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

**True and False are two Boolean data type, we represent True by 1 and False by 0 values**

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

**|| -> logical OR, && -> logical AND, !-> logical 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 ).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **A** | **B** | **A&&B** | **A||B** | **!A** |
| **True** | **True** | **True** | **True** | **False** |
| **True** | **False** | **False** | **True** | **False** |
| **False** | **True** | **False** | **True** | **True** |
| **False** | **False** | **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?

|  |  |
| --- | --- |
| **Operator** | **Name** |
| **==** | **Equal to** |
| **!=** | **Not equal to** |
| **<** | **Less than** |
| **>** | **Greater than** |
| **<=** | **Less than equal to** |
| **>=** | **Greater than 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.

**In equal to we use two equal sign but in assignment operators we use single equal sign for example**

**A=7 here it will work as an assignment operator**

**6==6 here it will work as a equal to**

7. Identify the three blocks in this code:

spam = 0

if spam == 10: **first**

print('eggs')

if spam > 5: **second**

print('bacon')

else: **third**

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?

**Ctrl + c**

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

**In break statement loop will get exit but in continue loop will go 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 there is no difference in between all forms of range in for loop**

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)**

**while i in range(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?

**spam.bacon()**