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

Ans : True and False (1 or 0)

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

Ans : 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 ).

Ans :

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **condition 1 (e.g., X)** | **condition 2 (e.g., Y)** | **NOT X ( ~ X )** | **X AND Y ( X && Y )** | **X OR Y ( X || Y )** |
| false | false | true | false | false |
| false | true | true | false | true |
| true | false | false | false | true |
| true | true | false | 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)) - False

(True and True) and (True == False) – False

(not False) or (not True) - True

5. What are the six comparison operators?

Ans : We have six of these, including and limited to- less than, greater than, less than or equal to, greater than or equal to, equal to, and 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 : The '=' is the so-called assignment operator and is used to assign the result of the expression on the right side of the operator to the variable on the left side. The '==' is the so-called equality comparison operator and is used to check whether the two expressions on both sides are equal 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')

Ans :

print('eggs')

if spam > 5:

print('bacon')

else:

print('ham')

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()

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?

Ans : Ctrl+C

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

Ans : The primary difference between break and continue statement in C is that the break statement leads to an immediate exit of the innermost switch or enclosing loop. On the other hand, the continue statement begins the next iteration of the while, enclosing for, or do loop

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

Ans: No Difference , Output is

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.

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

Print (i)

While Loop :

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?

Ans : spam.bacon()