SHRI VAISHNAV VIDYAPEETH VISHWAVIDYALAYA, INDORE
Shri Vaishnav Institute of Information and Technology
Department of Computer Science Engineering

MST-I

Subject Code: BTIT301N   Subject Name: Computer Networks   Sem: IV

Time: 1 Hours   Max Mark: 20

Note: All questions are compulsory. Assume suitable missing data

Que.1 (a) Differentiate between LAN, MAN, and WAN.	3	CO1
(b) What are the various network topologies?	3	CO1
(c) Explain the OSI reference model.	4	CO2

OR

(d) Explain TCP/IP model and compare it with the OSI model.

Que.2 (a) Explain the concept of framing and its types.	3	CO2
(b) Describe error detection techniques: Parity Check, CRC with suitable example.	3	CO1
(c) Explain Stop-and-Wait and Sliding Window protocols with suitable example.	4	CO2

OR

(d) What is ALOHA? Explain Pure ALOHA and Slotted ALOHA.

CO1: Understanding basic computer network technology.
CO2: Understand the functions of each layer in OSI and TCP reference Model.

SHRI VAISHNAV VIDYAPEETH VISHWAVIDYALAYA, INDORE
Shri Vaishnav Institute of Information and Technology
Department of Computer Science Engineering
MST-2

Subject Code: BTIT501N   Subject Name: Computer Networks   Sem: IV

Time: 1 Hours   Max Mark: 20

Note: All questions are compulsory. Assume suitable riessing data

Que 1 (a) Why might a network administrator choose dynamic routing over stadic routing? Justify your
answer.   3   CO3

(b) Compare distance vector and link state routing.   3   CO3

(c) A networlchss 4 routers A, B, C, and D. Fach router shares the following link coder A-B, 2, A C: 5,
B C: 1, C D: 3 Use Dijkstra's algorithm to find the shortest path from router A.   4   CO3

OR

(d) Given the IP adurces: 192,168.10.0/24, Yon need to create 5 subnets.

Que 2 (a) Compare TCP and UDP in terme of reliability and speed.   3   CO4

(b) Draw UDP header format. If a UDP datagram hes a toud length of 32 bytes and the hender is is
bytes long: How nany bytes are avallable for data?   3   CO4

(c) Why TCP preferred over UDP for FTP and SMTP?   4   CO4

OR

(d) Design a simple iP addressing schente for SWIT with 3 departments as CSE, AIDS and ISCC

CO1: Obtain skill of subnetting and routing.
CO4: Essential protocol of computer notwork.