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

**Answer:**

1. **True**
2. **False**

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

**Answer:**

1. **and**
2. **or**
3. **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 ).

**Answer:**

1. **Logical ‘and’:**

|  |  |  |
| --- | --- | --- |
| **A** | **B** | **A and B** |
| **True** | **True** | **True** |
| **True** | **False** | **False** |
| **False** | **True** | **False** |
| **False** | **False** | **False** |

1. **Logical ‘or’:**

|  |  |  |
| --- | --- | --- |
| **A** | **B** | **A or B** |
| **True** | **True** | **True** |
| **True** | **False** | **True** |
| **False** | **True** | **True** |
| **False** | **False** | **False** |

1. **Logical ‘not’**

|  |  |
| --- | --- |
| **A** | **not A** |
| **True** | **False** |
| **False** | **True** |

4. What are the values of the following expressions?

(5 > 4) and (3 == 5)

not (5 > 4)

(5 > 4) or (3 == 5)

not ((5 > 4) or (3 == 5))

(True and True) and (True == False)

(not False) or (not True)

**Answer:**

1. (5 > 4) and (3 == 5)

**False**

1. not (5 > 4)

**Fals**e

1. (5 > 4) or (3 == 5)

**True**

1. not ((5 > 4) or (3 == 5))

**False**

1. (True and True) and (True == False)

**False**

1. (not False) or (not True)

**True**

5. What are the six comparison operators?

**Answer:**

1. **==**
2. **!=**
3. **>=**
4. **<=**
5. **>**
6. **<**

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

**Answer:**

**X = 10 ---- > assignment operator**

**Y = 20 ---- > assignment operator**

**If X == Y: ---- > comparison operator**

**print(‘both are same’)**

**else:**

**print(‘both are not same’)**

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')

**Answer:**

**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.

Answer:

**Spam = input(“please enter the spam value : ”)**

**If spam == 1:**

**print(“Hello”)**

**elif spam == 2:**

**print(“Howdy”)**

**else:**

**print(“none of them matched”)**

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

**Answer:**

**CNTRL+C**

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

**Answer:**

**break is used to stop the loop iteration and continue is used to skip the current iteration of the loop.**

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

**Answer:**

**3 of them will works same.**

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.

**Answer:**

1. **for i in range(1,11):**

**print(i)**

1. **count = 1**

**while count <= 10:**

**print(count)**

**count = count + 1**

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

**Answer:**

**from spam import bacon**