

Total No. of Questions : 10] [Total No. of Printed Pages : 2

Roll No.

EC-601(N)

B. E. (Sixth Semester) EXAMINATION, June, 2011

(Electronics & Communication Engg. Branch)

DATA COMMUNICATION AND NETWORKS

[EC-601(N)]

Time : Three Hours

Maximum Marks : 100

Minimum Pass Marks : 35

Note : Attempt *one* question from each Unit. All questions carry equal marks.

Unit-I

1. Explain TCP/IP protocol suits with different layers and addressing. Compare the layers of TCP/IP protocol suit with the layers of OSI models. 20

Or

2. (a) What is the difference between layer delivery and transport layer delivery ? 10
(b) What are headers and trailers and how do they get added and removed ? 10

Unit-II

3. (a) What is multiplexing ? Compare wavelength division and synchronous line division multiplexing. 10
(b) What is digital subscriber line ? Explain any *two* of them. 10

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Or

4. What is circuit switching ? How is it different from packet switching ? Explain data gram networks with proper example. 20

Unit - III

5. What is the formula to calculate the number of redundancy bits required to correct bit in a given number of data bits ? Also explain hamming codes. 20

Or

6. Explain the following : 20
- (a) Block coding
 - (b) Noiseless channel
 - (c) Redundancy
 - (d) Cyclic code analysis

Unit - IV

7. What is ALOHA ? Explain and compare CSMA, CSMA/CD and CSMA/CA protocols. 20

Or

8. (a) What is polling ? 10
- (b) Write short notes on the following : 10
- (i) Fast Ethernet
 - (ii) IEEE 802.11

Unit - V

9. What is IPv6 address ? How is it different from IPv4 address mapping ? Explain with structure and address space. 20

Or

10. Define the following terms : 20
- (i) Active hubs
 - (ii) Virtual LANs
 - (iii) NAT
 - (iv) Three layer switches