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BMS College of Engineering, Bangalore-560019

(Autonomous Institute, Affiliated to VTU, Belgaum)

MAY/JUNE 2013 Semester End Main Examinations

Course: Computer Networks

Course Code: 10CI6GCCON

Duration: 3 hours

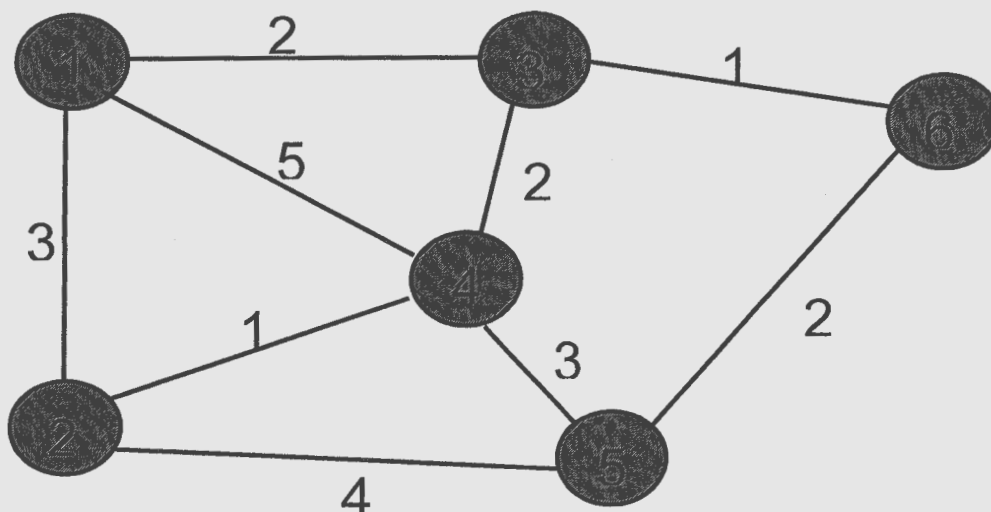
Max Marks: 100

10.06.2013

Instructions: Answer FIVE full questions choosing at least one full question from each unit.

UNIT - 1

1. a. What are the main functions of packet switch? Explain the components of a generic packet switch along with a neat diagram. 10
- b. Consider the network in Figure. 10
 - a. Use the Bellman-Ford algorithm to find the set of shortest paths from all nodes to destination node 2.
 - b. Now continue the algorithm after the link between node 2 and 4 goes



UNIT - 2

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| 2. | a. | What is policing? Explain the concept on which policing devices are based on, with an algorithm and behavior. | 08 |
| | b. | What is closed-loop control? Explain its variants. | 06 |
| | c. | With an example explain weighted fair queuing. | 06 |

OR

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|----|----|--|----|
| 3. | a. | With neat sketch explain TCP state transition diagram. | 08 |
| | b. | Discuss IP addressing with an example. | 07 |
| | c. | Explain RIP with message format. | 05 |

UNIT - 3

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|----|----|--|----|
| 4. | a. | How describe the rules for representing the objects in S M I ? With an example, explain object identifier tree for Internet. | 07 |
| | b. | Explain the cryptographic checksums and hashes available. | 07 |
| | c. | Explain the non preemptive priority queue scheme for integrated service approach. | 06 |

OR

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|----|----|--|----|
| 5. | a. | Explain the TLS handshake protocol process. | 07 |
| | b. | How is resource allocation processed in ATM networks? | 07 |
| | c. | How is peer-to-peer connection maintained in overlay networks? | 06 |

UNIT 4

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| 6. | a. | Discuss the need of data compression. Explain JPEG compression technique in detail | 10 |
| | b. | Explain the operation of VOIP and its protocols | 05 |
| | c. | Explain the RTP and RTCP protocols | 05 |

UNIT-5

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| 7. | a. | Explain Ad-hoc on Demand distance vector protocol overview of algorithm. | 02 |
| | b. | Explain the structure of typical sensor node. | 06 |
| | c. | . Write a note on Zigbee technology | 04 |
