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Roll No

MCTA - 202

M.E./M.Tech. II Semester

Examination, June 2016

Advance Computer Network

Time : Three Hours

Maximum Marks : 70

Note : Attempt any five questions. All questions carry equal marks.

1. a) Define protocol layering principle. Explain layering in TCP/IP internet environment. 7
b) Explain the concept of subnet addressing. Illustrate your answer with the help of example. 7
2. a) What is RARP? Write its limitations. What are the alternative solutions to ARP? 7
b) Given the IP address 160.81.91.61 and the mask 255.255.255.192. What is the broadcast address. 7
3. a) What are the deficiencies associated with IPV4 which unsuitable for the first growing internet? How are these deficiencies overcome in IPV6? 7
b) Why is an ARP query sent within a broadcast frame? Why is an ARP response sent within a frame with a specific destination MAC address? 7
4. a) Explain the triangular routing problem in mobile IPV4 and discuss its solution. 7
b) What are the different types of OSPF links? What is the basic as classification for the four types of links defined by OSPF? 7

5. a) Explain VPN. How VPN inter connects two completely private sites over the global internet with the help of example. 7
b) Draw the UDP header and explain its fields. Mention some applications where UDP is preferred over TCP. 7
6. a) Discuss in detail about the various security based protocols in detail. 7
b) Explain the concept of virtual LANs and virtual private networks. 7
7. a) Why do HTTP, FTP, SMTP, POP3 and IMAP run on top of TCP rather than on UDP? Discuss. 7
b) Explain discovery, registration and tunneling operation in mobile IP. http://www.rgpvonline.com 7
8. Explain the following terms: 14
 - i) CGI scripts
 - ii) DCOM
 - iii) Socket programming
 - iv) CIDR
