

GUJARAT TECHNOLOGICAL UNIVERSITY
BE – SEMESTER – VIII EXAMINATION – WINTER 2016

Subject Code: 180704**Date: 24/10/2016****Subject Name: Advance Computer Networks (Department Elective - II)****Time: 02:30 PM to 05:00 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) i) What is the Network ID, Broadcast Address, and first & last valid IP on the subnetwork that the host 192.168.1.15/26 belongs to? **07**
 ii) How many subnets and hosts per subnet can you get from the network 172.168.21.0 255.255.255.224?
- (b) What is the relationship between SONET and SDH? Describe DWDM in detail. **07**
- Q.2** (a) Explain the ATM reference model and explain what are the various services provided by it. **07**
 (b) List and explain various QoS and Traffic parameters used in ATM networks. **07**
- OR**
- (b) Draw and Explain SDH Frame structure. **07**
- Q.3** (a) Write different equipment used in X.25 and explain architecture of X.25. **07**
 (b) Give header format of Real Time Transport Protocol and its working. **07**
- OR**
- Q.3** (a) Explain Subscriber interface and Access Protocols in SMDS. **07**
 (b) Explain Error control in UDP. **07**
- Q.4** (a) Describe the multiprotocol label switching's working and operation? Compare MPLS with ATM network. **07**
 (b) Write a short note on SNMP(Standard Network Management Protocol). **07**
- OR**
- Q.4** (a) Explain business requirement, technical requirement and challenges in traffic engineering. **07**
 (b) Show & explain various fields of IP (internet protocol) Datagram. **07**
- Q.5** (a) Describe BGP (Border Gateway protocol) in detail. **07**
 (b) Write short note on spanning tree protocol. **07**
- OR**
- Q.5** (a) Write short note on IGRP(Interior Gateway Routing Protocol). **07**
 (b) Write a short note on SAN(Storage Area Network). **07**
