

Roll No.

Total Pages : 3

CAMQ/D-20

24059

LINUX AND SHELL PROGRAMMING

Paper–MCA-14-53

Time Allowed : 3 Hours]

[Maximum Marks : 80

Note : Attempt **five** questions in all, selecting **one** question from each Unit. Question No. **1** is compulsory. All questions carry equal marks.

Compulsory Question

1. (a) What are various Linux distributions? Discuss.
- (b) Discuss the layout of C program in Memory.
- (c) What are the tools available for Backup process? Explain with their syntax.
- (d) What is Interrupt processing? Discuss.

4×4=16

UNIT-I

2. (a) Discuss the Linux file system. How do we access the File systems? 10
- (b) Which System call is used in opening a File? List all its flags and modes. 6

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3. (a) Discuss the features and architecture of Linux. 8
- (b) Discuss various Disk related Commands. 8

UNIT-II

4. What do you understand by Makefile? How projects can be handled using makefile? Design a makefile with the help of dependency calculations using suitable examples. 16
5. (a) Briefly discuss Process environment and Process images. 6
- (b) What is Dynamic loader? How can we use several environment variables to control the behavior of the Dynamic loader? Discuss. 10

UNIT-III

6. (a) How can the permissions and ownerships of files and directories be viewed and changed in Linux? Discuss using the general format of commands and examples. 10
- (b) How can file systems be created and mounted in Linux? Discuss. 6

7. (a) Discuss following signal handling functions : 8
raise, alarm, pause, abort.
- (b) List and describe various Environment variables. 8

UNIT-IV

8. Discuss various process related and process scheduling commands using suitable examples. How can we manage Multiple processes? 16
9. (a) Write a menu driven shell script for converting all the Capital letters in a file to Small case letters and vice-versa. 8
- (b) Discuss Iterative statements available in Bash shell using examples. 8