**Note: For solutions of coding questions 8 and 12 please refer “Assignmet 2\_coding questions.ipynb” file.**

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

Ans:- Two values of boolean datatype are written as True and False.

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

Ans:- Three Boolean operators are “and,” “or” and “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:- Below is the boolean operator's truth table

1."and" AND "or" operator.

| a | b | a and b | a or b |
| --- | --- | --- | --- |
| True | True | True | True |
| True | False | False | True |
| False | True | False | True |
| False | False | False | False |

2.not operator.

| Value | not evalaution |
| --- | --- |
| True | False |
| False | True |

**4.What are the values of the following expressions?4.What are the values of the following expressions?**

| Expression | Result |
| --- | --- |
| (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?**

Ans:- Below are the six comparison operators:

1. == - compares whether both values are equal or not.

2. != - compares whether both values are not the same.

3. > - compares whether left hand value is greater than right hand value.

4. < - compares whether left hand value is less than right hand value.

5. >= - compares whether left hand value is greater than or equal to right hand value.

6. <= - compares wheteher left hand value is less than or equal to right hand value.

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

Ans:-

1."equal to" operator is used to compare whether both the values are equal or not whereas assignment operator is used to assign a value to a variable.

2."equal to" operator is denoted by "==" and assignment operator is denoted by a single "=".

**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:-

1st block

if spam == 10:

print('eggs') #block 1

2nd block

if spam > 5:

print('bacon') #block 2

3rd block

else:

print('ham') #block 3

print('spam') #block 3

print('spam') #block 3

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

Ans:- you can press the ctrl + c key combination to stop a program stuck in an endless loop.

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

Ans:- if a condition is met then break statement will stop the loop while continue statement will still continue the loop.

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

Ans:- range(10) - range sequence will start from 0 and end at 9 without skipping any values as only the stop parameter is mentioned in the function.

range(0, 10) - range sequence will start from 0 and end at 9 without skipping any values as only the start and stop parameter are mentioned in the function with 0 and 10 value respectively.

range(0, 10, 1) -range sequence will start from 0 and end at 9 while incrementing values with 1 as all the start,stop and step parameters are mentioned in the function with 0,10 and 1 value respectively. output will be - 0,1,2,3,4,5,7,6,8,9 for all the above mentioned methods.

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

Ans:- first we would be importing the spam module and then we can use the below syntax to call the bacon() function. import spam spam.bacon()