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

**A)** True and False, first letter of both True and False must be capital letters remaining all are small letters

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

**A)** And , Or ,Not are the three Boolean operators

**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 ).**

**A)**

|  |  |  |  |
| --- | --- | --- | --- |
| **AND** | True | True | **True** |
| False | True | **False** |
| **OR** | True | False | **True** |
| False | True | **True** |
| **NOT** | 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)**

**A)** (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

**5. What are the six comparison operators?**

**A)** Less than(<), Greater than(>), Equal to(==) , Less than equal to (<=),Greater than equal to(>=) ,

Not 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.**

**A)** == is the equals to operator that compares two values and give Boolean values, while = is the assignment operator that stores a value in variable.

a =10 here the value 10 is assigned to variable ‘a’.

if a == 10 : here it compares the two values

print(“true”)

**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')**

1. The three blocks are everything inside the if statement and the lines print('bacon') and print('ham').  
     
   print('eggs')  
   if spam > 5:  
   print('bacon')  
   else:  
   print('ham')  
   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.**

**A)** 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?**

**A)** press Ctrl+C to stop a programme to stuck in infinite loop

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

**A)** The break statement will stop the execution of the loop, while 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)?**

**A)** They all do the same thing. The range(10) call range from 0 to 10(excludes the upper bound) , range(0,10) explicitly tells the loop to start at 0, 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.**

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

Print(i)

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?**

**A)** This function can be called with spam.bacon().