

QP Code : 15153

(3 Hours)

[Total Marks : 100]

- N.B.** (1) Solve any **five** questions **out of seven** questions.
(2) Question No. 1 is **compulsory**.
(3) **Assumptions** if any, must be **clearly** stated.

1. (a) What is subnetting. Explain with the help of suitable example using CIDR notations. 10
(b) Explain the following internetworking devices :— 10
 - (i) HUB
 - (ii) L2 Switch
 - (iii) Router
 - (iv) Gateway.
2. (a) What is MPLS and how it gives guarantee of Q. O. S. 10
(b) Explain the SDH/SONET Architecture with the help of diagram. 10
3. (a) Explain ATM Adaptation layers in detail. 10
(b) What is Intra domain and Inter domain routing. Explain any one routing protocol belonging to Intra domain routing. 10
4. (a) Explain SNMP in detail. 10
(b) Explain various topologies for backbone N/W. 10
5. (a) Explain X-25 N/W layer functions in detail. 10
(b) Explain all the TCP timers. 10
6. (a) Compare IPV4 and IPV6, giving the details of class based addressing scheme of IPV4. 10
(b) Write a socket program for client server based communication. 10
7. Write short notes on any **two** of the following :— 20
 - (a) DWDM
 - (b) DMZ
 - (c) X-75
 - (d) Frame Relay.