

## ***B. Tech Degree VII Semester (Supplementary) Examination July 2010***

### **IT/CS/EC 701 COMPUTER NETWORKS (2002 Scheme)**

Time : 3 Hours

Maximum Marks : 100

- I. (a) Briefly explain the TCP/IP reference model and functions of each layer. (10)  
 (b) Briefly explain BISDN and ATM reference model. (10)
- OR**
- II. (a) Briefly explain the OSI-ISO reference model and functions of each layer. (10)  
 (b) Explain the following :  
       (i) X.25 networks (ii) Frame relay (10)
- III. (a) Explain sliding window protocol with example. (12)  
 (b) Briefly explain the services provided by Data link Layer. (8)
- OR**
- IV. (a) Explain the following :  
       (i) TDM (ii) FDM (10)  
 (b) Describe the Random access protocols and explain ALOHA. (10)
- V. (a) Briefly explain how multicast routing is used in internet. (12)  
 (b) Briefly explain hierarchical routing. (8)
- OR**
- VI. (a) Explain IPV4 datagram format. (10)  
 (b) Discuss the inter autonomous system routing protocol BGP in detail. (10)
- VII. (a) Explain UDP, its segment structure and how error is detected. (10)  
 (b) Discuss the causes and costs of congestion. (10)
- OR**
- VIII. (a) Explain TCP, its segment structure with diagram. (12)  
 (b) Explain how TCP connection management is implemented. (8)
- IX. (a) Explain how SNMP is used to manage the network. (10)  
 (b) What is Digital Signature? Explain how it is implemented. (10)
- OR**
- X. (a) Explain how file is transferred using FTP. (8)  
 (b) Explain the following :  
       (i) DNS  
       (ii) RSA Cryptographic Algorithm  
       (iii) IP Security. (12)