

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA - SEMESTER-V EXAMINATION – SUMMER 2017

Subject Code:2650010**Date: 08-06-2017****Subject Name: ADVANCED NETWORKING (AN)****Time: 02:30 pm - 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) What is class full addressing scheme? Explain in alliance with IPV4. **07**
(b) What is sub netting and subnet mask? Explain sub netting of a network with proper example. **07**
- Q.2** (a) Explain the concept of fragmentation giving suitable example. **07**
(b) Explain IPV4 datagram format. **07**
- OR**
- (b) How Next- Hop Forwarding is done? Explain with proper example. **07**
- Q.3** (a) Why do routers issue a route change request? Draw and explain the message format of ICMP redirect message. **07**
(b) Draw the block diagram of UDP pseudo-header and explain its significance. **07**
- OR**
- Q.3** (a) Explain three-way handshake process for establishing a TCP connection. **07**
(b) What is VPN? How it is used? How it can be established? **07**
- Q.4** (a) Explain creation of NAT translation table in detail. **07**
(b) What is Management Information Base (MIB)? How MIB variable can be represented? **07**
- Q.4** (a) What is MIME? How it is used? Which are the basic content types which can be supported by MIME? **07**
(b) What is Simple Network Management Protocol (SNMP)? Explain SNMP message format in detail. **07**
- Q.5** (a) Write a short note on DHCP. Also explain DHCP Message format. **07**
(b) What is OpenFlow technology? Explain extensions and additions done in OpenFlow's version 1.1 in details. **07**
- OR**
- Q.5** (a) What is the purpose of IP Security (IP Sec) protocol? Explain IPSec authentication header in detail. **07**
(b) How the embedded systems are used in computer networks? Which are there challenges? **07**
