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

two types- True and False. They can be written as True/False.

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

not, and , or

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 ).

for And and Or

| A | B | and | or |
| --- | --- | --- | --- |
| True | True | True | True |
| True | False | False | True |
| False | True | False | True |
| False | False | False | False |

for not

not True=False , not 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?

== equal to

!= not equal to

> greater than

< smaller than

>= greater than or equal to

<= less than or 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.

== is equal to operator , = is assignment operator

equal to operator consists of double ‘=’ sign and assignment operator consists of single ‘=’ sign.

example condition:

a=10

b=20

a==b =>returns False

in the above example , in the first two lines, values are being assigned using assignment operator, and in the third line values are being compared.

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')

there are 3 blocks-> from line2 to 3, from line 4 to 5, from line 6 to 9, color coded below

spam = 0

if spam == 10:

print('eggs')

if spam > 5:

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.

spam=int(input())

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’ as the name suggests breaks the execution and comes out of the loop, whereas, ‘continue’ statement skips the current cycle of the loop and continues with the rest of execution.

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

the general syntax of the range function is => range(start, stop, jump)

start gives the starting point of the range, and the value is included.

Stop gives the end point of the range, the value is excluded.

jump gives how much value is supposed to be jumped in each iteration.

in range(10), by default the start value is assumed to be 0, and only the end value is specified, and by default the jump is assumed to be 1.

in range(0,10), start and end value is specified. jump is assumed to be 1 by default.

in range(0,10,1), all three of the start ,end and jump values are specified.

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.

printing the numbers 1 to 10 using a for loop:

for i in range(1,11):

print(i)

equivalent program that prints the numbers 1 to 10 using a while loop:

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?

import spam

spam.bacon()