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

Ans 1:- Two values of the Boolean data type is TRUE or FALSE. We write them in the form of 0 and 1 .

O represent false.

1 represent true.

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

Ans:- the three different types of Boolean operators are AND, 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 evaluate ).

AND

|  |  |  |
| --- | --- | --- |
| X | Y | XY |
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

OR

|  |  |  |
| --- | --- | --- |
| X | Y | X+Y |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 1 |

NOT

|  |  |
| --- | --- |
| x | X’ |
| 0 | 1 |
| 1 | 0 |

4. What are the values of the following expressions?

(5 > 4) and (3 == 5) :- 0

not (5 > 4):- 1

(5 > 4) or (3 == 5):- 1

not ((5 > 4) or (3 == 5)):- 0

(True and True) and (True == False):-0

(not False) or (not True):-1

5. What are the six comparison operators?

Ans :- 1. Less Than(<)

2.Greater than(>)

3.Less than or equal to(<=)

4.Greater than or equal to(>=)

5.Equal to (==)

6.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 6:- The Assigment operator is used to assign a variable on any side . But equal to is used to check whether two operands are equal or not.

Condition:-

X = 20;here you assigning a value to a variable so assignment is use.

X=20

Y=20

So X==Y here we are checking whether x is equal to y or not .

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')

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 = input(“write any whole number”)

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 9:- CTRL + C

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

Ans 10:- break statement is used to exit from the loop.but continue statement is use to jump to next iteration after this statement are skip.

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

There is no difference in all range functions , but if there value change in range (0,10,2) then we have a output with difference of two 0,2,4,6,8.

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 12:- For loop code

for i in range(1,10):

print(i,end=” “);

while loop code

i=1

while i<=10:

print(i,end=” “)

i=i+1

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

Ans13:- spam.bacon()