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

**Answer:**

**True**

**False**

**using capital T and F, with the rest of the word in lowercase**

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

**Answer:**

**and**

**not**

**or**

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. **True and True is True.**
2. **True and False is False.**
3. **False and True is False.**
4. **False and False is False.**
5. **True or True is True.**
6. **True or False is True.**
7. **False or True is True.**
8. **False or False is False.**
9. **not True is False.**
10. **not False is 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. **False**
2. **False**
3. **True**
4. **False**
5. **False**
6. **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:**

**== is the equal to operator that compares two values and evaluates to a Boolean, while = is the assignment operator that stores a value in 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')

**Answer:**

**The three blocks are everything inside the if statement and the lines print('bacon') and print('ham').**

**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 = int(input("enter input :"))**

**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?

**Answer:**

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

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

**Answer:**

1. **The break statement will move the execution outside and just after a loop.**
2. **The continue statement will move the execution to the start of the loop.**

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

**Answer:**

**They all do the same thing.**

1. **The range(10) call ranges from 0 up to (but not including) 10.**
2. **range(0, 10) explicitly tells the loop to start at 0**
3. **range(0, 10, 1) explicitly tells the loop to increase the variable by 1 on each iteration.**

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. **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?

**Answer:**

**spam.bacon()**