G 6146

M.E. DEGREE EXAMINATION, MAY/JUNE 2007.

Elective

Communication Systems

CO 1627 — NETWORK ROUTING ALGORITHMS

(Common to M.E.-Digital Communication and Network Engineering)

(Regulation 2005)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What do you mean by last-chance trunk reservation?

2. What are the advantages of DAR?

3. What is the importance of the virtual cut-trough mode?

4. Write down the mandatory path attributes in BGP.

5. Illustrate diagrammatically the relations of topology update and tree-maintenance routines.

6. What is the role of topologies in Deflection Networks?

7. What are the advantages of CDMA systems?

8. How will you compute the throughput for a packet radio network?

9. What are the advantages and disadvantages of Table-driven routing algorithms?

10. How will you specify the Quality of Service parameters in TORA?

PART B — (5 × 16 = 80 marks)

11. (a) Explain the DAR scheme for a fully connected network. (16)

Or

(b) Explain with an example the Distributed adaptive Dynamic Routing. (16)

12. (a) (i) Assume that for OSPF updates occur every 30 minutes an update packet can carry three Link State Advertisement (LSAs), and each LSA is 36 bytes long. Estimate the bandwidth in advertising one LSA. (5)

(ii) Identify elements where OSPF and BGP are similar and elements where they differ. Explain the reasons for similarity and difference. (11)

Or

(b) Explain in detail the Apple Talk routing. (16)

13. (a) Discuss the principles of routing in Multihop Optical networks. (16)

Or

(b) Write short notes on :

(i) ATM address structures. (8)

(ii) Deflection Routing. (8)

14. (a) Explain the mechanisms for Mobility management in cellular Networks. (16)

Or

(b) Discuss any two digital cellular standards. (16)

15. (a) Discuss in detail the Destination Sequenced Distance Vector routing (DSDV). What are the differences between Distance Vector Routing and DSDV? (16)

Or

(b) Write notes on :

(i) CGSR. (6)

(ii) AODV. (10)
