

Q1 a) Each Address — 1M  
Example — 1M

b) Each point — 1M

c) Each point — 1M

d) Each Step — 1.5M  
Overall diagram — 0.5M

Q2) a) Each Topology — 1M

b) Explanation — 4M

c) Station type — 1M

Conf. — 1M

Response Mode — 1M

3 frame formats. — 3M

d) Each point — 1M

Q3) a) Example — 2M

Explanation — 2M

b) UDP header — 2M  
UDP explanation — 2M

c) Layer Wise Explanation — 6M

d)

Q8 d)  $205.16.37.39/28$

For above IP address No of host bits = 4  
 $\therefore$  No of host =  $2^4 = 16$  in each subnet.

$205.16.37.39/28$  ... given IP address.

$205.16.37.0/28$  } subnet 1

$205.16.37.15/28$  }

$205.16.37.16/28$  } subnet 2

$205.16.37.31/28$  }

$205.16.37.32/28$  } subnet 3

$205.16.37.47/28$  }

$\therefore$  First IP address =  $205.16.37.32/28$

Last IP address =  $205.16.37.47/28$

$123.56.77.29/27$

No of host bits =  $32 - 27 = 5$   $\therefore$  No of host in each subnet = 32

$123.56.77.0/27$  ... first IP address

$123.56.77.31/27$  Last IP address

Q4 a) Diagram with Explanation — 4M

b) FTP diagram — 1M  
Explanation — 3M

c) Each — 2M

d) TCP header — 2M  
Explanation — 4M

Q5 a) Diagram — 2M  
Explanation — 2M

b) RIP explanation — 4M

c) SSH — 3M

Telnet — 3M.

d) Difference IPv4, IPv6 — 3M.

84.42.58.11 — class A.

195.38.14.13. — class C

144.62.12.9 — class B.