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

ANS: **True, False**

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

ANS: **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 ).

ANS: not

|  |  |
| --- | --- |
| Input | output |
| 0 | 1 |
| 1 | 0 |

AND

|  |  |  |
| --- | --- | --- |
| A | B | output |
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

OR

|  |  |  |
| --- | --- | --- |
| A | B | oUTPUT |
| 0 | 0 | 0 |
| 1 | 0 | 1 |
| 0 | 1 | 1 |
| 1 | 1 | 1 |

Note: 0= False, 1= 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?

**>, <, ==, !=, >=, <=**

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

**Assignment: =, equal: ==**

**When we want to assign a value to variable then we are using assignment operator: = eg: name = “Varun”**

**When we want to check equality of two variable/ value then we are using equal operaot:== eg. If(“Navin” == “Navin”)**

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')

**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.

ANS:

**spam = 1**

**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?

ANS: **if we want to break a loop when certain conditions are met then break is used and when we just want to continue loop when certain condition met continue is used.**

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

**All three are 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.

**i = 1**

**while(i < 11):**

**print(i)**

**i+=1**

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

**print(i)**

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

**Spam.bacon()**