

[07 – 4121]

IV/IV B.Tech. DEGREE EXAMINATION.

First Semester

Computer Science Engineering

COMPUTER NETWORKS

(Effective from the admitted batch of 2006–2007)

Time : Three hours

Maximum : 70 marks

Question No. 1 is compulsory.

Answer any FOUR questions from the remaining.

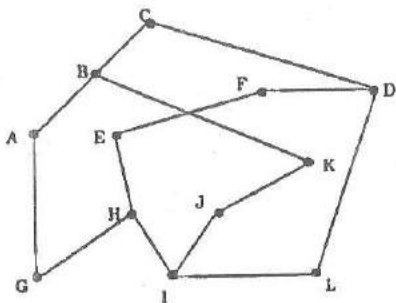
All questions carry equal marks.

Answer all parts of any question at one place.

1. Answer the following in brief :

- (a) Circuit switching
- (b) Cellular networks
- (c) Effects of congestion
- (d) Internetworking
- (e) SNMP
- (f) Routing
- (g) Electronic mail.

2. What is packet switching? Explain about packet switching networks and its principles.
3. (a) Explain Congestion. How do we control the same? Practically, which packets are used for this purpose and at what layer this is done? (10)
- (b) What is the difference between flow control and congestion control? (4)
4. Give the format of UDP segment and TCP segment. Explain when UDP is preferred to TCP.
5. (a) For a hierarchical routing with 4800 routers, what region and cluster sizes should be chosen to minimize the size of routing table for a three - layer hierarchy?
- (b) Compute a multicast spanning tree for router C in the subnet below for a group with member at routers A, B, C, D, E, F, I and K.



6.
 - (a) Draw and explain the structure of ATM adaptation layer.
 - (b) Explain about reliable sequencing network service.

7.
 - (a) What is SMTP? How does it useful to send e-mails? Explain.
 - (b) Discuss about IEEE 802.11 architecture and its services.

8. Write short notes on the following :
 - (a) Internet protocols
 - (b) Transmission media
 - (c) Layer 2 and Layer 3 switches.