Roll No……..….. **Total No. of Printed Pages: [1]**
Total No. of Questions: [09]

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.