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

Ans: 2 values of Boolean data type: True and False

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

Ans: AND, OR and NOT are the 3 types of Boolean operators

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 | B | AND | OR | NOT A |
| False | False | False | False | True |
| False | True | False | True | True |
| True | False | False | True | False |
| True | True | True | True | False |

4. What are the values of the following expressions?

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

Ans: False

not (5 > 4)

Ans: False

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

Ans: True

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

Ans: False

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

Ans: False

(not False) or (not True)

Ans: True

5. What are the six comparison operators?

a. less than

b. greater than

c. less than or equal to

d. greater than or equal to

e. equal to

f. 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 a value to a variable

assignment operator example:

a=50

Equal to operator is used to check the equality condition

Equal to operator example:

If (a==50):

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:

Output:

Hamspamspam

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: If the program is running from command line, we can press control plus ‘c’

Or

When writing a program, we can use break to exit or use a loop variable

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

Ans: Break exits the loop prematurely while continue skips the current iteration

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

Ans: All 3 will print the output: 0,1,2,3,4,5,6,7,8,9

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

For i in range(1,11):

Print(i)

While loop

i=1

while(i<=10):

print(i)

i++

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

Ans:

Import spam as s

s.bacon()