Roll No.

Total No. of Questions: 09                              Total No. of Pages: 02

**B. Tech. (ECE/ETE) (Sem. 7, 8)**
**COMPUTER NETWORKS**
**Subject Code: BTCS-403**
**Paper ID: A2999**

Time: 3 Hrs.                                            Max. Marks: 60

**INSTRUCTIONS TO CANDIDATES:**

1.    **Section A is COMPULSORY consisting of TEN questions carrying TWO marks each.**

2.    **Section B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**

3.    **Section C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

**SECTION A**

1.    **Explain briefly about:**

   a)    Virtual LANs

   b)    Bridge, Hubs and Switches

   c)    Connection oriented and Connectionless services

   d)    Go Back N protocol

   e)    Load shedding for congestion control

   f)    Shortest Path Routing

   g)    Multicast Routing

   h)    Virtual Private Networks

   i)    IPv6 addressing

   j)    What is hidden node problem in wireless networks?

**SECTION B**

2.    Compare the OSI reference model with TCP/IP.

3.    Explain Carrier Sense Multiple Access Protocol in detail.

4.    What is congestion control? Explain any one of the congestion prevention policies.

**5.**  Explain distance vector routing protocol in detail?

**6.**  Identify the class of each address.

   a)  00000001  00001011  00011001 11101111

   b)  11000011 10000011 00010111 11111001

   c)  14.23.120.8

   d)  129.255.255.255

   e)  252.5.52.117

### SECTION C

**7.**  Explain about leaky bucket algorithm in detail.

**8.**  What is IPSec? Discuss about its various modes of working.

**9.**  Explain about:

   a)   ARP and RARP

   b)   ALOHA