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

2. What are the 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 ).

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)

5. What are the six comparison operators?

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

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')

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.

9.If your programme is stuck in an endless loop, what keys you’ll press?

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

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

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

Answers:

1. The two values of Boolean data type are:

0 & 1

True -1

False- 0

1. Three different types of Boolean operators are:

and

or

not

1. And Truth table

|  |  |  |
| --- | --- | --- |
| X | Y | X and Y |
| False | False | False |
| False | True | False |
| True | False | False |
| True | True | True |

OR Truth table

|  |  |  |
| --- | --- | --- |
| X | Y | X or Y |
| False | False | False |
| False | True | True |
| True | False | True |
| True | True | True |

not truth table

|  |  |
| --- | --- |
| X | Not x |
| False | True |
| True | False |

1. Values of 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

1. Six comparison operators are:

> Greater than

< Lesser than

>= Greater than or equal to

<= Lesser than equal to

== Equal to

!= Not equal to

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

When two equal signs are used it is equal to operator

When one equal sign is used it is an assignment operator

To compare two values we use == “equal to” operator

Eg 5==5.

To assign a value to variable we use assignment operator

Eg a=10



spam = 0

if spam == 10:

print('eggs') # indent increased, block 1

if spam > 5: # still block1

print('bacon') # still block 1, indent increased, block 2 inside block 1

else: # still block 1, indent decreased, block 2 ended in line above

print('ham') # still block 1, indent increased, block 3 inside block A

print('spam') # still block 1, indent decreased, block 3 ended in line above

print('spam') # indent decreased, block 1 ended in line above

1. 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?

Ctrl + C

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

‘Break’ in Python is a loop control statement. It terminates the current loop.

The ‘continue’ keyword is used to end the current iteration in a for loop (or a while loop), and continues to the next iteration.

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

There is no difference between range(10),range(0,10),range(0,10,1)

range (10) – range(end) end value is given start value is 0 by default

range(0,10) – Here both start and end value is initialized

range(0,10,1) here start, end & step value is assigned by default step value is 1e

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 num in range(1,11):

print(num)

num=1

while(num<=10):

print(num)

num+=1

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

Import spam

Spam.bacon()