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SEAT No. :

P49

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TE/INSEM/APR-54

T.E. (Information Technology)

314450 : COMPUTER NETWORK TECHNOLOGY

(2015 Pattern) (Semester - II)

Time : 1 Hours]

[Max. Marks : 30

Instructions to the candidates:

- 1) *Answers Q.1 or Q.2, Q.3 or Q.4, Q.5. or Q.6.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right side indicate full marks.*
- 4) *Assume suitable data if necessary.*

Q1) a) What is DHCP? What are it's advantages? explain various messages used in DHCP? **[4]**

b) Consider a class B network 150.160.0.0 with default subnet mask, how can you divide it into 8 equal subnets? **[6]**

How many hosts can be accommodated in each sub-networks? For the 5th subnet, give the IP address. for i) Network ID ii) First usable host iii) Last usable Host iv) Broadcast IP?

OR

Q2) a) Explain the operation of NAT with suitable example. **[4]**

b) What is ARP & RARP? Explain ARP & RARP with the help of diagram. **[6]**

Q3) a) Explain how token bucket algorithm work in case of smooth and bursty traffic. **[4]**

b) What is socket? List & explain the socket primitives in client side & server side TCP connection. **[6]**

OR

Q4) a) List & explain why three timers are required in TCP timer management. **[4]**

b) Explain with neat diagram TCP header format. **[6]**

Q5) a) Explain in brief SMTP protocol. **[4]**

b) What is SNMP? What is the purpose of SMI and MIB in relation to SNMP? **[6]**

OR

Q6) a) List the similarities & difference between POP3 and IMAP. **[4]**

b) What is FTP? Where & when it's used? Why it's require two ports? List & explain any four FTP commands. **[6]**

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P.T.O.

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