(M) 8/12/17 (Dr. Pushpender kr. Dhiman) G2 (323)

(Dual degree)

Roll No................

National Institute of Technology

Name of Examination: Final Examination

Branch: Dual Degree
Couse Name: Topics in Computer Networks
Time: 3 Hours

Semester: 7th
Course Code: CSE – 600
Max. Marks: 60

Q. 1 Given a fragmented datagram with an offset of 120, how can you determine the first and last byte number? (6)

Q. 2 What is the significance of subnetting? Discuss in details. (6)

Q. 3 What is the difference between congestion control and flow control? (6)

Q. 4 Explain the header format for IPv6. Compare IPv4 with IPv6. (6)

Q. 5 Illustrate and Explain UPD and TCP, also explain packet format of both. (6)

Q. 6 Show the unabbreviated colon hex notation for the following IPv6 addresses: (6)

     a. An address with 64 0s followed by 32 two-bit (01)s.
     b. An address with 64 0s followed by 32 two-bit (10)s.
     c. An address with 64 two-bit (01)s.
     d. An address with 32 four-bit (0111)s.

Q. 7 When we send an e-mail to multiple recipients, are we are using multicasting or multiple unicasting? Give the reason for your answer. (6)

Q. 8 List three steps that a DVMRP router uses to create a source-based tree and explain each step. (6)

Q. 9 In classless addressing, we know the first and the last address in the block. Can we find the prefix length? If the answer is yes, show the process. (6)

Q. 10 Should internetworking be concerned with a network's internal routing? Why or why not? (6)