B. Tech Degree VI Semester Examination, April 2009

CS/IT 606 COMPUTER NETWORKS
(2006 Scheme)

Time: 3 Hours

Maximum Marks: 100

PART A
(Answer all questions)

(8 x 5 = 40)

I. (a) Why do HTTP, FTP, SMTP run on top of TCP rather than UDP? Why not?
    (b) What is a protocol? Explain a protocol stack with example.
    (c) Compare Data gram and virtual circuits.
    (d) Explain IPV4 data gram format.
    (e) Compare and contrast link state and distant vector routing algorithms.
    (f) Write short notes on (i) TDM (ii) FDM.
    (g) Describe different physical layer services.
    (h) Write short notes on (i) Network traffic monitoring (ii) Socket programming.

PART B

(4 x 15 = 60)

II.   With a neat sketch explain OSI reference model in detail.   (15)
OR
III. What is DNS? How the databases are maintained and used in DNS. What is the message
      format?   (15)

IV.   What is congestion? Explain different congestion control algorithms and compare.   (15)
OR
V. (a) Explain TCP segment structure.   (7)
    (b) Explain TCP connection establishment & Termination.   (8)

VI.   What are the different services of DLL. Explain CRC algorithm and how errors
      are corrected in CRC, with an example.   (15)
OR
VII. Explain HDLC protocol in detail.   (15)

VIII. Why we need data encoding schemes? What are the different encoding schemes
      available? Explain any two data encoding schemes in detail.   (15)
OR
IX.   What is ISDN? Explain ISDN. Compare with B-ISDN.   (15)

***