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

Ans - The Python Boolean type has only two possible values using capital T and F

True.

False.

using capital T and F.

Example -

a=True

b=False

print(a)

print(b)

output –

True

False

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

Ans - 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 -

True and True is True.

True and False is False.

False and True is False.

False and False is False.

True or True is True.

True or False is True.

False or True is True.

False or False is False.

not True is False.

not False is True.

Truth Table for AND  
A B output  
0 0 0  
0 1 0  
1 0 0  
1 1 1  
Truth Table for OR  
A B output  
0 0 0  
0 1 1  
1 0 1  
1 1 1  
Truth Table for NOT  
A output  
0 1  
1 0

4. What are the values of the following expressions?

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

not (5 > 4)

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

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

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

(not False) or (not True)

Ans - False

False

True

False

False

True

5. What are the six comparison operators?

Ans - ==, !=, <, >, <=, and >=

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

*Ans - # Equal To Operator*

if(1==2):

print("True")

else:

print("False")

*#Assignment operator*

c=5 *#we have used assignment operator(=) to assign value of c which is 1*

print("c =",c)

output -

False

c 5

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 –

spam = 0

if spam == 10:

print('eggs') *#Block 1*

if spam > 5:

print('bacon') *#Block 2*

else:

print('ham') *#Block 3*

print('spam')

print('spam')

output –

ham

spam

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("Enter a Number"))

if spam ==1:

print("Hello")

elif spam==2:

print("Howdy")

else:

print("Greetings")

output –

Enter a Number1

Hello

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?

Ans - The Python break statement stops the loop in which the statement is placed. A Python continue statement skips a single iteration in a loop.

*# use of break*

for i in range(10):

if(i==7):

break

print(i)

print('Breaked')

*#use of continue*

for i in range(10):

if(i==7):

continue

print(i)

output –

0

1

2

3

4

5

6

Breaked

0

1

2

3

4

5

6

8

9

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

for i in range(10):

print(i)

print("aaa")

for i in range(0,10):

print(i)

print("bbb")

for i in range(0,10,1):

print(i)

output –

0

1

2

3

4

5

6

7

8

9

aaa

0

1

2

3

4

5

6

7

8

9

bbb

0

1

2

3

4

5

6

7

8

9

The range(10) call ranges from 0 up to (but not including) 10, range(0, 10) tells the loop to start at 0, and range(0, 10, 1) tells the loop to increase the variable by 1 on each iteration.

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.

#Use of For Loop

for i in range(1,11):

print(i)

#Use of While Loop

print("While Loop")

i = 1

while(i<=10):

print(i)

i += 1

output =

1

2

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10

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

spam.bacon().