

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VIII • EXAMINATION – SUMMER 2013****Subject Code: 180704****Date: 10/05/2013****Subject Name: Advance Computer Networks (Department Elective-I)****Time: 10:30 am TO 01:00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) What is the relationship between SONET and SDH? Describe DWDM in detail. **07**
- (b) Explain sub netting? For a network address 192.168.10.0 and subnet mask 255.255.255.224 then calculate: **07**
- i. No of subnet and no of host
 - ii. Valid subnets.
- Q.2** (a) Explain the ATM reference model and explain what are the various services provided by it. **07**
- (b) How the flow control implemented in X.25? Compare X.25 and TCP/IP protocol suite. **07**
- OR**
- (b) List and explain five commands to configure router. **07**
- Q.3** (a) Write short note on Spanning tree protocol (STP). **07**
- (b) Compare IPV4 and IPV6 with their header format. **07**
- OR**
- Q.3** (a) List and explain seven application layer protocol of TCP/IP protocol suite. **07**
- (b) Describe the multiprotocol label switching (MPLS) working and operation? Compare MPLS with ATM network. **07**
- Q.4** (a) Explain the purpose and structure of managed information based (MIB) **07**
- (b) Describe BGP (Border Gateway protocol) in detail. **07**
- OR**
- Q.4** (a) Explain availability, reliability and maintainability of a network in detail for network management. **07**
- (b) Write short note on OSPF (open shortest path first) algorithm. **07**
- Q.5** (a) Give header format of Real Time Transport Protocol and its working. **07**
- (b) Explain Network Management Architecture. **07**
- OR**
- Q.5** (a) Explain business requirement, technical requirement and challenges in traffic engineering. **07**
- (b) Write short note on IGRT (Interior Gateway Routing Protocol) **07**
