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10CS64

**Sixth Semester B.E. Degree Examination, June/July 2016**  
**Computer Networks – II**

Time: 3 hrs.

Max. Marks: 100

**Note: Answer any FIVE full questions, selecting  
atleast TWO questions from each part.**

**PART – A**

- 1
  - a. Differentiate between connection oriented and connectionless services. (04 Marks)
  - b. Define routing algorithm. Explain the Bellman – Ford algorithm with an example. (10 Marks)
  - c. A 64 – kilobyte message is to be transmitted over two hops in a network. The network limits packets to a maximum size of 2 kilobytes, and each packet has a 32 – byte header. The transmission lines in the network are error free and have a speed of 50 Mbps. Each hop is 1000 km long. How long does it take to get the message from source to destination? (06 Marks)
- 2
  - a. With neat diagram explain leaky bucket algorithm used for policing. (08 Marks)
  - b. Explain the FIFO and priority queue scheduling for managing traffic at packet level. (08 Marks)
  - c. Write a note on closed loop control in packet switching network. (04 Marks)
- 3
  - a. Explain the format of IPV4 basic header. (08 Marks)
  - b. With neat diagram, explain UDP datagram. (08 Marks)
  - c. Write a note on address resolution protocol. (04 Marks)
- 4
  - a. Explain the three – way handshake for establishing a TCP connection. (08 Marks)
  - b. Write a note on RIP protocol. (04 Marks)
  - c. Explain the border gateway protocol. (08 Marks)

**PART – B**

- 5
  - a. Define domain name system. Explain DNS message format. (08 Marks)
  - b. Explain in detail any two major categories of threats to network security. (08 Marks)
  - c. Write a note on network management system. (04 Marks)
- 6
  - a. Explain the overview of differentiated services operation of QOS with neat diagram. (08 Marks)
  - b. Explain multiprotocol Label switching (MPLS) and its packet format. (06 Marks)
  - c. Write a note on P2P connection in context with overlay networks. (06 Marks)
- 7
  - a. Define data compression. Explain overview of digital voice process in multimedia networking. (08 Marks)
  - b. Explain in brief SIP. (08 Marks)
  - c. Write a short note on H.323 protocol. (04 Marks)
- 8
  - a. Explain types of attack in Ad-hoc networks. (06 Marks)
  - b. Explain LEACH clustering protocol in wireless sensor network. (08 Marks)
  - c. Write a note on Zig-Bee technology. (06 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank part of the paper. 2. Any revealing of identification, appearance of evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.