Advanced Internet Technology
(IT-302, May-05)

Time allowed: 3 hours
Maximum Marks: 60

Note: Section A is compulsory. Attempt any four questions from Section B and any two questions from section C.

Section-A
1. (a). Why does TCP/IP model have layers?
(b). What is the need of domain name system?
(c). What do you understand by port numbers?
(d). What services do port no. 80 and 21 signify?
(e). What does IEEE 802 standard stand for?
(f). What is the role of IP protocol?
(g). What is meant by subnet masks?
(h). What is the use of ICMP packets?
(i). What does ARP do?
(j). What does PPP protocol stand for?

Section-B
2. Discuss TCP/IP layered model explaining functions of each layer.
3. Explain the functioning of link layer.
4. Explain the format of IP header.
5. What is the role of ARP and RARP? Where are these incorporated?
6. What is ICMP? Explain IP Routing Principles.

Section-C
7. Explain UDP header format and explain each field.
8 (a) Discuss the DNS message format.
   (b) Discuss IP addressing rules mentioning subnet masks as well.
9 (a) Discuss Telnet and FTP applications.
   (b) What is the difference between TCP and UDP headers and services?