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

**True, False.—When holds strings**

**0,1 – When used in operations.**

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 ).

AND

|  |  |  |
| --- | --- | --- |
| A | B | A and B |
| TRUE | TRUE | TRUE |
| TRUE | FALSE | FALSE |
| FALSE | TRUE | FALSE |
| FALSE | FALSE | FALSE |

OR

|  |  |  |
| --- | --- | --- |
| A | B | A or B |
| TRUE | TRUE | TRUE |
| TRUE | FALSE | TRUE |
| FALSE | TRUE | TRUE |
| FALSE | FALSE | FALSE |

NOT

|  |  |
| --- | --- |
| A | not A |
| TRUE | FALSE |
| FALSE | TRUE |

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.

**spam = 0**

**Example for assignment operator where the variable spam is assigned 0.**

**If spam ==10: is an equal operator where the variable spam will be checked if it holds value equal to 10.**

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.

**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?

**Break**

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

**Break is for immediate termination of loop. While/Do\_While.**

**Continue skips the rest of loop wherever continue is declared and execute the next iteration.**

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

**Number of Arguments passed determines start, stop, difference/step**

**Range(10)— stops at 9.**

**Range(0,10) – Starts at 0 and stops at 9.**

**Range(0,10,1)- Starts at 0, stops at 9 and 1 is the difference between one and next number. Default is one if not specified.**

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)**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**a=1**

**while a<=10:**

**print(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()**