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

There are two values of Boolean Data type and that are 1) True 2) False

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

The three different types of Boolean operators are 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).

OR Operator:

|  |  |  |
| --- | --- | --- |
| A | B | A or B |
| TRUE | TRUE | TRUE |
| TRUE | FALSE | TRUE |
| FALSE | TRUE | TRUE |
| FALSE | FALSE | FALSE |

AND Operator:

|  |  |  |
| --- | --- | --- |
| A | B | A and B |
| TRUE | TRUE | TRUE |
| TRUE | FALSE | FALSE |
| FALSE | TRUE | FALSE |
| FALSE | FALSE | FALSE |

NOT Operator:

|  |  |
| --- | --- |
| A | Not A |
| TRUE | FALSE |
| 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?

The six comparison operators are :

|  |  |
| --- | --- |
| > | Greater than |
| >= | Greater than equal to |
| < | Less than |
| <= | Less than equal to |
| == | 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.

The difference between an assignment operation and comparison operator(==) is actually on the number of equal to sign that is being used.

Ex – if a = 5 , it mean that a is being assigned a value of 5 .

If a == 5 , it mean that a is checked whether it is equal to 5 or not.

7. Identify the three blocks in this code:

spam = 0

if spam == 10:

print('eggs')

# first block ends here

if spam > 5:

print('bacon')

#second block ends here

else:

print('ham')

print('spam')

print('spam')

#3rd block ends here

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 any number : ")

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?

If the program stucks in an endless loop, I would press Interrupt

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

Break normally stops the execution and push the control to the next line out of the loop whereas continue transfer the control to the beginning of the loop.

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

The all three range function inside a for loop would function in a same way as by default the counter starts from 0 and it would reach till 9 as 10 being the end and auto-increment would be1.

The only difference is in the number of parameters inside 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.

**Using FOR LOOP:**

for i in range(10):

print(i)

**Using WHILE LOOP:**

i=0

while i < 10:

print(i)

i +=1

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

spam.bacon()