

**Y 3022**

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

Second Semester

CA 141 — COMPUTER COMMUNICATION AND NETWORKS

(Regulation 2002)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Name two data link layer protocols.
2. What is MANET?
3. Define bridge.
4. What is CSMA/CD?
5. What is tunneling?
6. What is meant by MTU of a network?
7. What is upward multiplexing?
8. What is silly window syndrome?
9. What is the use of ARP protocol?
10. Give the port address of telnet and ftp.

PART B — (5 × 16 = 80 marks)

11. (a) (i) Discuss the various transmission impairments in computer networks. (6)
- (ii) Explain sliding window protocol with example. (10)

Or

- (b) (i) Explain direct sequence spread spectrum. (10)
- (ii) Write short notes on wireless networks. (6)
- 12. (a) (i) Explain IEEE 802.3 standard in detail. (10)
- (ii) Differentiate between token ring and FDDI. (6)

Or

- (b) (i) Discuss the various design issues of MAC sublayer. (6)
- (ii) Explain IEEE 802.11 standard in detail. (10)
- 13. (a) (i) Discuss the various congestion control techniques. (8)
- (ii) Explain ICMP and its messages. (8)

Or

- (b) (i) Discuss the routing techniques used in Internet. (10)
- (ii) Explain the X.25 frame format. (6)
- 14. (a) (i) How is connection management done in TCP? Discuss. (8)
- (ii) Explain the TCP segment format. (8)

Or

- (b) (i) How is congestion control done in TCP? (8)
- (ii) Explain the UDP pseudoheader and its use. (8)
- 15. (a) (i) Discuss the various design issues of presentation layer. (8)
- (ii) Discuss about telnet and rlogin. (8)

Or

- (b) (i) Explain SHA-1 security algorithm. (10)
- (ii) Describe SMTP. (6)