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

**Answer:** Boolean data type two values are: True and False and write as True and False

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

**Answer:** 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 ).

**Answer: OR Operator:**

|  |  |  |
| --- | --- | --- |
| X | Y | O/P |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 1 |

**AND Operator:**

|  |  |  |
| --- | --- | --- |
| X | Y | O/P |
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

**NOT Operator**

|  |  |
| --- | --- |
| **X** | **O/P** |
| 0 | 1 |
| 1 | 0 |

4. What are the values of the following expressions?

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

**Answer:** False

not (5 > 4)

**Answer:** False

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

**Answer:** True

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

**Answer:** False

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

**Answer:** False

(not False) or (not True)

**Answer:** True

5. What are the six comparison operators?

**Answer:** Equal to (==), Greater than (>), less than(<), not equal to (!=), greater than or equal to (>=), less than or 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.

**Answer:** Equal to (==) is used to compare the value of two objects and assignment operator is use to assigning value to variable.

Eg: Equal to (==) use to compare values

(=) operator is use to assign value to 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 in the code are inside if-else statement

print(“eggs”), print(“bacon”), print(“ham”)

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:**

**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: Ctrl+C**

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

**Answer: Break**  is use to terminate the loop and

**Continue:** is use to pass the control to next iteration or next condition

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

**Answer:** All the three function gives same output

range(10) will start from 0 to 10(but not count the upper bound) with default step size 1

range(0,10): we are defining from 0 to 10(but not count the upper bound)

range(0,10,1): we are defining from 0 to 10(but not count the upper bound) with step size 1

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:**

Using for loop:

for i in range(1,11):

print(i)

Using while loop:

i= 1

while i<=10:

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?

**Answer:** spam.bacon()