

Code: 06MC303

MCA - III Semester Supplementary Examinations, January 2013

**UNIX NETWORK PROGRAMMING**

(For students admitted in 2007 & 2008 only)

Time: 3 hours

Max Marks: 60

Answer any FIVE questions  
All questions carry equal marks

\*\*\*\*\*

- 1 (a) Write notes on file handling utilities.  
(b) Describe the purpose of the following commands with examples:  
mount, find, cut, tee, cmp and awk.
- 2 (a) Write a shell script to find out the number of lines, number of words and characters count in a file.  
(b) What are the responsibilities of a shell?
- 3 (a) Write a program to copy standard input to standard output using fgets and fputs.  
(b) Give the syntax of the following functions and mention their purpose.  
chmod, chown, link and symlink.
- 4 (a) What are the ways a process can terminate normally?  
(b) Explain interrupted system calls.
- 5 (a) Differentiate between pipes and FIFOs.  
(b) Explain the usage of semaphores for IPC.
- 6 (a) List the system limits that affect message queues.  
(b) Write a client/ server communication program using message queues.
- 7 (a) Write the UNIX APIs for semaphores.  
(b) Describe how to build a linked list of data objects in a shared memory segment.
- 8 What is a socket? Explain the socket system calls for connectionless protocol in detail.

\*\*\*\*\*