Roll No. .... Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (IT) (Sem.–6th)
ADVANCED INTERNET TECHNOLOGIES
Subject Code : IT-302
Paper ID : [A0519]

Time : 3 Hrs. Max. Marks : 60

INSTRUCTION TO CANDIDATES :
1. **SECTION-A is COMPULSORY.**
2. **Attempt any FOUR questions from SECTION-B.**
3. **Attempt any TWO questions from SECTION-C.**

SECTION-A **(10 × 2 = 20 Marks)**

l. Write short notes on :

(a) What are ephemeral ports?

(b) Define socket.

(c) Why the trailer is added at the data link layer?

(d) What is loopback address?

(e) What is maximum and minimum size of TCP header?

(f) What is multicast address?

(g) Why is UDP check sum required?

(h) What is subnet mask?

(i) What is the purpose of RARP?

(j) What is the purpose of DNS?

SECTION-B **(4 × 5 = 20 Marks)**

2. Explain the meaning of various fields of Ethernet frame.

3. Explain the use of proxy ARP.

4. Explain the dynamic routing with example.

5. What kind of services does TCP provide? Explain in brief.

6. Explain the primary and secondary DNS servers.

SECTION-C **(2 × 10 = 20 Marks)**

7. Describe the DNS request and reply message formats and their fields.

8. Explain the meaning of various fields of IPv4 protocol header.

9. Write short notes on the following :

   (a) FTP

   (b) SMTP

[A-12]