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

Ans: Two values are - True and False. We write them as first letters in capital and rest of lower case that is True, False.

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

Ans: 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 ).

|  |  |
| --- | --- |
| True and True | True |
| True and False | False |
| False and True | False |
| False and False | False |
| True or True | True |
| True or False | True |
| False or True | True |
| False or False | False |
| not True | False |
| not 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?

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: == is used to compare two values and

= is used to store a value in a variable

Example: a==b it is used to check if the a is equal to b or if a string is same a string b.

a=3 is assign the variable a with value of 3.

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: The 3 blocks in the code is the if statements and the else one :

1) if spam == 10:

print('eggs')

2) if spam > 5:

print('bacon')

3) 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.

Ans:

spam = int(input('Input a number for 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?

Ans: Press CNTRL-C

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

Ans: Break statement will move the execution outside just after the loop.

Continue statement will move the execution to the start of the loop.

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

Ans: range(10) calls the inbuild range function to start count from 0 up to 10 (but 10 is not included),

range(0,10) calls the inbuild range function and tells it explicitly to start from 0 till 10 (but 10 is not included),

range(0,10,1) calls the inbuild range function and tells it explicitly to start from 0 till 10 (but 10 is not included) and also tells to explicitly increment the count by 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.

Ans:

For loop :

for a in range(1,11):

print(a)

While loop :

a=1;

while a<= 10:

print(a)

a=a+1

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

Ans: spam.bacon()