A 1314

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

Sixth Semester

Information Technology

IF 361 — TCP/IP AND SOCKET PROGRAMMING

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Specify the range of class B address.

2. List ICMP services.

3. Differentiate UDP and TCP.

4. Specify the port numbers assigned for HTTP and SNMP.

5. What are the different metrics used in the routing protocol?

6. Specify the steps involved in the three way handshake protocol.

7. Draw the socket address structure for internet.

8. What do you meant by out of band data?

9. Draw the block schematic of TLI implementation.

10. Mention the protocols used in the application layer of OSI model.

PART B — (5 × 16 = 80 marks)

11. (a) Consider a corporate network with IP address 122.20.0.0. Create six subnet works and connect eight systems to each sub network. Assign IP address and subnet mask for all the subnet works and the systems.

Or

(b) Discuss in detail about the packet structure and operation of ARP and RARP.

12. (a) Draw TCP message format and discuss its function.

Or

(b) Explain the operation of TCP sliding window protocol.

13. (a) Discuss the behavior of TCP finite machine with its detailed diagram.

Or

(b) Compare Link state routing protocols with Distance vector routing protocols.

14. (a) Discuss various socket system calls with example.

Or

(b) Discuss TLI function call for connection oriented and connectionless protocol with its neat diagram.

15. (a) Write a program for chat server client model using TCP.

Or

(b) Write a program for echo server client model using TCP and UDP.

A 1314