



Printed Pages : 3

MCA – 203

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

PAPER ID : 1468

Roll No.

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MCA

(SEM. II) EXAMINATION, 2006 – 07

UNIX & SHELL PROGRAMMING

Time : 3 Hours]

[Total Marks : 100

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

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

1 Attempt any **four** parts :

- a) Draw the architecture of UNIX system and describe each layer.
- b) What do you mean by sleep and wake up in UNIX?
- c) Write the commands for the following :
 - i) Display the calendar of April 2007.
 - ii) List all processes running on the system.
 - iii) Count the number of words and characters in the file.
 - iv) To find the name of your machine.
 - v) Checking the spelling of the phrase “Hello World”

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- d) Give the complete syntax of the following commands.
 - a) *ls*
 - b) *date*
 - c) *time*
 - d) *rm*
 - e) *mkdir*
- e) Write a short note on internal and external commands of UNIX.
- f) What are the various methods to get help in UNIX?

2 Attempt any **four** parts :

- a) What is the role of Kernel in UNIX operating system? Explain the various features of KERNEL.
- b) Write a short note on filing mounting and unmounting in UNIX
- c) How do you create a new user account in UNIX considering that you are the administrator? Name this account as ABCXYZ and set its password as NULL VALUE (The user decides the password once s/he logs on for the first time)
- d) What are the various security features offered in UNIX? Explain any two in detail.
- e) Program a UNIX machine to handle ten logins simultaneously. Name them as mac1, mac2, mac3... mac10. All these login terminals should have the same password as "Spiderman" and access rights should also be similar.
- f) Write commands to backup all the data from the account "HELLRAIZER" everyday at 22.30 hrs.

- 3** Attempt any **two** parts of the following :
- a) Write a short note on language development tools in UNIX.
 - b) Describe the following tools troff, nroff, tbi.
 - c) Describe SCCS with an example,
- 4** Attempt any **four** parts of the following :
- a) Distinguish between Bourne shell, C shell and Korn shell.
 - b) Write a short note on arrays in UNIX
 - c) Determine what the built-in shell variables are for your account. Which ones are exported?
 - d) Write a shell script to print “Hello World” in inverted colours on the screen.
 - e) Explain all the decision making statements in details.
 - f) How will you repeat the last command in (i) Korn Shell (ii) Bash?
- 5** Attempt any **two** parts of the following :
- a) Write a shell script that prints the RAM used by the system.
 - b) Write a shell script that gives the memory details of the system.
 - c) Explain Multitasking, background processes and child-parent relationship in details.