Sixth Semester B.E. Degree Examination, May/June 2010
Computer Networks – II
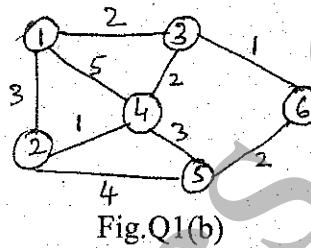
Time: 3 hrs.   Max. Marks:100

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

PART – A

1 a. Explain and derive delays in datagram packet switching.   **(10 Marks)**
   b. Consider the network given below in Fig.Q1(b). Use the Dijkstra's algorithm to find shortest paths from all nodes to destination node 2.   **(10 Marks)**

Fig.Q1(b)

2 a. Explain the FIFO and priority queue scheduling for managing traffic at packet level.
                                                                                  (10 Marks)
   b. Explain the leaky bucket algorithm for policing the traffic at flow level.   **(10 Marks)**

3 a. Explain the IP address classification. Identify the following IP addresses and their address class:
      200.58.20.165   128.167.23.20   16.196.128.50   150.156.10.10   **(10 Marks)**
   b. Give the format of IPV6 basic header. Explain the importance.   **(10 Marks)**

4 a. Explain the OSPF protocol and its operation.   **(10 Marks)**
   b. Give the structure of ATM cell header and details of QOS parameters.   **(10 Marks)**

PART – B

5 a. Which are the different data types used in the structure of management information?
                                                                                  (10 Marks)
   b. Give the comparison between public key and secret key crypto graphic systems. **(10 Marks)**

6 a. Explain VPN and its types based on tunneling.   **(10 Marks)**
   b. Explain the need for overlay networks and P2P connection.   **(10 Marks)**

7 a. Explain the JPEG compression method and still image processing.   **(10 Marks)**
   b. Explain the session initiation protocol.   **(10 Marks)**

8 a. With an example, explain the dynamic source routing protocol.   **(10 Marks)**
   b. List the security issues in ad-hoc networks. Explain types of attacks.   **(10 Marks)**

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Sixth Semester B.E. Degree Examination, December 2010
Computer Networks - II
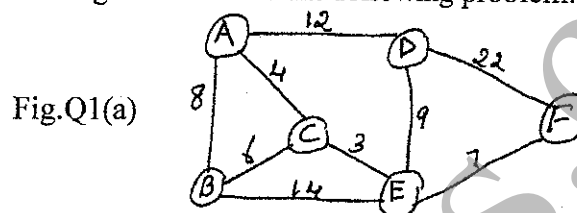
Time: 3 hrs.   Max. Marks:100

Note: *Answer any FIVE full questions, selecting atleast TWO*
questions from Part – A and Part - B.

PART – A

1 a. Explain Dijkstra's algorithm. Solve the following problem.   **(10 Marks)**

   Fig.Q1(a)

   b. Differentiate between virtual circuit and data grams. Explain routing table of both. **(10 Marks)**

2 a. Explain in detail about TLP architecture.   **(08 Marks)**
   b. Define the following terms : i) End – to – End delay   ii) Jitter   iii) Buffers
      iv) Queue scheduling.   **(08 Marks)**
   c. Write a short note on random early deduction.   **(04 Marks)**

3 a. Explain the network addressing of 1PV6.   **(08 Marks)**
   b. With a neat diagram, explain UDP datagram.   **(06 Marks)**
   c. Explain internet group management (IGMP) protocol.   **(06 Marks)**

4 a. What are the six QoS performance parameters in ATM?   **(06 Marks)**
   b. With a neat diagram, explain ATM cell header format.   **(08 Marks)**
   c. Explain BISDN reference model.   **(06 Marks)**

PART – B

5 a. Explain TLS protocol.   **(10 Marks)**
   b. Differentiate between DES and RSA.   **(05 Marks)**
   c. List the types of security services.   **(05 Marks)**

6 a. Explain in detail the leaky bucket traffic shaping algorithm.   **(10 Marks)**
   b. Explain the resource reservation protocol.   **(06 Marks)**
   c. Write the parameters for classifying the resource allocation scheme. **(04 Marks)**

7 a. Explain the Raw – Image sampling and DCT.   **(10 Marks)**
   b. Explain Shannon's coding theorem in detail.   **(10 Marks)**

8 a. Briefly explain the classification of routing protocol.   **(06 Marks)**
   b. With a neat sketch, explain the concept of clustering in sensor networks. **(06 Marks)**
   c. Differentiate between Intra cluster and Inter cluster routing protocols. **(08 Marks)**

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