CSE-103

Subject: Assignment from Book.   Student Id: **1705074**

Chapter no: **1**   Verifying Student Id: **1705016**

Section no : **2**

Exercise no: **17**

17.

When three professors are seated in a restaurant, the hostess asks them: "Does everyone want coffee?" The first professor says: "I do not know." The second professor then says: "I do not know." Finally, the third professor says: "No, not everyone wants coffee." The hostess comes back and gives coffee to the professors who want it. How did she figure out who wanted coffee?

Answer :

The question was "Does everyone want coffee?" If the first professor did not want coffee, then he would know that the answer to the question was "no." Therefore the hostess and the other two professors know that the first professor wants coffee. The same logic applies to the second professor. So, the second professor also wants coffee. The third professor can now answer the question. As he said "No, not everyone wants coffee." ,we conclude that he does not want coffee. Thus the hostess can figure out that the first two professors want coffee but the third professor don't.