

Code No: A2502

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

M.TECH I Semester Examinations, April/May-2012

UNIX NETWORK PROGRAMMING

(SOFTWARE ENGINEERING)

Time: 3hours

Max.Marks:60

Answer any five questions

All questions carry equal marks

- - -

1. a) What is a Shell? Explain the responsibilities of a Shell.
b) List and explain various Filters in Unix.
c) Write a short note on shell meta characters.
2. a) Explain in detail about Unix file structure with neat diagram.
b) Write a C program that illustrates uses of open(), read(), write() and close() APIs.
3. a) Illustrate the fork() system call for creating a child process with an example.
b) What are the properties of the parent that are inherited by the child process?
4. a) Explain the terms Advisory Locking and Mandatory Locking and the system calls associated with them.
b) What are Pipes? How do they differ from FIFOs? Write their merits and demerits.
5. Explain various systems calls and structures associated with Messages Queues.
6. Explain the following system calls with examples:
a) shmget() b) semget() c) shmctl() d) semctl() e) shmat() f) shmdt()
7. What is the need of socket in client server communications? How many types of sockets are there? Explain various socket APIs used for connection oriented communication with clear syntax and examples.
8. a) Discuss the transparency issues in RPC.
b) With a neat diagram explain the importance of RPC Model.
