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

**True and False are 2 values of the Boolean data type.**

**Value=True or value=False**

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

**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 ).

|  |  |  |
| --- | --- | --- |
| X | Y | X or Y |
| FALSE | FALSE | FALSE |
| FALSE | TRUE | TRUE |
| TRUE | FALSE | TRUE |
| TRUE | TRUE | TRUE |

|  |  |  |
| --- | --- | --- |
| X | Y | X and Y |
| FALSE | FALSE | FALSE |
| FALSE | TRUE | FALSE |
| TRUE | FALSE | FALSE |
| TRUE | TRUE | TRUE |

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)) : TRUE**

**(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.

**The “=” is an assignment operator is used to assign the value on the right to the variable on the left. The '==' operator checks whether the two given operands are equal or not. If so, it returns true. Otherwise it returns false**

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')

**spam = 0**

**if spam == 10:**

**print('eggs')**

**if spam > 5:**

**print('bacon')**

**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.

spam=1

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?

Press Control +C

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

Break: will eliminate the execution of remaining iterations in a loop

Continue : will eliminate only the current iteration of loop

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

It will give the same result for all the combinations. Result below:-

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.

for i in range(1,11,1):

print(i)

i=1

while (i<=10):

i=i+1

print(i)

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

from spam import \*

bacon()