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

True & False

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

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 ).**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **condition 1 (e.g., X)** | **condition 2 (e.g., Y)** | **NOT X ( ~ X )** | **X AND Y ( X && Y )** | **X OR Y ( X || Y )** |
| false | false | true | false | false |
| false | true | true | false | true |
| true | false | false | false | true |
| true | true | false | true | 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 operator = , used to assign value to variable e.g.- a=10

Equal to == , used to compare the 2 value e.g.- if Month==’January’:pass

**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')**

**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.**

while True:

  spam = 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?**

We can press **Ctrl + C** .

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

The continue statement is used to skip the rest of the code inside a loop for the current iteration only. Loop does not terminate but continues on with the next iteration.

The break statement terminates the loop containing it. Control of the program flows to the statement immediately after the body of the loop.

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

range(10) = range(0, 10) = defines the range as between 0 to 10.

range(0, 10, 1) defines the range as between 0 and 10 with steps of 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.**

for i in range(1,11):

  print(i , end=" ")

i=len(range(1,11))+1

k=1

while (k<i):

  print(k, end=" ")

  k+=1

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

Import spam

spam.bacon()