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

Ans: Two values of Boolean data types are: True and False.

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

Ans: AND, NOT and OR are three different types of 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 ).**

|  |  |  |  |
| --- | --- | --- | --- |
| Boolean Value 1 | Boolean Operator | Boolean Value 2 | Result |
| True | and | True | True |
| True | and | False | False |
| False | and | True | False |
| False | and | False | False |
| True | or | True | True |
| True | or | False | True |
| False | or | True | True |
| False | or | False | False |
| not(True) |  |  | False |
| not(False) |  |  | 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?**

Ans: == 🡪 Equal to operator

!= 🡪 Not Equal to operator

> 🡪 Greater than operator

< 🡪 Less than operator

>= 🡪 Greater Than equal to operator

<= 🡪 Less than equal to operator

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

Ans: Equal to operator will have double ‘==’ sign and assignment operators will have single ‘=’ sign. Equal to operator is being used to compare the value between two variables and assignment operator is used to assign values into a variable.

**7. Identify the three blocks in this code:**

spam = 0

if spam == 10: 🡪 Block 1

print('eggs')

if spam > 5: 🡪 Block 2

print('bacon')

else: 🡪 Block 3

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.**

spam = 3

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?**

Ans: Ctrl + C

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

Ans: Break keyword is used to terminate the loop operation, where continue keyword is used to skip the rest of the part of the loop for that particular iteration only.

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

Ans: range(10) 🡪 Creates a sequence of number from 0 to 9

range(0, 10) 🡪 Create a sequence of numbers from 0 to 9

range(, 10 ,1) 🡪 Create a sequence of numbers from 0 to 9 with incremental value 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.**

Ans: 1-10 using for loop:

for i in range(1,11):

print(i)

1-10 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?**

Ans: import spam

spam.bacon()