USN [| | | | | | | | | |]   06CS64

Sixth Semester B.E. Degree Examination, June/July 2017

Computer Networks – II

Time: 3 hrs.   Max. Marks:100

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

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

PART – A

1 a. Explain connectionless packet switching, illustrating delays incurred. **(06 Marks)**
 b. Differentiate between static and dynamic routing algorithms. **(04 Marks)**
 c. Explain Dijkstra's algorithm with an example. **(10 Marks)**

2 a. Discuss end-to-end versus hop-by-hop congestion control technique. **(04 Marks)**
 b. Explain:
  i) IP address classification,
  ii) Internet control message protocol. **(10 Marks)**
 c. A university has 150 LANs with 100 hosts in each LAN. Design an appropriate subnet addressing scheme if the university has one class B address. **(06 Marks)**

3 a. Write a note on:
  i) Dynamic host configuration protocol,
  ii) IPv6 header format. **(08 Marks)**
 b. Explain the format of internet group management protocol. **(04 Marks)**
 c. With a neat diagram, explain the format of transmission control protocol (TCP) segment. **(08 Marks)**

4 a. With neat diagram, explain the broadband ISDN reference model. **(10 Marks)**
 b. Write notes on:
  i) ATM addressing
  ii) Private network to network interface signaling (PNNI) **(10 Marks)**

PART – B

5 a. Explain the simple network management protocol format. **(10 Marks)**
 b. With a neat diagram, describe the working of data encryption standard (DES) with examples. **(10 Marks)**

6 a. Explain:
  i) Integrated services QoS
  ii) Differentiated services QoS. **(10 Marks)**
 b. Write notes on:
  i) Virtual private networks
  ii) Overlay networks. **(10 Marks)**

7 a. With a neat diagram, explain the process of JPEG compression for still image JPEG. **(10 Marks)**
 b. Explain the RTP (Real-Time Transport) packet header with diagram. **(10 Marks)**

8 a. Explain different clustering protocols used in sensor networks. **(12 Marks)**
 b. Write a note on Zigbee technology. **(08 Marks)**

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