**Assignment - 2**

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

Ans: True and False

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

Ans: AND, OR ,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 evaluate ).

Truth table for OR

|  |  |  |
| --- | --- | --- |
| Input1 | Input2 | Output |
| 0 | 0 | 0 |
| 1 | 0 | 1 |
| 0 | 1 | 1 |
| 1 | 1 | 1 |

Truth table for AND

|  |  |  |
| --- | --- | --- |
| Input1 | Input2 | Output |
| 0 | 0 | 0 |
| 1 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 1 | 1 |

Truth table for NOT

|  |  |
| --- | --- |
| Input | Output |
| 0 | 1 |
| 1 | 0 |

4. What are the values of the following expressions?

(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?

* Less than ( < )
* Less than or equal to ( <= )
* Greater than ( > )
* Greater 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: Assignment operator ( = ), while assigning a value to a variable we use this operator. Example, a = 10

On the other hand ‘equal to’ ( == ) operator is used for comparison like if a == b.

7. Identify the three blocks in this code:

spam = 0

if spam == 10:

{ print('eggs') } # 1st

if spam > 5:

{ print('bacon') } # 2nd

else:

{ print('ham') # 3rd

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: if spam == 1:

Print(“Hello”)

Elif 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 statement break out of the loop and takes the control flow outside of the loop block/body.

While continue statement breaks the current loop and takes the control flow to the next iteration.

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

Ans : range(10) – generates integers from 0 to 9

range(0, 10) – generates integers from 0 – 9

range(0, 10, 1) – also generates integers from 0 – 9

Means technically there is no difference, only difference in writing the code. Because by default 0 is the start point and default step is one.

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:

for i in range(1,11):

print(i)

I = 1

While I < 11:

Print(l)

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

Ans: we can called the function as spam.bacon()