

# ***B.Tech. Degree VIII Semester Examination May 2003***

## **IT/CS 803 INTERNET WORKING (1999 Admissions)**

Time: 3 Hours

Maximum Marks: 100

- I. (a) What are the uses of TCP/IP? (5)
- (b) Explain different layers of TCP/IP Layer Model. Explain the functions of each layer. (15)
- OR**
- II. (a) Describe the structure of TCP/IP software in an operating system. (10)
- (b) What are IP gateways? What is the need for it? (10)
- III. (a) Why buffer management is needed in Network Interface Layer and explain the common issues in buffer management? (13)
- (b) Implement demultiplexing code for incoming packets. (7)
- OR**
- IV. (a) List the general rules for ARP software design. (8)
- (b) Describe ARP packet format. What all data structures are required for the ARP cache? (12)
- V. (a) What is TCB? Explain allocation and deallocation of a TCB. (10)
- (b) How does TCP provide a reliable transport? Explain TCP segment format. (10)
- OR**
- VI. (a) Explain TCP Finite State Machine and State Transition diagram. (10)
- (b) Explain TCP Timer Management. (10)
- VII. (a) Explain the terminology and concepts of a client server model. (12)
- (b) Write the TCP client Algorithm. (8)
- OR**
- VIII. (a) Explain major system calls used with sockets. (10)
- (b) What are the procedures for establishing a TCP session and closing a TCP session? (10)
- IX. (a) What functionality is provided to an NFS server by the mount protocol? (10)
- (b) Describe the process involved in an RPC function call. (10)
- OR**
- X. (a) Write down the algorithm for iterative connection oriented server and iterative connectionless server. (14)
- (b) What are the advantages of concurrency in clients? (6)

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