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

True and False

a=True

b=False

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

The AND operator (&& or "and")

The OR operator (|| or "or")

The NOT operator (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).

|  |  |  |
| --- | --- | --- |
| A | B | A and B |
| FALSE | FALSE | FALSE |
| FALSE | TRUE | FALSE |
| TRUE | FALSE | FALSE |
| TRUE | TRUE | TRUE |
|  |  |  |
| A | B | A or B |
| FALSE | FALSE | FALSE |
| FALSE | TRUE | TRUE |
| TRUE | FALSE | TRUE |
| TRUE | TRUE | TRUE |
|  |  |  |
|  |  |  |
| A | not A |  |
| FALSE | TRUE |  |
| TRUE | FALSE |  |

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?

> - Greater than operator

>= - Greater than and equal to operator

< - Less than operator

<= - Less than and equal to operator

== - Equal to operator

!= - 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.**

Equal to operator:

A==B

Assignment operator:

A=B

Condition:

A="mukhil"

B=A

if A==B:

print("a is equal to b")

else:

print("a is not equal to b")

7. Identify the three blocks in this code:

spam = 0 // 1st block

if spam == 10: // 2nd Block

print('eggs')

if spam > 5: // 3rd Block

print('bacon')

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.

Print hello if spam ==1

Howdy if spam==2

Print Greetings is Spam==

Solution:

spam=int(input("enter any number"))

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 Stmt:

for i in range(10):

print("break stmt")

break

print("it breaks the loop or stmt")

break stmt

it breaks the loop or stmt

Continue Stmt:

i=19

while i<=10:

print("break stmt")

continue

print("it continue with the loop or stmt")

it continue with the loop or stmt

In [ ]:

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

Range(10)- range from 0-10

Range(0,10)- start is 0 and stop is 10

Range(0,10,1)- start is 0 and stop is 10 with step of 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.

For loop:

for i in range(1,10):

print("range from 1 to 10: ",i)

While loop:

i=1

while i<= 10:

print("range from 1 to 10 : ",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?

Inside Spam.py

def Bacon():

print("this is a spam module fn()")

import Spam

Spam.Bacon()

this is a spam module fn()