1. What are the Boolean data type's two values? How do you go about writing them?

Two values of Boolean data types are True and False. To write boolean data type, we have to write the first letter in capital and the remaining letter in small letters. It should be written as,

True

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 ).

|  |  |  |
| --- | --- | --- |
| A | B | AND |
| T | T | T |
| T | F | F |
| F | T | F |
| F | F | F |

|  |  |  |
| --- | --- | --- |
| A | B | OR |
| T | T | T |
| T | F | T |
| F | T | T |
| F | F | F |

|  |  |
| --- | --- |
| A | NOT |
| T | F |
| F | T |

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 different types of reference operators?

6. How do you tell the difference between the equal to and assignment operators?

The equal to operator is used to check whether the data on both sides of the operator are equal or not. If it is equal, True will be returned and if it is not equal, False will be returned. An assignment operator is used to assign values to the variables.

7. Describe a condition and when you would use one.

a= int(input('marks scored '))

if a==100:

print('centum')

In the above condition, **a==100** is using an equal to operator to check whether the input is equal to 100 or not. **a= int(input('marks scored '))** here , assignment operator is used where the value of int(input('marks scored ')) is assigned to the variable a.

8. Recognize the following three blocks in this code:

spam = 0

if spam == 10:

print('eggs')

if spam > 5:

print('bacon')

else:

print('ham')

print('spam')

print('spam')

The result is **spam**

9. Create a programme that prints. If 1 is stored in spam, prints Hello; if 2 is stored in spam, prints Howdy; and if 3 is stored in spam, prints Salutations! if there's something else in spam.

spam = int(input('enter the number '))

if spam == 1:

print('Hello')

elif spam == 2:

print('Howdy')

elif spam == 3:

print('Salutations')

else:

print('something else')

10.If your programme is stuck in an endless loop, what keys can you press?

We can include a **break** statement if a programme is stuck in an endless loop

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

The break statement is used to exit or break the loop and end the loop. The continue statement is used to skip the current iterations and jumps to the next iteration.

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

There is no difference between range(10), range(0,10) and range(0,10,1) in a for loop. All the range values starts at 0 and terminates at 9.

13. Using a for loop, write a short programme that prints the numbers 1 to 10 Then, using a while loop, create an identical programme that prints the numbers 1 to 10.

For loop:

for i in range(1,11):

print(i)

While loop:

a = 1

b = 11

while a<=b:

print(a)

a+=1

14. If you had a bacon() function within a spam module, how would you call it after importing spam?

spam.bacon()