

C 3268

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

Fifth Semester

Information Technology

IT 1351 — NETWORK PROGRAMMING AND MANAGEMENT

(Regulation 2004)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define sockets and list out its type.
2. What is the use of bind () system call?
3. Write about poll function
4. Write the syntax for select function.
5. What is the function of gethostbyname ()?
6. Write ICMP message format and two message type.
7. What do you mean by threaded server?
8. Differentiate between ping and trace route program.
9. Define PDU.
10. In what way RMON is related to SNMP protocol?

PART B — (5 × 16 = 80 marks)

11. (a) Explain the TCP/IP layering in detail with neat sketch. (16)

Or

- (b) (i) Explain the following system calls in detail (4 × 2 = 8)
- (1) Connect
 - (2) Listen
 - (3) Read
 - (4) Socket.
- (ii) Compare Iterative server and concurrent server. (8)
12. (a) Write a TCP socket program to implement a Echo server / Echo client (16)

Or

- (b) Explain the following concept with suitable example. (4 × 4 = 16)
- (i) Shutdown function
 - (ii) Server host crashes
 - (iii) Input output models
 - (iv) Posix signal.
13. (a) (i) Discuss about IP socket option and ICMP socket options in detail with suitable example. (8)
- (ii) Write the similarities between UDP socket, TCP socket and Raw socket (8)

Or

- (b) Briefly discuss about DNS with an example. (16)
14. (a) (i) Compare IPv4 and IPv6. (6)
- (ii) Explain about thread creation and termination with suitable example. (6)
- (iii) Write note on mutexes. (4)

Or

- (b) Explain the trace route program with sample code and example. (16)

15. (a) Explain the architecture of SNMPV3 with neat diagram. (16)

Or

(b) (i) Compare SNMPV2 and SNMV3. (6)

(ii) Write note on RMON. (4)

(iii) Discuss about MIB. (6)
