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

Ans:True:1 False:0

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

Ans:AND,OR,XOR

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,OR,XOR TRUTH TABLE:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| X | Y | AND | OR | XOR |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 1 | 0 | 1 | 1 |
| 1 | 0 | 0 | 1 | 1 |
| 1 | 1 | 1 | 1 | 0 |

4. What are the values of the following expressions?

Ans: (5 > 4) and (3 == 5) -🡪False(0)

not (5 > 4)-🡪False(0)

(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: ==,>=,<=,!=,<,>

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 “](https://www.geeksforgeeks.org/operators-c-c/)**[=](https://www.geeksforgeeks.org/operators-c-c/)**[” is an](https://www.geeksforgeeks.org/operators-c-c/)[assignment operator](https://www.geeksforgeeks.org/assignment-operators-in-c-c/) is used to assign the value on the right to the variable on the left.

A=10

. The ‘==’ operator checks whether the two given operands are equal or not. If so, it returns true. Otherwise it returns false.

5==5 True

7. Identify the three blocks in this code:

Ans:

spam = 0

if spam == 10:

print('eggs')

if spam > 5:

print('bacon')

else:

print('ham')

print('spam')

print('spam')

Ans :

ham

spam

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=0

if spam==1:

print('Hello')

elif spam==2:

print("Howdy")

else:

print("Greetings!")

O/P:Greetings!

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

Ans: Cntrl+c,break

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

Break: It will resumes the control of the program to the end of loop and made executional flow outside that loop

Continue :It will skip to the next iteration of the loop and executes flow inside the loop again

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

Ans: range(10): It indicates no.of elements in the range i.e(0,10).

range(0,10):starting point-0 ending point-10(exclude upper bound..)

range(0,10,1): It indicates 0-starting point,10-ending point,1-step/jump size.

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)

o/p: 1 2 3 4 5 6 7 8 9 10

i=1

while i<=10:

print(i)

i=i+1

o/p: 1 2 3 4 5 6 7 8 9 10

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

o/p:spam.bacon()