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** Boolean operation | Result |
| True **and** False | False |
| False **and** True | False |
| False **and** False | False |
| True **and** True | True |

|  |  |
| --- | --- |
| **or** Boolean operation | Result |
| True **or** False | True |
| False **or** True | True |
| False **or** False | False |
| True **or** True | True |

|  |  |
| --- | --- |
| **not** Boolean operation | Result |
| **not** True | False |
| **not** 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.

Equal to :== is used to compare

Assignment:= is used to store/ assign value to a variable

7. Identify the three blocks in this code:

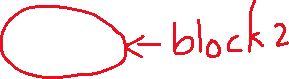
**spam = 0**

**if spam == 10:**



**print('eggs')**

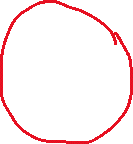
**if spam > 5:**



**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.



**spam=int(input(“print a number “))**



**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** : when **break** is used inside a loop and during the execution if **break** is encounter the program control goes out of the loop

**continue**: is used inside the loop to skip iteration(s) within the loop.

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

**range(10)-**here by default the condition inside the for loop will be itrated 10 times for the values 0 to 9

**range(0,10)-**here the start and end of the range is specifies and again as above the for loop will be iterated 10 time starting from the start value to 9 (end value-1)

**range(0,10,1):** Here the the start value of the range, the end value of the range and number of steps the range values are incremented are given.The for loop iteration will be same as the above two.

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?

**Import spam**

**spam.bacon()**