Assignment-2

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

Ans: Two values of the Boolean data type are: True and False. It can be write, using capital T and F with the rest of the word in lowercase.

For Eg., a= True

b=False

print(a)

print(b)

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

Ans: There are 3 basic boolean operators which are: AND,OR and 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 ).

Ans:

1)NOT

|  |  |
| --- | --- |
| x | X’ |
| 0 | 1 |
| 1 | 0 |

2)AND

|  |  |  |
| --- | --- | --- |
| x | y | xy |
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

3) OR

|  |  |  |
| --- | --- | --- |
| x | y | x+y |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 1 |

4. What are the values of the following expressions?

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

Ans: True+ False= False=0

not (5 > 4)

Ans: not True= False=0

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

Ans: True=1

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

Ans: False or False=False=0

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

Ans: True and False= False=0

(not False) or (not True)

Ans: True or False=True=1

5. What are the six comparison operators?

Ans: The six comparison operators are as under:

1. Less than (<) operator
2. Greater than (>) operator
3. Less than or Equal to(<=) operator
4. Equal to or Greater than(>=) operator
5. Equal to (==) operator
6. Not equal to(!=) operator

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

Ans: Assignment operator is used to assign the values to the variable. While the equal to operator is used to compare the values of both the variables and the result is true or false.

For E.g., int a=10; assigns 10 to variable a, if (a==10) checks if variable a is equal to 10 or not.

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 three blocks are everything inside the if statement and the lines

Print(‘bacon’) and print (‘ham’). Every time you increase the indentation of a line, and ends just before the corresponding unindent, a new block begins.

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= 0

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: Ctrl+C

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

execution of the current loop and passes the control over the next loop, while when continue keyword is used it skips the current iteration and executes the very next iteration in the loop.

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

Ans: The difference is that range (10) defaults to 0 as a starting value, however it is possible to specify the starting value by adding a parameter and it is the values of 0 to 5. The range(0,10) defaults to increment the sequence by 1 and it means values from 0 to 10 but not including 10. The range (0,10,1) specify the increment value by adding a third parameter. It values like (0,1,2,3,4,5,6,7,8,9)

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:(1) for i in range(1,11):

Print(i)

(2) n=1

While(n<=10):

print(n)

n=n+1

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

Ans: This function can be called with spam.bacon().