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

Answer: - Boolean values: True, False

To use Boolean we use bool.-for example a=boo (input ())

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

Answer: - 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 evaluates).

|  |  |  |
| --- | --- | --- |
| AND OPERATOR. |  |  |
| VARIABLE \_A | VARIABLE\_2 | OUTPUT |
| True | True | True |
| True | False | False |
| False | False | False |
| False | True | False |

|  |  |  |
| --- | --- | --- |
| OR OPERATOR |  |  |
| VARIABLE\_A | VARIABLE\_2 | OUTPUT |
| True | False | True |
| True | True | True |
| False | True | True |
| False | False | False |

|  |  |
| --- | --- |
| NOT OPERATOR |  |
| VARIABLE\_1 | OUTPUT |
| True | False |
| False | True |

4. What are the values of the following expressions?

(5 > 4) and (3 == 5)

True and False= False

not (5 > 4)

False

(5 > 4) or (3 == 5)

True or False=True

not ((5 > 4) or (3 == 5))

False or False=False

(True and True) and (True == False)

True and False=False

(not False) or (not True)

True or False=True

5. What are the six comparison operators?

|  |  |
| --- | --- |
| OPERATORS | |
| EQUAL TO | == |
| NOT EQUAL TO | != |
| GREATER THEN OR EQUAL TO | >= |
| LESS THAN OR EQUAL TO | <= |
| GREATER THEN | < |
| LESS THEN | > |

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

Answer: - when we use single equal to (=) then we are assignment operator, we are assigning the value to correspondence to that variable.

X=5

B=5

We are assigning the value to the variable.

But

When we are using double equal too (==) then we are using comparison operator to compare the value of two variables.

X==B

We are comparing the value of the variable that is why this is comparison variable.

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')

|  |  |
| --- | --- |
| **Block\_1** | print('eggs') |
| **Block\_2** | print('bacon') |
| **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=1 or 2

number =int (input ())

if number==1:

  print('hello')

elif number==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: - is used to break the block.

Continue: - is used start the iteration form the first object.

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

By definition range has three values start, end and step size. By default start is fixed zero and step size is fixed as one.

In range (10) it will print 0 to 10.

In range (0, 10) it will print from 0 to 10,

In range (0, 10, 1) it will also print 0 to 10.

As all the above three will print the same value.

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 loop

for x in  range(1,11):

  print (x)

while loop

x=1

while x < 11:

  print (x)

  x=x+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 ()