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

True T

False F

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 ).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| P | q | pandq | p | q | porq |
| T | T | T | T | T | T |
| T | F | F | T | F | T |
| F | T | F | F | T | T |
| F | F | F | F | F | F |

NOT IS REVERSE OF BOTH

4. What are the values of the following expressions?

(5 > 4) and (3 == 5) ------F

not (5 > 4) -----F

(5 > 4) or (3 == 5) ---T

not ((5 > 4) or (3 == 5)) --F

(True and True) and (True == False) --F

(not False) or (not True) --T

5. What are the six comparison **operators**?

less than, greater than, less than or equal to, greater than or equal to, equal to and not equal to operator.

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

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

The ‘ =’ assignment operator assign a value

Ex:a=5

If we print a we will get 5

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

Ex:5==5 it returns TRUE

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')

The three blocks are everything inside the if statement and the lines

print('bacon') and print('ham').  
print('eggs')  
if spam > 5:  
print('bacon')  
else:  
print('ham')  
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.

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?

The break statement will move the execution outside and just after a loop. The continue statement will move the execution to the start of the loop.

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

The range(10) call ranges from 0 up to (but not including) 10, range(0,10) explicitly tells the loop to start at 0 , and range (0,10,1) explicitly tells the loop to incrementthe variable by 1 on each

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 <= 10:  
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()