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, 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 table OR Table NOT |
| T T T T T T T F |
| T F F F T T F T |
| F T F T F T |
| F F F F F F |

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.

**The equal to(==) operator is used to check the equality of two expressions whether they are equal or not whereas assignment operator(=) assigns the value to the variables. The difference in both operators can be looked with the following example:**

**A = 5 – assignment operator**

**(3 == 1)- equal to operator**

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 as follows:**

**1. if spam == 10:**

**print('eggs')**

**2. if spam > 5:**

**print('bacon')**

**3. 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("Give me 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?

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

**A break statement is used to terminate a loop at a specific given condition whereas continue statement intends to go for the next iteration in the loop.**

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

**As the syntax of the range function is range(start, stop, step). Using for loop, there is no difference in the given three scenarios as they all are giving the output of numbers from 0 to 9.**

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+=1**

13. If you had a function named bacon() inside a module named spam, how would you call it after importing spam?

**Import spam from bacon**

**Spam.bacon()**