

Code No: 57046

R09

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, December - 2014

LINUX PROGRAMMING

(Computer Science and Engineering)

Time: 3 Hours

Max. Marks: 75

**Answer any Five Questions
All Questions Carry Equal Marks**

1. Explain various file handling and disk processing utilities with examples.
- 2.a) Write down the characteristics and responsibilities of Shell.
b) Write a shell program to find when a given number is prime or not using command line arguments.
3. Explain the following system calls:
a) stat() b) fcntl() c) link() d) umask()
- 4.a) What is a zombie process? Illustrate with an example. .
b) Explain the differences between fork() and exec() system calls.
- 5.a) Differentiate between pipes and fifos.
b) Write a simple C program to illustrate various system calls related to fifos.
6. Explain the following system calls related to shared memory:
a) shmget() b) shmctl()
- 7.a) Explain the contents of the thread data structure and their uses.
b) Write a sample program to illustrate thread creation using POSIX APIs.
8. Explain various socket APIs used for connection less protocol.

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