Printed Pages : 3   MCA – 123

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 1450   Roll No.

M. C. A.

(SEM. II) EXAMINATION, 2006-07

UNIX & C PROGRAMMING

Time : 3 Hours]   *[Total Marks : 100*

Note :   (1)   Attempt **all** questions.

(2)   All questions carry **equal** marks.

1   Attempt any **two** parts :   10×2=20

(a)   Write 5 common file system commands in UNIX and list their common attributes.

(b)   (i)   Explain the purpose of include files in UNIX.

(ii)   Describe how UNIX is more secured than other operating systems.

(c)   How do you distinguish between a single and a compound statement and write a meaningful example to explain the above?

2   Attempt any **four** parts :   5×4=20

(a)   Your printer has stopped working, and you want to be sure whether the printing daemon is working. How will you ensure that?

(b) What does kill $! Do? Explain with an example.

(c) You are editing a file in vi, and want to make a temporary exit to the shell. How will you do that and then come back to vi again?

(d) Where is the name of a file store and when a file is deleted then what change occurs in the inode?

(e) Explain mounting of a file system in UNIX. When is unmounting a file system not possible?

(f) Archive a directory structure/home/local/bin with tar, and compress it to a disk file with gzip.

3   Attempt any **two** parts :   10×2=20

(a) Write short note on strip and ctrace tools in UNIX.

(b) Explain the concept of text formatting in UNIX using any editor as an example.

(c) Explain about the language development tools in UNIX?

4   Attempt any **four** parts :   5×4=20

(a) Write a script that executes a counter and execute it in the Korn and Bash shells. Do you see the same problems?

(b) How will you make sure that a specific program is executed immediately on logging in, and the user logged out when the program finishes?

(c) Write a shell function size ( ) which lists the total size of the files of the arguments (all files without arguments).

(d) Write about the shell meta characteristics in UNIX.

(e) Write a script that tracks any file changes done between 20:00 hrs and 22:00 hrs.

(f) Write 5 shell variables and explain about them.

5 Answer any **four** parts :

(a) If Eminem becomes a super user with su, why can't s/he easily execute commands on his current directory? To which directory's commands does he have easy access to?

(b) Can you print a file when the system is in the single user mode?

(c) How will you find out the total disk usage of the current directory tree? How does the behaviour of the calendar command change when invoked by a super user?

(d) Write note on IPC.

(e) List the various file permissions in Unix. Explain how they can be changed.

(f) What do you understand by Socket. Explain with example.

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