G 6180

M.E. DEGREE EXAMINATION, MAY/JUNE 2007.

Second Semester

Computer Science and Engineering

CS 1652 — COMPUTER NETWORKS

(Regulation 2005)

: Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

What is a Transceiver?

State the difference between THT and TRT.

What is a logical IP subnet?

Give the significance of Knockout switch.

List out the five ATM service classes.

State the advantages of three way handshake.

Give the three types of cryptographic algorithms.

What is message integrity code?

List the various network performance indicators.

Differentiate Masquerede and evesdropping.

PART B — (5 × 16 = 80 marks)

Explain in detail the implementation of sliding window protocol.   (16)

Or

Explain how collision is avoided in Wireless Networks.   (8)

Explain the concept of Token ring (802.5, FDDI).   (8)

12. (a) Explain the virtual circuit switching technique in detail with an example. (16)

Or

(b) (i) Explain the various layers of ATM cell switching. (10)

   (ii) List out the limitations of bridges. (6)

13. (a) Explain the following congestion avoidance mechanisms : (8 + 8)

   (i) DEC bit

   (ii) Random Early Detection (RED).

Or

(b) (i) Explain the Bulk transfer (BLAST) algorithm in detail. (12)

   (ii) Give a note on Latency and Throughput. (4)

14. (a) (i) Explain how DES encrypts 64 bit block of plain text using 64 bit key? (12)

   (ii) Narrate the role played by the Name Servers. (4)

Or

(b) (i) Explain the Real Time Protocol (RTP) used for multimedia applications? (10)

   (ii) Explain the limitations of firewalls. (6)

15. (a) (i) Draw the functional architecture of Network Monitoring and explain. (12)

   (ii) Give the significance of Simple Network Management Protocol (SNMP). (4)

Or

(b) (i) Explain in detail the security threats for an active network and passive network. (10)

   (ii) Give a note on the structure of MIB. (6)

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