

**Code No: C4007****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****M.Tech I Semester Examinations October/November-2011****LINUX PROGRAMMING  
(INFORMATION TECHNOLOGY)****Time: 3hours****Max.Marks:60****Answer any five questions  
All questions carry equal marks****- - -**

- 1.a) Explain the responsibilities of a shell.  
b) Write a shell script to illustrate cat command in Linux. [12]
2. Explain about the following system calls:  
a) open( )  
b) seek( )  
c) read( )  
d) link( ). [12]
- 3.a) Differentiate between wait( ) and waitpid( ).  
b) Explain signal( ) function with an example. [12]
- 4.a) What are the disadvantages of pipes? Write a program to implement client-server system using named pipes.  
b) What are the drawbacks of System V IPC mechanisms? [12]
- 5.a) Explain about the kernel data structure for message queues.  
b) List and explain the various system calls that are associated with semaphores. [12]
6. Explain various UNIX APIs for locking a file with semaphores. [12]
7. What is socket? Explain various socket system calls using for TCP protocol. [12]
8. Discuss briefly about the following:  
a) Pattern matching in Perl  
b) Exec system call. [12]

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