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Q1.What are the two values of the Boolean data type? How do you write
them?

Sol : True , False are the only two types of boolean values
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Q2. What are the three different types of Boolean operators?

Sol : and , or , not are the three types of boolean operators
      and : will return True if all are True else False
      or : will return False if all are False else True
      not : it flips the output
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Q3. 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 ).

Sol : and operator :
        True and True : True
        True and False : False
        False and True : False
        False and False : False

      or operator :
        True or True : True
        True or False : True
        False or True : True
        False or False : False

      not operator :
        not True : False
        not False : True
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Q4. What are the values of the following expressions?

Sol :
(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
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Q5. What are the six comparison operators?

Sol : six comparision operators are :
        < : less then
        > : greater then
        == : equal to
        != : not equal to
        <= : less then equal to
        >= : greater then equal to
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Q6. How do you tell the difference between the equal to and assignment operators?Describe a condition and when you would use one.

Sol : assignment operator is =
        eg : x = 10
      while equal to operator is used for comparisions ==
        eg : 10 == 5 it will check is 10 is equal to 5 or not its always return the value in boolean
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Q7. Identify the three blocks in this code:

Sol : in this code there are 2 if blocks and one if-else block

-> first if block
spam = 0
if spam == 10:
    print('eggs')

-> second if block
if spam > 5:
    print('bacon')

-> third if-else block
if spam > 5:
    print('bacon')
else:
    print('ham')
    print('spam')
    print('spam')
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Q8. 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.

Sol :

spam = int(input())

if spam == 1:
    print("Hello")
elif spam == 2:
    print("Howdy")
else:
    print("Greetings!")
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Q9.If your programme is stuck in an endless loop, what keys you'll press?

Sol : i will press Ctrl + C
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Q10. How can you tell the difference between break and continue?

Sol : break : its is used for terminate or come out from the loop on perticular condition
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      continue : it is generally used to skip the loop on perticular
condition
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Q11. In a for loop, what is the difference between range(10), range(0,
10), and range(0, 10, 1)?

Sol : range(10) : it contains values from 0 to 9
      range(0,10) : its also contains value from 0 to 9
      range(0,10,1) : its also contains the values from 0 to 9
the syntax of range function is range(start,end,step), if we are not
passing start and step value in range() it will by default take 0 as start
and 1 as step. thats why above examples having the same output.
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Q12. 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.

Sol : using for loop :
for i in range(1,10):
    print(i)

using while loop :
i = 1
while i <= 10:
    print(i)
    i += 1
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Q13. If you had a function named bacon() inside a module named spam, how
would you call it after importing spam?

Sol : from spam import bacon
      bacon()

      OR

      import spam
      spam.bacon()
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In [ ]:
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