

**Y 3009**

M.C.A. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2006.

*Elective*

CA 039 – NETWORK PROTOCOLS AND MANAGEMENT

(Regulation – 2002)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Does frame relay suitable for real-time data transfer?
2. What are the three categories of services provided by ISDN?
3. Differentiate in-band and out-band signaling.
4. Define sustainable cell rate.
5. List the layer of ATM protocol stack.
6. Name four authentication techniques.
7. Define vulnerability.
8. List down the challenges of network management.
9. Define ASN.1.
10. Name four network management tools.

PART B — (5 × 16 = 80 marks)

11. (a) (i) Discuss the frame relay architecture in detail. (8)  
(ii) Explain the principles of ISDN in detail. (8)

Or

- (b) (i) Describe the subscriber access channels and functional grouping of ISDN. (10)  
(ii) Distinguish between Frame Relay and X.25 protocols. (6)
12. (a) (i) Describe the ATM service categories in detail. (8)  
(ii) List and explain the ISDN supplementary services. (8)

Or

- (b) (i) Explain the ATM traffic management and traffic descriptors. (6)  
(ii) What is meant by congestion? Explain the reactive congestion control mechanisms of ATM? (10)
13. (a) (i) List down the characteristics of a good encryption technique. (6)  
(ii) Explain the Data Encryption Standard with a neat block diagram. (10)

Or

- (b) (i) Compare private and public encryption methods. (6)  
(ii) Write and explain the RSA Encryption method in detail. (10)
14. (a) (i) Explain the functionalities of the network management functional model. (8)  
(ii) Write short notes on SNMPv2 MIB. (8)

Or

- (b) (i) Write short notes on network management standards. (6)  
(ii) Discuss in detail the SNMP architecture. (10)

15. (a) (i) Explain the major changes in SNMPv2 over SNMPv1. (8)  
(ii) Explain remote monitoring MIB groups and its functions. (8)

Or

(b) Write short notes on the following :

- (i) RMON (5)  
(ii) CMIP (5)  
(iii) Command generator of SNMPv3. (6)
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