Exam. Code : 206703

Subject Code : 3682

M.Sc. Computer Science 3rd Semester

NETWORKING PROGRAMMING

Paper : MCS-305

Time Allowed—3 Hours]   [Maximum Marks—100

Note :— Attempt **five** questions in all. All questions carry equal marks.

1. Draw and explain Internet socket address structure in respect to UNIX Network Operating System.   20

2. Discuss following concepts :

   (a) Protocol independence and its programming.

         10

   (b) Super servers, their functions and implementation.

         10

3. (a) Discuss the process of TCP connection establishment and termination.

   (b) Overview of OSI model.   20

4. Discuss following :

   (a) TCP port numbers and corresponding services.

         10

   (b) Wrapper functions and error handling.   10

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5. Discuss the concept of concurrent servers and need/role of signal handling in concurrent service provisions. 20

6. Discuss following topics :

    (a) TCP socket system calls and their functions.

    10

    (b) Protocol usage by common Internet applications.

    10

7. What do you understand by following :

    (a) TCP client-server communication. 10

    (b) Socket options ? 10

8. (a) Describe interoperability of IPv4 and IPv6. 10

    (b) Write and explain basic name and addressing conventions in socket/network programming.

    10