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

ANS – 1 & 0 are the two values of Boolean data type. We write them as True = 1 & False = 0.

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

ANS – AND, OR, NOT are three types of Boolean operators.

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 -

|  |  |  |  |
| --- | --- | --- | --- |
| p | q | p and q | p or q |
| 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 0 | 0 | 0 |

4. What are the values of the following expressions?

(5 > 4) and (3 == 5) ANS - False

not (5 > 4) ANS – False

(5 > 4) or (3 == 5) ANS – True

not ((5 > 4) or (3 == 5)) ANS – False

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

(not False) or (not True) ANS – True

5. What are the six comparison operators?

ANS – Comparison operators are < , <= , > , >= , == , !=

6. How do you tell the difference between the equal to and assignment operators? Describe a condition and when you would use one.

ANS – Equal to sign dedicated a particular value to the variable whereas assignment operators assigns the value to the variable for further operations too with reference to previous value/result.

e.g. – x = 5

x += 7 ……. After running it will give result as 12

x -= 11 ……. After running it will give result as 1

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')

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())

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 – Restart the kernel

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

ANS – ‘break’ means to discontinue the code at specific value/output in order to not give error whereas ‘continue’ means to carry forward the previous code with first operation if gets stuck at specific value/output without giving an error

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

ANS – range(10) means data starting from 0 till 9 and this apply same for range(0, 10) whereas range(0, 10, 1) means data starting from 0 till 9 but with a jump of 1 decimal from starting point.

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)

a = 1

b = 10

while a <= b :

print(a)

a = a + 1

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