**Name - Aditya Amin Assignment-2**

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

Its True and False we write it something like this:

10>2 , it will return True as a output

10==2, it will return False as a output

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

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 ).

AND :

T T = T

T F = F

F T = F

F F = F

OR :

T T = T

T F = T

F T = T

F F = F

NOT :

T = F

F = T

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?

Less Than (<), Greater Than (>), Less Than Equals To (<=), Greater Than Equals 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.

For Equal to we use (==) when we want to write some condition where we are trying to say something is equal to something, and for Assignment we use (=), where we actually assign some value to a variable.

A = 10 Here we have assigned value 10 to variable A.

A == 10 Here we are writing 10 is equal to A.

For making something equal first we always need to assign, and hence if we write both statement respectively:

A=10

A==10

It will return us TRUE, because we have assigned 10 to variable A and we are saying that A is equals to 10.

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')

Here we have three blocks, IF, IF and ELSE, as we have already initialized spam variable with 0, first IF condition became False 0==10 , then second if condition will be again false as 0 > 5 is again false. So it will print else condition in output.

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 = 3 // You can assign any number here output will come accordingly.

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 statement used to stop the current loop completely when it meets some particular condition,

Ex:

A = “Aditya”

for letter in A:

print(letter)

if letter == “d”:

break

print (“out of for loop”)

It will print till d and then exit.

whereas continue statement use to skip the particular loop where we have given a condition and restart it again. Ex.

for num in range (1,5)

if num == 2:

continue

else:

print(num)

It will print 1,3,4 skipping value 2.

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

In a For Loop range 10 means we ar providing only ending point of a range, it will print from 0 to 9,

range(0,10) means now we have given starting and an ending point, it will print from 0 to 9.

range(0,10,1) means starting point, ending point and steps to skip still it will print from 0 to 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.

For Loop:

For I in range (1, 11)

Print(i)

While Loop :

i = 1

while I <= 10:

print(i)

i = i+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()