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

Ans: True & False

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

Ans: 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 ).

Ans:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| AND | Output | OR | Output | NOT | Output |
| 0 0 | 0 | 0 0 | 0 | 0 | 1 |
| 0 1 | 0 | 0 1 | 1 | 1 | 0 |
| 1 0 | 0 | 1 0 | 1 |  |  |
| 1 1 | 1 | 1 1 | 1 |  |  |

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: equal to, not equal to, greater than, greater than or equal to, less than, less than or 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: = is an assignment operator, it is used for assigning the value to a variable.

== is a comparison operator, it is used for comparing two values. It returns 1 if both the values are equal otherwise returns 0.

Ex. If we want to assign some value to variable x then we use like x = 10 and when we want to compare to values we use like 5 == 5 or 4==10.

7. Identify the three blocks in this code:

spam = 0

if spam == 10:

print('eggs') block 1

if spam > 5:

print('bacon') block 2

else:

print('ham')

print('spam') block 3

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 = int(input("enter any integer value of spam:"))

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: When the break keyword comes, it terminates the execution of the current loop and passes the control over the next loop or main body, whereas, when continue keyword is encountered, it skips the current iteration and executes the very next iteration in the loop.

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

Ans: No difference i.e. all will give the same values from 0 to 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:

print("print 1 to 10 using while loop")

for x in range(1,11):

print(x)

print("print 1 to 10 using while loop")

x = 1

while x<=10:

print(x)

x = x+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()