

Exam.Code:0928

Sub. Code: 6584 ✓

2054

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. 1 which is compulsory and selecting two questions from each Unit. Use of scientific calculator is allowed.

x-x-x

I. Attempt the following:-

- a) Discuss the use of computer networks.
- b) Explain port address.
- c) Explain multiplexing technique.
- d) Explain authentication header.
- e) Compare virtual circuits and datagrams. (5x2)

### UNIT - I

- II. a) Give the differences between Computer Networks and Distributed Systems.  
b) Assume 6 devices are arranged in a mesh topology. How many cables are needed?  
How many ports are needed for each device? (7,3)
- III. a) A network on the internet has a subnet mask of 255.255.240.0. What is the maximum number of hosts it can handle?  
b) Explain different ALOHA protocols and compare their performance. (3,7)
- IV. Describe the sliding window protocol for data link layer. (10)

### UNIT - II

- V. a) Describe the ATM AAL layer protocols.  
b) Give the format of TCP header and discuss the relevance of various fields. (2x5)
- VI. a) Explain in brief about DNS.  
b) What is a hidden node and exposed node? (2x5)
- VII. Compare IP4 and IP6 headers and explain how IP6 address is represented? (10)

x-x-x