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

**True & False.**

**Bool() function is used to test if a value is true or false**

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

**AND, OR , AND NOT – are the three different types of Boolean operators**

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 ).

**Operator Example what it means**

**and X and Y True if both are true**

**or X or Y True if at least one is true**

**not not X True only if false**

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?

**== 🡺 Returns true if the two values are exactly equal**

**!= 🡺 Returns true if the two values are not equal**

**> 🡺 Returns true if the value at the operand on the left side of the operator is greater than the value on its right side**

**< 🡺 Returns true if the value at the operand on the right side of the operator is greater than the value on its left side**

**>= 🡺 Returns true if the value at the operand on the left side of the operator is greater than or equal to the value on its right side**

**<= 🡺 Returns true if the value at the operand on the right side of the operator is greater than or equal to the value on its left side**

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

**= 🡺 is used to denote assignment operator**

**( to assign a value to a variable ex: a = 5)**

**== 🡺 is used to denote equal to operator**

**(to compare two variables Ex: a = 4, b = 5 🡺 a == b)**

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())**

**if spam == 1:**

**print('Hello')**

**elif spam == 2:**

**print('Howdy')**

**else:**

**print('greatings!')**

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

**Press CTRL-C to stop a program stuck in an infinite loop.**

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

**In Python, break and continue statements can alter the flow of a normal loop.**

**The break statement is responsible for terminating the loop that uses it.**

**The continue keyword is used to end the current iteration in a for loop (or a while loop), and continues to the next iteration.**

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

**All three are same. They will give same output**

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 = 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()**