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

Boolean datatype can have two values True, False.

For example

Var1 = True

Var2 = False

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

Three different types of Boolean operators are AND, OR, NOT

A = 5

B = 6

A > 4 AND B > 5 returns True

A > 4 OR B > 10 returns True

Not (a >10) returns True

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 operation truth table

Input 1 input 2 output

0 0 0

0 1 1

1 0 1

1 1 1

AND operation truth table

Input 1 input 2 output

0 0 0

0 1 0

1 0 0

1 1 1

Not operation truth table

Input ouput

1. 1
2. 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?

Greater than >

Greater than or equal to >=

Less than <

Less than or 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.

Equal to (==) used to check both values are equal

Assignment operator(=) is used to assign a value to the variable

eg

A = 5 (it assigns the value 5 to variable A)

A == 5 (it check if the value of A is equal to 5)

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')

Answer :

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.

spam = int(input("enter the value of spam"))

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?

Control + C

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

Break statement is used to terminate the loop in which it is present. After the break statement, the control will pass to the statements that are present after the break statement,( if there any statements after the break )

Continue statement is opposite to the break statement. It continues the execution of statements.

Lets say, in above example, I want to continue the execution futher without printing r,

Eg str1 = “hello world”

For i in str1:

If I ==’r’

Continue

Else:

print(i)

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

There is no difference. All 3 range(10), range(0,10) and range(0,10,1) gives same output

0

1

2

3

4

5

6

7

8

9

Range default value starts with 0 and increases by 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.

for i in range(11):

if (i !=0):

print(i)

output

1

2

3

4

5

6

7

8

9

10

i = 1

while i <= 10:

print(i)

i = i + 1

output

1

2

3

4

5

6

7

8

9

10

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

Spam.bacon()