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

Ans🡪 The two values of the Boolean data type is .

1. True
2. False

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

Ans 🡪

1) and

2) or

3) 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. and Operator.

|  |  |  |
| --- | --- | --- |
| Input value1 | Input value2 | Ouput value |
| True | True | True |
| True | False | False |
| False | True | False |
| False | False | False |

1. or Operator.

|  |  |  |
| --- | --- | --- |
| Input value1 | Input value2 | Ouput value |
| True | True | True |
| True | False | True |
| False | True | True |
| False | False | False |

3)

|  |  |
| --- | --- |
| Input value | Ouput value |
| True | False |
| False | True |

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?

Ans🡪

1. a>b (a is greater than b)
2. a<b (a is less than b)
3. a>=b (a is greater than equal to b)
4. a<=b (a is less than equal to b)
5. a==b (a is equal to b)
6. a!=b ( a is not equal to b)

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

Ans🡪 there is difference between equal to and assignment operator for equal to we use (==) double sign and for assignment operator we use (=) single sign.

Assignment operator is used when the we have to assign a value to a variable name and for Equal to we use when we have to check condition that is one value is equal to other value.

For example Assignment operator 🡪 a=4.

Equal to 🡪 if (a==4)

7. Identify the three blocks in this code:

spam = 0

if spam == 10: (block1)

print('eggs')

if spam > 5: (block2)

print('bacon')

else: (block3)

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.

Ans 🡪 spam=int(input(“Enter the value of spam”))

if(spam==1):

print(“Hello”)

elif(spam==2):

print(“Howdy”)

else:

print(“Greeting!”)

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 🡪 Break : break is used to stop for loop for permanently at certain condition

Continue: Continue is used to skip the for loop statement at certain condition given.

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

Ans 🡪 This three range given here will given the same output .

1. range(10)🡪 In this range the for loop run from 0 to less than 10.
2. range(0,10) 🡪 In this range the for loop run from the given first value 0 to less than 10
3. range(0,10,1) 🡪 this range is also similar but the only difference is third value is step size of incrementing the value.

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 🡪 For loop program :

for i in range(1,11):

print(i)

While loop Program:

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?

Ans🡪 spam.bacon()