2053

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. Use of scientific calculator is allowed.*

x-x-x

I. Attempt the following:-

(a) What is SLIP?

(b) What is the task of Network layer?

(c) List the advantages of a Modem.

(d) What do you understand by decoder?

(e) What is the limitation of star topology? (5x2)

## UNIT - I

II. a) Illustrate TCP/IP reference model with a neat diagram.

b) Compare and contrast guided and unguided media for transmission. (2x5)

III. a) DNS uses UDP instead of TCP. If a DNS packet is lost, there is no automatic recovery. Does this cause a problem, and if so, how it is solved?

b) Discuss in detail about the packet-switched networks. (2x5)

IV. Discuss the different ways to address the framing problem. (10)

## UNIT - II

V. a) How would you demonstrate the challenges in inter-domain routing?

b) Explain Simple Key management for internet protocols in detail? (2x5)

VI. a) What is authentication? Explain how the authentication is provided based on shared secret key?

b) Write about Electronic mail in detail. (2x5)

VII. a) Explain telnet in details.

b) Can we substitute an alternative protocol for IMAP? Justify your answer. (2x5)

x-x-x