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06CS64

# Sixth Semester B.E. Degree Examination, December 2012
## Computer Networks – II

Time: 3 hrs. Max. Marks:100

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



### PART – A

1 a. Explain and derive delays in datagram packet switching and compare it with message switching. **(10 Marks)**

b. Consider the network given below in Fig.Q.1(b). Use Dijkstra's algorithm to find shorted paths from source node 5 to all other destination nodes. Find the shortest path tree from node 5 to other nodes. **(10 Marks)**

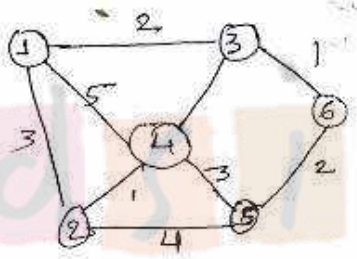


Fig.Q.1(b)

2 a. Explain Fair queuing and weighted fair queuing mechanism of traffic management at the packet level. **(10 Marks)**

b. A host in on organization has on IP address 150.32.64.34 and subnet mask 255.255.240.0. What is the address of the subnet? What is the range of IP addresses that a host can have on this subnet? **(10 Marks)**

3 a. Explain IPv6 basic header format. **(10 Marks)**

b. Explain OSPF common header fields and also OSPF hello packet format. **(10 Marks)**

4 a. Explain BISDN reference model. **(06 Marks)**

b. Explain ATM cell header format. **(07 Marks)**

c. Briefly explain various QoS parameter and traffic descriptors with respect to ATM networks. **(07 Marks)**

## PART – B

5 a. Write a note on structure of management information. **(08 Marks)**

b. Apply RSA and do the following:

i) Suppose P = 5, q = 11 find e and d.

ii) Encrypt the following to get the cipher texts $P_1 = 18$, $P_2 = 19$ and $P_3 = 1$.

iii) Decrypt the cirphertaxts obtained above. **(12 Marks)**

6 a. Explain VPN and its types based on tunneling. **(07 Marks)**

b. Explain the various types of resource allocation schemes. **(06 Marks)**

c. Write a note on overlay networks. **(07 Marks)**

7 a. Explain the session initiation protocol. **(10 Marks)**

b. Explain Shannon's coding theorem in detail. **(10 Marks)**

8 a. Write a note on the types of attacks in Ad-hoc networks. **(06 Marks)**

b. Differentiate between intracluster and intracluster protocols for WSN. **(07 Marks)**

c. Write a short note on Zigbec technology. **(07 Marks)**

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