Time: 3 hours   **Max. Marks: 75**

PART A (1.5 marks each)

Q1 (a) Which layer of the OSI model is responsible for dialogue control?

(b) What are the advantages and disadvantages of mesh topology?

(c) What is Piggybacking?

(d) Explain CRC with example.

(e) What is the use of subnet mask?

(f) Identify the class of IP address: 192.168.2.3

(g) What are the functions of the transport layer?

(h) What parameters affect the QOS?

(i) Explain FTP.

(j) Describe post office protocol.

PART B

Q2 (a) Write a note on wireless LAN and explain its frame format.   (10)

(b) Describe the concept of the Spread spectrum.   (5)

Q3 (a) Calculate the hamming distance between code words C_1 = 10110101 and C_2 = 01111010   (10)

(b) Explain CSMA/CD protocol.   (5)

Q4 Explain BOOTP and DHCP in detail. (15)

Q5 (a) Compare TCP and UDP with their frame format   (10)

(b) Explain the Leaky Bucket protocol.   (5)

Q6 A slotted Aloha network transmits 400 bit frames on a shared channel of 400 Kbps. What is life throughput of the system if there are 5 nodes and one system produces 2000 frames/sec. (15)

Q7 Explain the following terms :   5×3=15

    (i) TELNET

   (ii) SNMP

  (iii) Cryptography

Praxian