USN |___|___|___|___|___|___|___|___|___|___| **10CS64**

Sixth Semester B.E. Degree Examination, Dec.2016/Jan.2017
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. What is virtual–circuit packet switching? Explain. **(06 Marks)**
   b. List and explain the goals of routing algorithms. **(06 Marks)**
   c. Explain Bellman-Ford algorithm with example. **(08 Marks)**

2 a. Describe the FIFO and priority queues. **(06 Marks)**
   b. What is weighted fair queuing? Explain. **(06 Marks)**
   c. Explain Dijkstra's algorithm. Find the shortest path for the below network using Dijkstra's algorithm. **(08 Marks)**
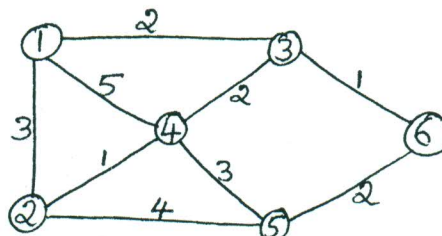

Fig. Q2(c)

3 a. Explain TCP/IP architecture with neat diagram. **(10 Marks)**
   b. Describe the IPV6 header format with neat diagram. **(10 Marks)**

4 a. What is OSPF? Explain OSPF operations with aid of diagram. **(10 Marks)**
   b. Explain multicast routing with example. **(10 Marks)**

PART – B

5 a. What is the purpose of network management? Explain the characterization of network management. **(06 Marks)**
   b. Consider a plaintext message m = 9, get the cipher-text message by using RSA algorithm. Assume that a = 3, b = 11. Also find the public and private keys. **(06 Marks)**
   c. What is DNS? Also explain the domain name space and DNS message format. **(08 Marks)**

6 a. Explain the queuing model of leaky – bucket traffic shaping algorithm. **(06 Marks)**
   b. Give the significance of differentiated services of QoS. **(06 Marks)**
   c. What are VPNs? Explain the types of VPNs and benefits of VPNs. **(08 Marks)**

7 a. What is signal sampling? Explain the sampling process with the types of signal samplings. **(06 Marks)**
   b. Explain the SIP components with neat diagrams. **(06 Marks)**
   c. Explain the different lossless compression methods with example. **(08 Marks)**

8 a. Explain the different table driven routing protocols used in Ad-hoc networks. **(10 Marks)**
   b. Explain DEEP clustering protocol algorithm. **(10 Marks)**

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