

# CBCS Scheme

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16MCA12

## First Semester MCA Degree Examination, June/July 2017 UNIX Programming

Time: 3 hrs.

Max. Marks: 80

*Note: Answer FIVE full questions, choosing one full question from each module.*

### Module-1

- 1 a. How UNIX was different from its contemporary operating systems? (08 Marks)  
b. Explain the following commands:  
i) Calendar      ii) Stty      iii) uname      iv) script (08 Marks)

OR

- 2 a. What are shell scripts? How does the shell work to interpret the commands? (06 Marks)  
b. Explain the working of for looping statement. With example, mention different options of lists which can be used with for statement. (10 Marks)

### Module-2

- 3 a. Write a shell script to copy a file in present directory to another directory passed as an argument. (06 Marks)  
b. In UNIX, on creation of a file what are the permissions that are associated with it? With example, show how these permission can be changed to a required value. (10 Marks)

OR

- 4 a. With a neat diagram, explain how files are organized in UNIX operating system. Explain the methods how can an user navigate inside this organized structure. (10 Marks)  
b. Different between hard link and a symbolic link. (06 Marks)

### Module-3

- 5 a. What does sed command do? How sed command be used for line and context addressing? Explain with a suitable example. (06 Marks)  
b. Explain the following commands:  
i) uniq,      ii) sort,      iii) head,      iv) tr      v) pr (10 Marks)

OR

- 6 a. With suitable example, explain '+' and '?' with respect to BRE and ERE. (06 Marks)  
b. Write a shell script which will receive many numbers of filenames as arguments. Check if every argument is a file or a directory. If directory display suitable message along with directory name. If file, the name of the file with the number of lines in the file should be displayed. At the end the script should display total number of files and directory. (10 Marks)

### Module-4

- 7 a. With a suitable input file, explain the general structure and the operational mechanism of an awk script. (08 Marks)  
b. How expr can be used with numbers and strings? (08 Marks)

**OR**

- 8 a. Explain the inbuilt variables and functions of awk. (10 Marks)  
b. Write short notes on:  
i) getline                      ii) eval                      iii) exec (06 Marks)

**Module-5**

- 9 a. Explain the system administrator privileges in UNIX. (08 Marks)  
b. Differentiate between:  
i) at and batch  
ii) internal and external commands (08 Marks)

**OR**

- 10 a. Explain briefly the commands used to manage the disk space in UNIX with respect to the administrator. (06 Marks)  
b. List the command that lets the user recall previously executed commands. With example, mention four different ways how this command be used in UNIX. (10 Marks)

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