

**Code No: F3303**

**R09**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**MCA III Semester Examinations, January-February 2012**

**LINUX PROGRAMMING**

**Time: 3hours**

**Max.Marks:60**

**Answer any five questions  
All questions carry equal marks**

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1. a) Explain briefly about text processing and process utilities.  
b) Write a short note on awk command.
2. a) Briefly describe various shell and environment variables.  
b) Write a shell script to count the specified number of lines in a text file without using head command.
3. a) Describe the file system structure and different file types in Linux system.  
b) Compare hard links with soft links.
4. Explain various system calls related to directory management.
5. Explain the following system calls with clear syntax and example:  
a) fork( )      b) wait( )      c) exec( )
6. a) Explain the advantages of fifos over pipes.  
b) Write a C program to illustrate two way communication using fifos.
7. a) Give the structure of a thread.  
b) Describe posix thread APIs for basic thread manipulation.
8. Discuss the socket system calls related to connection oriented protocol.

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