(3Hours) [Total marks 80]

Note: (1) Question No 1 is compulsory
(2) Solve any three from remaining questions.
(3) Assume suitable data if required.

Q.1 (a) Why TCP is not suitable for interactive multimedia traffic, while UDP is. [5]
(b) How iterative resolution differs from recursive resolution in DNS? [5]
(c) Differentiate between Subnetting and Supernetting. [5]
(d) Define network address and network mask. [5]

Q.2 (a) Draw the DHCP packet format. With referenec to this which fields determine [10]

i) The no. of hops a packet can tarvel?

ii) The command is a request or reply?

iii) Why there is a need of transaction Id apart from IP address and port address?

iv) What is the maximum number of seconds that can be stored in the Number of Seconds field of a DHCP packet?

v) Which field determine that the response from the server is unicast or broadcast?

vi) If DHCP packet is request from client, which fields are used?

vii) If DHCP packet is a reply message from server, which fields are used?

(b) Explain how voice is transmitted over packet switched network using H.323. [10]

Q.3(a) Explain the IP datagram header with suitable illustrations. [10]

(b) Explain the various phases of congestion control in TCP with suitable diagram. How the window size is set in each phase. [10]

Q.4 (a) Name the various components of Email system. List the function of them. [10]
Which protocol defines the MTA client and server in internet? [10]

(b) Differntiate between TELNET and SSH.Explain the various components of SSH. [10]

Q.5 (a) What are various scheduling schemes to improve Qos ? Explain any one in brief. [10]

(b)What are the limitations of File Transfer Protocol and how they are overcome in Trivial File Transfer Protocol? [10]

Q.6 (a) What are the special addresses used in classful addressing. Explain any 3 with suitable example. [10]

(b) Explain the connection establishment & termination Process in TCP with suitable diagram. [10]

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