



[4459] – 262

Seat No.	
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**T.E. (IT) (Semester – I) Examination, 2013  
COMPUTER NETWORK TECHNOLOGY  
(2008 Course)**

Time : 3 Hours

Max. Marks : 100

- Instructions :** 1) Answers to the **two** Sections should be written in **separate** books.  
2) **Neat** diagrams must be **drawn wherever** necessary.  
3) Assume **suitable** data, if necessary.

SECTION – I

1. A) Explain different duties of network layer. 8  
B) Explain leaky bucket algorithm. 8  
OR
2. A) What is routing ? State different types of routing. Explain two interior gateway routing protocols. 8  
B) What do you mean by congestion ? Explain any two congestion algorithms in virtual subnets. 8
3. A) For a given C class network 210.50.60.0, how will you divide it into 4 equal subnets ? What will be the new subnet mask ? Give the Network and broadcast address of each subnetwork. 8  
B) Explain working of ICMP. Explain any four messages of ICMP. 8  
OR
4. A) Explain working of DHCP in detail with its transition diagram. 8  
B) Differentiate IPV6 over IPV4. 8

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5. A) Explain duties of transport layer and differentiate between connection-oriented and connection-less service. 9  
 B) What is socket ? Explain various socket primitives used in TCP. 9

OR

6. A) Explain various transport layer services. 9  
 B) Explain three way handshake algorithm for TCP connection establishment. 9

### SECTION – II

7. A) Differentiate between POP3 and IMAP. 8  
 B) Differentiate between FTP and TFTP. 8

OR

8. A) What is FTP ? Why it requires two ports ? Explain at least five user commands used in FTP. 8  
 B) Explain two types of messages used in HTTP. 8

9. A) Explain different limitations of best effort services. 8  
 B) Explain in detail any one protocol used for real time interactive application. 8

OR

10. A) Explain any two algorithms for scheduling. 8  
 B) Explain RTSP protocol. What is the need of this protocol ? 8

11. A) Explain different layers used in ATM. 9  
 B) Explain Fast Ethernet in detail. 9

OR

12. Write short note on **any three** : 18

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|-----------------|--------------|
| 1) Wireless LAN | 2) Bluetooth |
| 3) Frame relay  | 4) B-ISDN.   |