USN | | | | | | | | | |

M.S.R.I.T. DEPT. OF LIBRARY BANGALORE-562110

06CS36

Third Semester B.E. Degree Examination, June-July 2009
Unix & Shell Programming

Time: 3 hrs. Max. Marks:100

Note: ***Answer any FIVE full questions, selecting at least TWO questions from each part.***

PART – A

1 a. With a neat diagram, explain the architecture of UNIX, clearly bringing out the division of labor between kernel and shell. **(08 Marks)**
b. Write a note on man documentation. Also give the usage of apropos and what is. **(06 Marks)**
c. Explain the different types of files in UNIX. **(06 Marks)**

2 a. What is file permission? What are the different ways of setting file permission? Explain. **(08 Marks)**
b. With suitable examples, bring out the difference between absolute and relative pathnames. **(06 Marks)**
c. What is a process? Explain the mechanism of process creation. **(06 Marks)**

3 a. What are standard input, standard output and standard error? Explain with respect to UNIX. **(06 Marks)**
b. With a neat diagram, explain different modes of operation of vi editors. Also give the internal commands available in each mode. **(08 Marks)**
c. Differentiate between hard link and soft link with examples. **(06 Marks)**

4 a. What is a job? Describe different job control facilities with suitable examples. **(09 Marks)**
b. Use find command to locate from your home directory
i) all files with the extension .html
ii) all files having inode number 9076
iii) all directories having permissions 666
iv) all files not accessed for more than a year
v) all but the C program files. **(05 Marks)**
c. Explain the following commands with examples:
i) pr ii) sort iii) uniq **(06 Marks)**

PART – B

5 a. With suitable examples, explain the grep command and its various options. **(08 Marks)**
b. Explain line addressing and context addressing in sed with examples. **(06 Marks)**
c. Explain different ways of using test statement, with examples. **(06 Marks)**

6 a. Give the syntax of for statement in shell. Explain the possible sources of list in for statement. **(08 Marks)**
b. Write a shell script that accepts a word and five filenames as arguments, counts and reports the occurrence of the word in each of the files. **(06 Marks)**
c. Write a shell script to find the smallest of three numbers that are read from keyboard. **(06 Marks)**

7 a. With suitable examples, explain the if and while statements in awk. **(06 Marks)**
b. Explain the following built-in functions in awk.
i) split( ) ii) substr( ) iii) length( ) iv) index( ) **(08 Marks)**
c. Write a note on operators and expressions in awk. **(06 Marks)**

8 a. Explain file handling in perl. **(06 Marks)**
b. Perl offers a grand superset of all possible regular expressions in UNIX. Discuss. **(08 Marks)**
c. Explain the following perl features.
i) $_ ii) foreach iii) join **(06 Marks)**

* * * * *