A 1160

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2007.

Seventh Semester

Computer Science and Engineering

CS 431 — NETWORK PROTOCOLS, MANAGEMENT AND SECURITY

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is availability of networks?

2. List out the data types defined for SNMP management information system.

3. Give the structure of SNMPv2 message.

4. What are the design goals of RMON?

5. Mention the strength of DES.

6. Specify the authentication requirements.

7. What are the applications of IPsec?

8. What is the purpose of dual signature?

9. Mention the subsidiary task forces for internet.

10. What are the key features of X.25 approach?

PART B — (5 × 16 = 80 marks)

11. (a) (i) Discuss about the architecture and implementation of network monitoring. (8)

(ii) Explain the OSI management functional areas in detail. (8)

Or

(b) Describe the structure of SNMPv2 Management information base and its use. (16)

12. (a) (i) Explain any two groups in RMON. (8)

(ii) Describe the new functional features in RMON2. (8)

Or

(b) (i) Discuss the security features designed in SNMP. (8)

(ii) Explain the practical issues in SNMP. (8)

13. (a) (i) Explain the key generation process of DES. (8)

(ii) Draw and explain the design of a public key crypto system for authentication. (8)

Or

(b) (i) What are the elements designed in MIME? Explain. (8)

(ii) Discuss the entries of a private-key ring used in PGP session. (8)

14. (a) (i) Draw and explain the architecture for SSL. (8)

(ii) Discuss the design principles of firewall. (8)

Or

(b) (i) Explain the different types of firewall. (8)

(ii) Write note on Transport layer security. (8)

15. (a) Discuss about Bluetooth architecture, applications and protocol stack. (16)

Or

(b) (i) Explain the ATM logical connections and its advantages. (10)

(ii) Compare and contrast the features of frame relay and ATM. (6)
