Exam Code: 0928
Sub. Code: 6908

1058

B.E. (Electronics and Communication Engineering)
Fourth Semester
EC-405: Computer Networks

Time allowed: 3 Hours **Max. Marks**: 50

NOTE: *Attempt five questions* ***in all, including*** *Question No. I* ***which is compulsory and selecting*** *two questions from* ***each Unit.***

x-x-x

I. Attempt the **following:-**

a) What are **the advantages of** computer networks?

b) List two **features of mesh** topology?

c) What is **the maximum achi**evable throughput **in** PURE ALOHA?

d) How do **bridge and switch** differ?

e) Compare **leaky and token** bucket congestion **control** algorithms.

f) What do **you understand** 10base2?

g) **What are Traceroute** and PING?

h) **What is a DNS?**

i) **Distinguish between** TELNET and FTP?

j) **What is the** basic difference between static and dynamic DHCP? **(10x1)**

UNIT – II

II. a) Compare and contrast TCP/IP and OSI models.

b) Explain the ARPANET and history of Internet. **(2x5)**

III. a) Discuss in detail the working and characteristics **of Bluetooth.**

b) What are different transmission impairments **and performance parameters** in computer networks? Explain. **(2x5)**

IV. a) Explain with the help of an example how **checksum can be used to detect** error.

b) Explain in detail CSMA/CA with the **help of suitable diagram.** (2x5)

P.T.O.

UNIT – II

V. a) With example explain link state routing algorithm.

b) Explain NAT. How does it benefit addressing scheme in IPv4? (2x5)

VI. a) Explain the congestion control in Datagram and virtual circuits in transport layer.

b) List the advantages of UDP over TCP. Describe how UDP is encapsulated in an IP datagram. (2x5)

VII. a) Explain concept of Token bucket algorithms.

b) Describe cryptography in detail. (2x5)

x-x-x