Chapter -2

Practice Questions

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

Boolean data type has two values :-True and False

eg- a=True

b=False

2.. What are the three Boolean operators?

The three boolean operators are and,or,not

3. Write out the truth tables of each Boolean operator (that is, every possible combination of Boolean values for the operator and what they evaluate to).

def AND(p,q):

return p and q

print("p q p and q")

for p in [True,False]:

for q in [True,False]:

a= p and q

print(p,q,a)

Output

p q p and q

True True True

True False False

False True False

False False False

def NOT(q):

return not q

print("q not q")

for q in [True,False]:

a= not q

print(q,a)

Output

q not q

True False

False True

def OR(p,q):

return p or q

print("p q p or q")

for p in [True,False]:

for q in [True,False]:

a= p or q

print(p ,q ,a)

q p or q

True True True

True False True

False True True ‘

False False False

4.What do the following expressions evaluate to?

(5 > 4) and (3 == 5) --False(as 3 is not equal to 5)  
not (5 > 4)  -False(the negation of truth value)  
(5 > 4) or (3 == 5)-(True as if one value is true ,It will print True)  
not ((5 > 4) or (3 == 5))-False(The negation of true as one condition is true)  
(True and True) and (True == False)-False(Both the conditions are not satisfying)  
(not False) or (not True)-True(one condition is satisfying)

1. What are the six comparison operators?

6.What is the difference between the equal to operator and the assignment operator?

* The == operator (equal to) asks whether two values are the same as each other.
* The = operator (assignment) puts the value on the right into the variable on the left.

7. Explain what a condition is and where you would use one.

8.Identify the three blocks in this code:

spam = 0  
if spam == 10:  
    print('eggs') ----*first block*  
    if spam > 5:  
        print('bacon')-----*second block*  
    else:  
        print('ham')-----*third block*  
    print('spam')  
print('spam')

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=int(input())

if spam==1:

print("Hello")

elif spam==2:

print("Howdy")

else:

print("Greetings!")

11.What is the difference between break and continue?

If the execution reaches a break statement, it immediately exits the while loop’s clause

When the program execution reaches a continue statement, the program execution immediately jumps back to the start of the loop and reevaluates the loop’s condition.

12. What is the difference between range(10), range(0, 10), and range(0, 10, 1) in a forloop?

range(10)-till 10

range(0,10)-from 0 to 10

range(0,10,1)-

13.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 i in range(1,11):

print(i)

Output

1

2

3

4

5

6

7

8

9

10

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