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

True – 1 and False - 0

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

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 ).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **inp 1** | **inp 2** | **and opt** | **or opt** | **xor opt** |
| 1 | 1 | 1 | 1 | 0 |
| 0 | 1 | 0 | 1 | 1 |
| 1 | 0 | 0 | 1 | 1 |
| 0 | 0 | 0 | 0 | 0 |

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.

Equal to 🡪 a=3  
assignment 🡪 if a == 3 :  
 print (a)

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')

if else statement

o/p:

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.

spam = 0

if spam == 1:

print('Hello')

if spam ==2 :

print('Howdy')

else:

print('Greetings!')

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

Ctrl + c

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

Break 🡪 break the loop of the program when condition is met

Continue 🡪 continues the loop of the program after the part where 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) 🡪 0 to 9   
range(0,10) 🡪 start at 0 end at 9  
range (0,10,1) 🡪 start at 0 end at 9 with interval of 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)

i=1

while (i<11):

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?

spam.bacon()