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

Ans: True and false

If I <5 :

True

Else:

false

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

1. Binary

2. Comparison

3. Logical

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 ).

|  |  |  |
| --- | --- | --- |
| FALSE | FALSE | FALSE |
| FALSE | TRUE | TRUE |
| TRUE | FALSE | TRUE |
| TRUE | TRUE | FALSE |

**OR TRUTH TABLE**

**TRUE =1 AND FALSE =0**

4. What are the values of the following expressions?

(5 > 4) and (3 == 5)= TRUE and false **= 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 | < |
| GREATER THAN | > |
| LESS THAN EQUALTO | <= |
| GREATER THAN 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.

Equal to a==b

When we have to compare two values then we use equal to

Assignment operator ex: a=7 , when we assign value to variable like a holds value of 7

Condition when we use them

a=10

b=10

if a==b:

true

else:

false

7. Identify the three blocks in this code:

spam = 0 assignment operator

if spam == 10: comparison operator

print('eggs')

if spam > 5: comparison operator

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=0

If spam==1:

Print(‘Hello’)

If spam>1:

Print (‘Howdy’)

else:

print(‘Greetings’)

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

CTRL+C

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

**BREAK** : It is using to exist the loop

a = ‘python’

for i in a:

if a == ‘h’

break

print(‘bye’)

**Continue** : It is used when we want to skip some value

for i in range(1,10):

if i%3==0:

continue

print(i)

print(‘bye’)

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

Range(10)--- start 0 to end 9

range(0, 10)- start 0 end value is 9

range(0, 10, 1)-----start=0 , end =9 , gap =1

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.

**1**.

[x for x in range(1,11)]

**2. i=1**

**while i<=10:**

**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?

Module spam

Test module(‘spam)