

*Assignment\_CSE 103.txt*

*CSE-103*

*Subject: Assignment from Book.*

*Student Id: 1705068*

*Chapter no.: 1*

*Verifying Student Id: 1705022*

*Section no.: 2*

*Exercise no.: 11*

*Problem: Are these system specifications consistent? "The router can send packets to the edge system only if it supports the new address space. For the router to support the new address space it is necessary that the latest software release be installed. The router can send packet to the edge system if the latest software release is installed, The router does not support the new address space."*

*Solution: These system specifications are consistent.*

*Explanation: Let  $s$  be "The router can send packets to the edge system"; let  $a$  be "The router supports the new address space"; let  $r$  be "The latest software release is installed." Then we are told  $s \rightarrow a$ ,  $a \rightarrow r$ ,  $r \rightarrow s$ , and not  $a$ . Since  $a$  is false, the first conditional statement tells us that  $s$  must be false. From that we decide from the third conditional statement that  $r$  should be false. If indeed all three propositions are false, then all four specifications are true, so they are consistent.*