Reg. No. : | | | | | | | | | | | |

R 3412

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2007.

Sixth 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. What do you mean by a socket abstraction?
2. How shall local and remote socket addresses be obtained.
3. Name the different I/O models.
4. State where POSIX signal handling is used.
5. Write about different IP socket options.
6. What do you mean by Domain Name System?
7. How shall a thread be created and terminated?
8. Mention the purpose of the ping program.
9. Give the different Network Management functions.
10. Where does Remote Monitoring used in a Network?

PART B — (5 × 16 = 80 marks)

11. (a) (i) Explain in detail about TCP/IP protocols for Internetworking and Management. (10)

(ii) Write notes on Iterative Server and Concurrent Server Operations. (6)

Or

(b) (i) Describe about socket address structures and conversion functions with byte ordering. (8)

(ii) Explain about socket, connect, bind, listen and accept functions. (8)

12. (a) (i) Create a TCP socket for acting as a multiple servers and echoing the information from the Client. (10)

(ii) Write notes on Server Process Crash and Server host crash process. (6)

Or

(b) (i) Explain in detail the different I/O multiplexing Models. (10)

(ii) Brief about select function and shut down functions. (6)

13. (a) (i) Describe about the different socket options for Internet operation and control. (10)

(ii) Discuss IPv6 support in Domain Name System? (6)

Or

(b) (i) Explain the purpose and usage of UDP sockets and their different functions. (10)

(ii) Brief the way in which a TCP client server different from UDP client server. (6)

14. (a) (i) Elaborate about raw sockets creation, input and output. (10)

(ii) Mention the purpose of trace route program. (6)

Or

(b) (i) Explain how a TCP echo server using threads is created and also give their advantages. (10)

(ii) Write a short note on mutexes and condition variables. (6)

15. (a) Explain the architecture of SNMP entity and traditional SNMP manager, as specified in RFC2271.

Or

(b) (i) What is meant by trap-directed polling? Discuss. (6)

(ii) Explain in detail the proxy configuration. (6)

(iii) List the limitations of SNMP. (4)