

GUJARAT TECHNOLOGICAL UNIVERSITY**MCA- Vth SEMESTER-EXAMINATION –JUNE - 2012****Subject code: 650010****Date: 15/06/2012****Subject Name: Advance 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) Attempt the following with explanation (1 Mark for Each) 07

- (1) Define how many subnetworks are created if the subnet mask for class C address is 255.255.255.192?
- (2) Define how many subnetworks are created if the subnet mask for class B address is 255.255.240.0?
- (3) Define how many subnetworks are created if the subnet mask for class A address is 255.252.0.0?
- (4) What is the subnet address if one of the hosts address is 192.168.123.123 and subnet mask given is 255.255.255.240?
- (5) What can be the subnet mask if Class C address block is divided into 16 subnetworks?
- (6) What can be the subnet mask if Class B address block is divided into 32 subnetworks?
- (7) What can be the subnet mask if Class A address block is divided into 128 subnetworks?

(b) Write a short note on CIDR (Classless Internet Domain Routing). 07**Q.2 (a) Define the subnet mask and Number of host in the network for given slash notation in classless addressing. 07**

- (1) \23
- (2) \27
- (3) \18
- (4) \25
- (5) \21
- (6) \17
- (7) \19

(b) Explain what is an ARP (Address Resolution Protocol) .Also define ARP cache timeout. 07**OR****(b) Explain the following TCP protocol operation in detail 07**

- (i) Peer-To-Peer communication.
- (ii) Stream Delivery.

- Q.3** (a) Define TCP Segment Format. Also explain the important **07**
(b) Write a note on SSL and TLS. **07**

OR

- Q.3** (a) Explain TCP connection Establishment and Termination process in **07**
detail.
(b) Explain the "Need of Dynamic configuration"? Also define how DHCP **07**
fulfill these requirements.

- Q.4** (a) Write a short note on private and hybrid networks. **07**
(b) What is DNS? Explain Domain name resolution. **07**

OR

- Q.4** (a) Write a note on Secure FTP.. **07**
(b) Write a note on Telnet options and option negotiation. **07**

- Q.5** (a) Explain Inverse mapping in DNS. **07**
(b) Write a note on Proxy servers.. **07**

OR

- Q.5** (a) Write a short note on firewalls.. **07**
(b) What is HTTP? Explain its error messages **07**
