

**J-FB-22-00304****B. Tech. EXAMINATION, 2022**

Semester V (CBCS)

COMPUTER NETWORKS (CSE, IT)

CS-501

Time : 3 Hours

Maximum Marks : 60

*The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary continuation sheet will be issued.*

**Note :** Attempt *Five* questions in all, selecting *one* question from each Sections A, B, C and D. Q. No. 9 is compulsory.

**Section A**

1. What are the different layers in OSI model ? Explain the features of transport layer and session layer. 10
2. Differentiate between IPv4 and IPv6. 10

3. Explain flow control. What are the *two* methods that control flow of data across communication links ? 10
4. What are multiple access protocols ? Differentiate between pure aloha and slotted aloha. 10

**Section C**

5. Differentiate between IPv4 and IPv6. 10
6. Write a note on link state routing and distance vector routing.

A router using distance vector routing has the following routing table :

Net 2	6	A
Net 3	4	E
Net 4	3	A
Net 6	2	D
Net 7	1	B

The router receives the following packet from C :

Net 2	4
Net 3	5
Net 4	2

Net 6            3

Net 7            2

Show the updated routing table for the router.    **10**

### Section D

7. Explain all the features of transport layer in detail.    **10**

8. Explain DNS and WWW architecture.    **10**

### (Compulsory Question)

9. (a) Differentiate between Guided and Unguided media.

(b) What is circuit switching ?

(c) What is router and bridge ?

(d) Explain Packet Switching.

(e) Explain FDDI.

(f) What is IEEE 802.11 ?

(g) What is ICMP and IGMP ?

(h) What is HTTP ?

(i) Mention and explain the features of data link layer (any two).

(j) What is RIP and OSPF ?    **2×10=20**