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

The two Boolean values are True and False .

The first letter should be in uppercase followed by other letters in lowercase

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

AND , OR and NOT

3. Make a list of each Boolean operator&#39;s truth tables (i.e. every possible combination of Boolean

values for the operator and what it evaluate ).

AND

|  |  |  |
| --- | --- | --- |
| 0 | 0 | False |
| 0 | 1 | False |
| 1 | 0 | False |
| 1 | 1 | True |

OR

|  |  |  |
| --- | --- | --- |
| 0 | 0 | False |
| 0 | 1 | True |
| 1 | 0 | True |
| 1 | 1 | True |

|  |  |
| --- | --- |
| 0 | 1 |
| 1 | 0 |

NOT

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?

Greater than >

Less than <

Greater than or equal to >=

Less than or equal to <=

Equal to ==

Not 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.

(=) is a assignment operator, used to assign a value to a variable

(==) is an equal to operator ,used for comparing 2 values

|  |
| --- |
| x = 50  y = 50  if x==y:  print('valid')  else:  print('invalid')  OUTPUT - valid |

7. Identify the three blocks in this code:

|  |
| --- |
| spam = 0  if spam == 10:  print('eggs') the indentations for print statements  if spam > 5:  print('bacon')  else:  print('ham')  print('spam')  print('spam') |

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.

|  |
| --- |
| 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?

CTRL+C

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

Break statement is used to end the current loop

Continue statement helps in moving from current loop to next one

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

All gives the same output

Range(10) gives output from 0 till 9

Range (0,10) gives output till 9 but here the loop starts with 0 if it is range (1,10) then the loop starts with number 1 till 9

Range (0,10,1) here the 1 represents the at what gap the results should be . eg range(0,10,2) gives the result 0,2,4,6,8

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 LOOP**  for a in range(1,11):  print(a) | **WHILE LOOP**  a = 1  while(a<=10):  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?

Spam.bacon()