(b) A router has following CIDR entries :

Subnet No.	Subnet mask	Next hop
128.96.39.0	255.255.255.128	0
128.96.39.128	255.255.255.128	1
128.96.40.0	255.255.255.128	2
192.4.153.0	255.255.255.192	3
Default		4

To which nexthop each of the following addresses will be forwarded :

(i) 128.96.39.10 (ii) 128.96.40.12

(iii) 128.96.40.151 (iv) 192.4.153.17

(v) 192.4.153.90

Show all calculations. 2+2+2+3+3=12

Unit-III

3 (a) Why it is important that two identically numbered TPVs are never outstanding at the same time? What strategies are used to ensure it? Explain. 2+4=6

(b) Show that the three way handshaking used for connection release is immune to failures if

(i) Final Ack lost

(ii) Response to DISCONNECT _REQUEST is lost

(iii) All data except DISCONNECT _ REQUEST is lost. 6

(c) A Client sends a 128 byte request to a server located 100 km away over a 1 gbps link. Compute the efficiency of line during RPC. 4

Or

3. (a) Show that transport layer can recoxer from crash of network layer and not recoxer if transport layer crashes. 8

(b) What factors differentiates the sliding window protocol design used in data link layer and transport layer? Enumerate. 5

(c) Explain the terms "upward multiplexing" and "downward multiplexing" with reference to transport layer. 3

Unit-IV

4 (a) Explain the purpose of function of "window size" field in TCP. Com--ment on the sufficiency of size of the field in a high bandwidth- high delay network environment. 4

(b) Dose TCP use the 3-way handshaking for connection establishment and connection release? Discuss the processes used for the activities. Draw suitable diagrams. 4