

**(OLD COURSE)**

**Q.P. Code : 4329**

**(3 Hours)**

**[ Total Marks : 100**

- N.B. :** (1) Question number I is **compulsory**.  
 (2) Solve any **four** questions out of the remaining **six** questions

- |        |   |    |
|--------|---|----|
| 1. (a) | Explain in detail Multi Protocol Label switching ( MPLS)                                      | 10 |
| (b)    | Explain SONET frame structure.  | 10 |
| 2. (a) | Explain in detail the architecture of ATM.  | 10 |
| (b)    | With respect to IP Address design issues, explain subnetting, supernetting, CIDR and NAT.     | 10 |
| 3. (a) | Explain the relevance of traffic engineering and capacity planning to network design process. | 10 |
| (b)    | Explain various QoS parameters in case of ATM   | 10 |
| 4. (a) | Compare IPV4 and IPV6 giving the details of class based addressing scheme of IPV4.            | 10 |
| (b)    | Explain the networking & internetworking devices.   | 10 |
| 5. (a) | Explain any one unicast Routing protocol  | 10 |
| (b)    | Explain M/M/1 queuing system.   | 10 |
| 6. (a) | Explain SNMP protocol in detail.  | 10 |
| (b)    | Explain the principles of DWDM and its hardware requirements.                                 | 10 |
| 7.     | Write short notes on any <b>two</b> of the following:   | 20 |
| (a)    | packet filtering  |    |
| (b)    | Requirements of Backbone Network Design.  |    |
| (c)    | X.25  |    |
| (d)    | Traffic Descriptors   |    |