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

Ans. Two values of Boolean data type are : True, False

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

Ans. and, or, xor, 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.

|  |  |
| --- | --- |
| A | Not A |
| 0 | 1 |
| 1 | 0 |

|  |  |  |
| --- | --- | --- |
| A | B | A and B |
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

|  |  |  |
| --- | --- | --- |
| A | B | A or B |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 1 |

4. What are the values of the following expressions?

(5 > 4) and (3 == 5): False(0)

not (5 > 4): False(0)

(5 > 4) or (3 == 5): True (1)

not ((5 > 4) or (3 == 5)): False (0)

(True and True) and (True == False): False (0)

(not False) or (not True): True (1)

5. What are the six comparison operators?

Ans. >: greater than

<: less than

==: equal to

>=: greater than equal to

<=: less than 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.

Ans. Assignment operator is used to assign values to a variable while equal operator is used for comparison.

e.g. of Assignment operator: a = 5, a= ‘sharma’ etc

e.g. of equal operator: a = 5, b = 6

if a == b: print(True)

7. Identify the three blocks in this code:

spam = 0

if spam == 10:

print('eggs') # block 1

if spam > 5:

print('bacon') # block 2 inside block 1

else:

print('ham') # block 3 inside block 1

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. 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?

Ans. CTRL + C

10. How can you tell the difference between break and continue?

Ans. Break: Break is used for immediate termination of loop.

Continue: Continue terminates the current iteration and resumes the control to the next iteration of the loop.

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

Ans. there no difference between these three function given above because these three gives a same output. But in other cases they give different results.

range(start, end, step)

range(10) means all the values from 0 to 10, 10 is excluded

range(0,10) means start from 0 and end at 10, 10 is excluded.

range(0,10,1) means start from 0 and end at 10 with step of 1, 10 is excluded

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 i in range(1,11):

print(i)

i = 1

while i < 11:

print(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()