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 consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students has to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students has to attempt any TWO questions.**

SECTION-A

l. Answer briefly :

(a) What is the theoretical limit of number of IP multicast addresses?

(b) Why in IP datagram we have checksum only for header not for entire data?

(c) Compare a Connection Oriented and Connection Less Link.

(d) Define Port Number.

(e) In OSI network architecture, the routing is performed by which layer ?

(f) In case a frame doesn't get received, how does the source get to know?

(g) What is meant by subnet masks?

(h) What is meant by Tunneling?

(i) Which IP address is called Loop back Address?

(j) Compare UDP and TCP.

SECTION-B

2. What is the purpose of Proxy Server? How does it work?

3. What do you mean by TELNET? Discuss its advantages.

4. Explain the different Routing Algorithms.

5. What are the fundamental differences between a bridge and a router?

6. Discuss TCP/IP layered model explaining functions of each layer.

SECTION-C

7. Discuss the purpose of sending an ICMP Redirect Method.

8. In case a subnet mask: 255.255.255.0 is used in a LAN, how many bits are used as network address, and in host address? What are the maximum numbers of hosts that can be accommodated in such a case?

9. Write short note on :

(a) TCP time out

(b) RARP Packet Format