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

TRUE and FALSE

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

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 ).

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

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?

< , > , <= ,>= ,== ,!=

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

X=6 #here we are assigning 6 to x

X==2 #here we are checking if x’s value is equal to 2

7. Identify the three blocks in this code:

spam = 0

if spam == 10:

print('eggs') #first block

if spam > 5:

print('bacon') #second block

else:

print('ham') #third block

print('spam')

print('spam')

the correct 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.

#print values based on input

spam = input("Please input your value ")

if str(spam)=='1':

print("Hello")

elif str(spam)=='2':

print("Howdy")

else:

print("Greetings!")

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

Ctrl + C buttons on keyboard

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

The break statement ends the loop once executed where as continue statement will continue the loop until the condition is met

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

range(10) #prints the values from 0 till 9

range(0,10) # prints the values from 0 till 9

range(0,10,1) # prints all the value from 0 till 9 as the increment value is 1

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.

for i in range(1,11):

print(i)

#using while loop

i=1

while(i<11):

print(i)

i=i+1

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

spam.bacon()