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

Ans: The two values of Boolean data types are true and false. We write them as True and False.

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

Ans: The three different types of Boolean operators are AND, OR and 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: **Truth Table of AND**

|  |  |  |
| --- | --- | --- |
| A | B | R |
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

**Truth Table of OR**

|  |  |  |
| --- | --- | --- |
| A | B | R |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 1 |

**Truth Table of NOT**

|  |  |
| --- | --- |
| A | R |
| 0 | 1 |
| 1 | 0 |

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: <, >, <=, >=,== , !=

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

Ans: For assignment, we use single equal to symbol. Example: a=10. For assigning a variable we use single variable.

For equal, we use double equal to symbol. Example: a==10. For checking whether particular variable is equal to a value or not.

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')

Ans:

ham

spam

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 = input(“Enter something”)

if int(spam) == 1:

print(“Hello”)

elif int(spam) == 2:

print(“Howdy”)

else:

print(“Greeting! If anything else is stored in spam”)

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 terminates the loop.

continue jumps to the next iteration.

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

Ans: range(10) – It iterators from 0 to 9.

range(0,10) – We will be specifying the start and end of the range.

range(0, 10, 1) – We will be specifying the start, end and step size in the range function.

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: for i in range(1, 11):

print(i)

count = 0

while count != 10:

count += 1

print(count)

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

Ans: import spam

s = spam.bacon()

print(s)