:

print(i)

i +=1

**13. If you had a function named bacon() inside a module named spam, how would you call it after importing spam?**

**Ans.**

After importing spam we can call the function bacon() inside that spam module by the below code.

spam.bacon()