



Printed Pages : 3

MCA – 123

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

**PAPER ID : 1450**

Roll No.

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**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?

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- (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).

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- (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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