B.E (CMPN & INFT) - VII (REV) May - 2007 - Advanced computer N/W.

Con/3306–07. **(REVISED COURSE)** ND–1501

(3 Hours) **[Total Marks : 100**

N.B. : (1) Question No. **1** is **compulsory**.
(2) Attempt any **four** questions from remaining questions.
(3) Assumptions should be justified.
(4) **Figures** to the **right** indicate marks.

1. (a) Explain Network design steps in brief, with examples. How security issues can be addressed at the time of network design ? **10**
   (b) What is network management ? Explain tools and protocols used for it. **10**

2. (a) How flow control helps in congestion control, explain in detail. **10**
   (b) Explain IP address subnetting issues. What do you understand by NAT and class-less addressing schemes ? **10**

3. (a) Explain SONET architecture. Enlist some application where SONET is more suitable. **10**
   (b) How ATM networks give QOS guarantee ? **10**

4. (a) Write socket primitives for any connection-oriented transport layer protocol. **10**
   (b) Compare Distance Vector with link state routing algorithms. **10**

5. (a) Explain relevance of traffic Engineering and capacity planning in network designing. **10**
   (b) Give details of FDDI. **10**

6. (a) Compare FR, ATM and private lines by considering the WAN services. **10**
   (b) What is the importance of queueing theory for networking ? **10**

7. Write short notes (any **four**) : **20**
   (a) IP4 Vs IPV6. (compare both the protocols)
   (b) X-25
   (c) Role of Graphs and probability in networking
   (d) SMDS
   (e) Gigabit Ethernet.