MCTA–202

M. E./M. Tech. (Second Semester)
EXAMINATION, June, 2012

(Grading/Non-Grading)

ADVANCED COMPUTER NETWORK

(MCTA–202)

Time : Three Hours

Maximum Marks : $\begin{cases} GS : 70 \\ NGS : 100 \end{cases}$

Note : Attempt any *five* questions. All questions carry equal marks. Use of calculators is permitted.

1. (a) Discuss the process of HTTP transmission. List various messages associated with it.

   (b) What is subnet mask ? What are the uses of subnet mask ?

2. (a) What is ARP ? How does ARP resolve an IP address to ethernet MAC address ?

   (b) What are the enhancement in IPv 6 over IPv 4 ? What is the use of flow label in IPv 6 header ?

3. (a) Given the IP address $160 \cdot 81 \cdot 91 \cdot 61$ and the mask $255 \cdot 255 \cdot 255 \cdot 192$. What is the broadcast address ?

   (b) Describe the TCP header format.

4. (a) Explain the triangular routing problem in mobile IPv 4 and discuss its solution.

   (b) What is proxy ARP ? What is the use of proxy ARP ?

5. (a) Explain the DNS in terms of name space, resource record and name server.

   (b) Draw the UDP header and explain its fields. Mention some applications where UDP is preferred over TCP.

6. (a) Why the OSPF protocol is now widely used as the interior router protocol in TCP/IP network ? Explain briefly.

   (b) What is servlet ? How to know whether we have to use jsp or servlet in our project ?

7. (a) What is socket abstraction ?

   (b) What is ASP ? How does ASP differ from HTML ?

8. Write short notes on any *four* of the following :

   (i) DCOM

   (ii) CGI Scripts

   (iii) ICMP

   (iv) CIDR

   (v) PPP