Eighth Semester B.E. Degree Examination, June/July 2017
High Performance Computer Networks

Time: 3 hrs.   Max. Marks:100

Note: *Answer FIVE full questions, selecting*
atleast TWO questions from each part.

PART – A

1   a. Explain digital carrier systems in telephone networks.   (10 Marks)
    b. Compare and contrast the key innovation in CATV and wireless network.   (10 Marks)

2   a. How statistical multiplexing can achieve much higher multiplexing gain relative to TDM and FDM?   (10 Marks)
    b. Explain congestion control mechanism. Calculate the time required to transmit (TRANS) a packet of size 1000 bit with speed 1 Mbps.   (10 Marks)

3   a. Explain IPV6 header.   (10 Marks)
    b. Compare and contrast TCP and UDP.   (10 Marks)

4   Write a short notes on :
    a. DWDM.   (07 Marks)
    b. SONET frame.   (07 Marks)
    c. Function of overhead bytes in SONET.   (06 Marks)

PART – B

5   a. Explain main feature of ATM and ATM header structure.   (10 Marks)
    b. Explain signaling and addressing with respect to ATM network.   (10 Marks)

6   a. Explain different link level design techniques.   (10 Marks)
    b. Discuss multiple access techniques.   (10 Marks)

7   a. Explain means of control of different types of network.   (10 Marks)
    b. Discuss QoS.   (10 Marks)

8   a. Explain optical network and Ring network.   (10 Marks)
    b. Explain architecture of an optical cross connect with N input, output fiber. (10 Marks)

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