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

True and False.

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

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).

|  |  |  |
| --- | --- | --- |
| AND Truth Table | |  |
|  |  |  |
| A | B | A and B |
| TRUE | FALSE | FALSE |
| FALSE | TRUE | FALSE |
| FALSE | FALSE | FALSE |
| TRUE | TRUE | TRUE |
|  |  |  |
|  |  |  |
| OR Truth Table | |  |
|  |  |  |
| A | B | A and B |
| TRUE | FALSE | TRUE |
| FALSE | TRUE | TRUE |
| FALSE | FALSE | FALSE |
| TRUE | TRUE | TRUE |
|  |  |  |
| NOT Truth Table | |  |
|  |  |  |
| A | not A |  |
| 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?

1. <
2. >
3. ==
4. >=
5. <=
6. !=

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

Assignment operators include =, +=, -=, \*=, /= symbol whereas equal to is represented by “==”

Using “==” means that variable is exactly equal to the value on right hand side of equal sign whereas “+=” means greater than equal to eg. i = i + 1 can be written as i+=1.

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')

I couldn’t understand the question. If it’s asked to identify problem in the written code then answer is as under:

1. Indentation problem – print(‘eggs’), print(‘bacon’) and print(‘ham’), print(‘spam’), print(‘spam’) should be written with one indentation.

If output is asked, then answer is 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.

stored\_number\_in\_spam = int(input("Enter the number"))

if stored\_number\_in\_spam == 1:

print("Hello")

elif stored\_number\_in\_spam == 2:

print("Howdy")

else:

print("Greetings!")

9.If your programme is stuck in an endless loop, what keys you’ll press?

Ctrl + Alt + Del. Click on Task Manager to end the application.

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

Break – Loop will end once the condition of break is met.

Continue – Loop will continue and go to step 1 after meeting the condition.

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

There is no difference. Output will be same.

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 a in range(1,11):

print (a)

a = a +1

While Loop:

a = 0

while a <10:

a = a + 1

print (a)

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

=bacon()