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B. Tech (EE) (Semester – 6th/8th)

COMPUTER NETWORKS-I

Subject Code: BCSE0F96

Paper ID: [OE2111525]

Time: 03 Hours

Maximum Marks: 60

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A

(2 marks each)

Q1. Attempt the following:

- a. What is a peer-peer process?
- b. What are the different criteria of installing a network in local area network?
- c. What is Bandwidth-Delay Product? Explain its significance in data communication networks with example.
- d. What are the responsibilities of Network Layer?
- e. What is exponential back off?
- f. Explain Circuit Switching.
- g. What would you infer from the term RTT?
- h. What is firewall?
- i. Explain Denial of service.
- j. Explain File Transfer Protocol (FTP) in application layer of network.

Section – B

(5 marks each)

- Q2. Highlight the difference between ISO-OSI and TCP/IP reference model.
- Q3. Explain sliding window protocol of data link layer with diagram.
- Q4. Differentiate between UDP and TCP.
- Q5. Explain the advantage of IPv6 over IPv4.
- Q6. Discuss the TCP connections needed in FTP.

Section – C

(10 marks each)

- Q7. What are the different types of networking / internetworking devices? Explain in detail.
- Q8. What is e-mail security? What are different protocols for e-mail security? Explain PGP for E-mail security with operation mode. Describe the use SMIME also.
- Q9. Write short note on (i) World Wide Web, (ii) High Speed Networks.