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

ANSWER: TRUE and FALSE are the two values of the Boolean datatype. We write 1 for TRUE and 0 for FALSE.

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

ANSWER: Three different types of Boolean operators are :

1. And 2. OR 3. 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) .

ANSWER: Truth table for AND

|  |  |  |
| --- | --- | --- |
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

Truth table for OR

|  |  |  |
| --- | --- | --- |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 1 |

Truth table for NOT

|  |  |
| --- | --- |
| input | output |
| 0 | 1 |
| 1 | 0 |

4. What are the values of the following expressions?

ANSWER:

(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?

ANSWER: Six comparison operators are : less than(<), less than equal to(<=), greater than(>), 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.

ANSWER: The assignment operator(=) is used to assign the value to the variable while equal to(==) operator is used to check whether the two given operands are equal or not.

FOR Example:

Y=6 (assignment operator)

Z= y (assignment operator)

Z==6 (equal to operator) would return value TRUE.

7. Identify the three blocks in this code:

spam = 0

if spam == 10: #block 1

print('eggs')

if spam > 5: #block 2

print('bacon')

else: #block 3

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.

ANSWER:

spam = int(input("Input a number"))

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?

ANSWER: If program is stuck in endless loop we will press Ctrl+c.

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

ANSWER: The break statement will move the execution outside just after a loop while the continue statement will move the execution to the start of the loop.

For Example:

# use of break

for i in range(10):

if(i==7):

break

print(i)

#use of continue

for i in range(10):

if(i==7):

continue

print(i)

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

ANSWER: The range(10) call ranges from 0 up to (but not including) 10, range(0, 10) tells the loop to start at 0, and range(0, 10, 1) tells the loop to increase the variable by 1 on each iteration.

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.

ANSWER:

#Use of For Loop

print("For Loop")

for i in range(1,11):

print(i)

#Use of While Loop

print("While Loop")

a **=**1

while a **<=** 10:

print(a)

a**+=**1

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

ANSWER: This function can be called with spam.bacon().