Quiz Number 4

Open Book; Open Notes
Time Given=15 minutes (15/04/2003)

“I certify that I have neither received nor given unpermitted aid on this examination and that I have reported all such incidents observed by me in which unpermitted aid is given.”

Name ___________________________  Student ID ___________________________

Question 1: [4pts] As mentioned in the reading, NHLFE stands for “Next hop label forwarding entry”. This is quite similar to an entry in the routing table. State all information this entry should contain.

Question 2: [3pts] As mentioned in the assigned reading, when a packet reaches a label switching router (LSR), the next hop could be the same LSR itself. In such a case, the “label stack operation” MUST be to “pop the stack”. What could be the reason for this?

Question 3: [3pts] The “incoming label map” (ILM) maps an incoming label to a SET of NHLFEs; the SET may contain one or more NHLFEs. State at least one reason why a label may be mapped to more than one NHLFE?