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BMS College of Engineering, Bangalore-560019

(Autonomous Institute, Affiliated to VTU, Belgaum)
MAY/JUNE 2013 Semester End Make Up Examinations

Course: Computer Networks
Course Code: 10CI6GCCON

Duration: 3 hours
Max Marks: 100
Date:05.07.2013

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

UNIT - 1

1. a. Illustrate with a neat diagram the components of a generic packet switch and line card organization of the packet switch approach.   10

   b. with neat diagrams explain: 10
      i. Hierarchical routing
      ii. Flooding

UNIT - 2

2. a. Explain the FIFO and Priority queue scheduling for managing traffic at packet level.   08

   b. With the help of diagram, explain the token bucket traffic shapes for congestion control.   06

   c. Explain IPV4 packet format.   06

OR

3. a. Explain the format of TCP Segment along with Pseudo header.   08

   b. A host in an organization has an IP address 150.32.64.34 and a subnet mask 255.255.240.0 What is the address of this subnet? What is the range of IP address that a host can have on this subnet?   04

   c. Explain internet group management protocol.   08

UNIT - 3

4. a. Explain the Structure of Management Information(SMI) and Management Information Base(MIB) in network management.   08

   b. Explain RSA algorithm for encryption and decryption.   06

   c. Using the RSA algorithm, Encrypt the following: 06
      a. p=3, q=11, e=7, P=12
      b. p=7, q=11, e=17, P=25
      c. Find the corresponding ds for a and b and decrypt the ciphertexts.

OR

5. a. Explain the operation of fair queuing scheduler in context with packet scheduling of integrated service.   06

   b. Explain the classification of Resource Allocation Schemes.   06

   c. What is VPN? Explain different types of VPNs.   08

UNIT 4

6. a. What is the need for data compression? Explain digital voice processing.   07

   b. List lossless compression methods. Explain anyone with an example.   06

   c. Give SCTP packet structure and discuss different types of chunks.   07

UNIT-5

7. a. With an example Explain the Dynamic Source Routing protocol   08

   b. Explain wireless Sensor node structure   07

   c. write short notes on Zigbee Technology.   05

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