

7-12-2019

Roll No. ....

Total Pages : 3

OMCA/D-19

**10002**

**LINUX AND SHELL PROGRAMMING**

Paper-MCA-502

Time Allowed : 3 Hours]

[Maximum Marks : 80

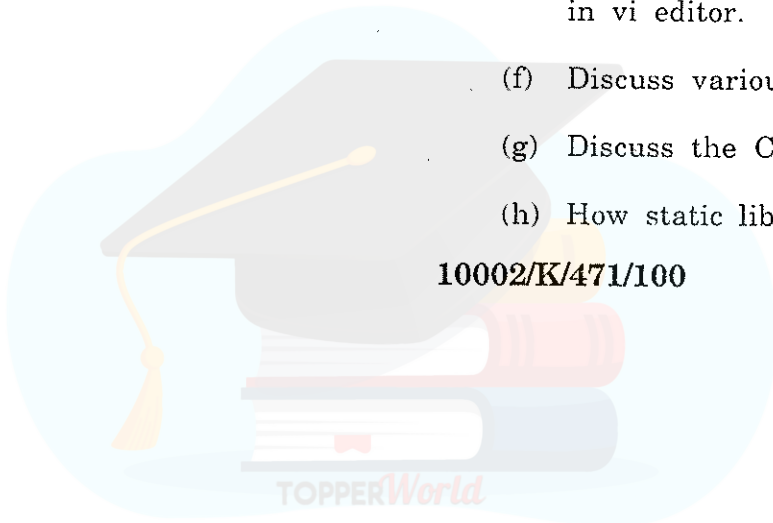
**Note:** Question no. **one** is compulsory. In addition to that, attempt **four** more questions selecting one question from each unit.

**Compulsory Question**

1. (a) Discuss the chmod command in Linux. 3
- (b) How are processes connected with pipes? Discuss about the output of the command: 3  
Is | tee list.txt
- (c) Write a short note on background processing in Linux. 3
- (d) Discuss various type of Linux files. 3
- (e) List and illustrate cursor movement commands in vi editor. 3
- (f) Discuss various environment variables. 3
- (g) Discuss the C compiler options. 3
- (h) How static libraries can be built? 3

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**P. T. O.**



## UNIT-I

2. (a) Discuss the features of Linux operating system. Also discuss the architecture of Linux. 7
- (b) Discuss the process oriented commands of Linux using examples. 7
3. (a) Discuss various filters in Linux using examples. 9
- (b) What are regular expressions? Discuss. 5

## UNIT-II

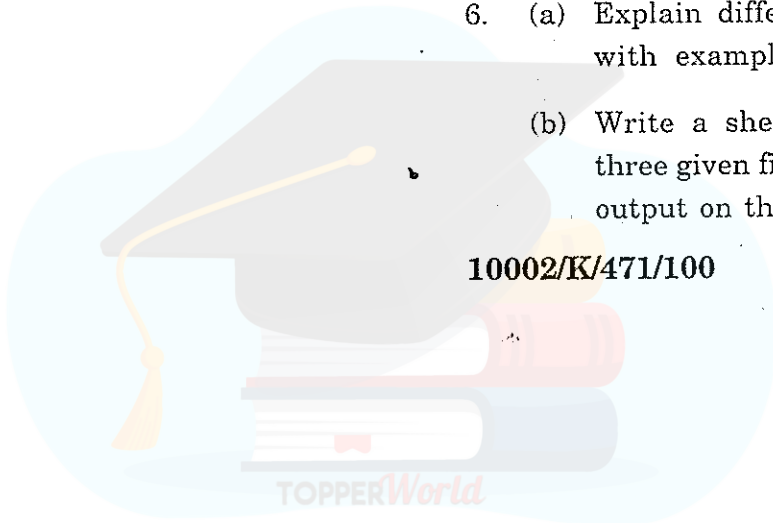
4. What is file system? Discuss the components of file system along with various types of file system. How file system can be mounted and unmounted in Linux? 14
5. (a) How can multiple processes be managed in Linux? also discuss various process scheduling commands in Linux. 7
- (b) Discuss following signal handling functions: raise, alarm, pause, abort. 7

## UNIT-III

6. (a) Explain different file and string test operators with examples. 7
- (b) Write a shell script to merge the contents of three given files, sort them and display the sorted output on the screen page by page. Also display

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the list of last 20 files present in the current directory and store that list in a file named as current. 7

7. What is the role of system administrator in basic administration in Linux? Discuss how the super user can add, modify and delete the users and groups in Linux, using the suitable examples. 14

#### UNIT-IV

8. What is the need of gdb? How can debugging be done using gdb? List and describe the purpose and use of various gdb debugger commands. 14
9. (a) Discuss what can be done automatically by makefile with the help of examples. 7
- (b) Write short notes on Idd tool and soname. 7

