

# CBCS SCHEME

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15CS35

Third Semester B.E. Degree Examination, Aug./Sept. 2020

## UNIX and Shell Programming

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

### Module-1

- 1 a. Explain the salient feature of UNIX operating system. (06 Marks)  
b. Give the significance of the seven fields of `ls-l` command. (06 Marks)  
c. Explain with example internal and external commands of UNIX. (04 Marks)

OR

- 2 a. Briefly explain the UNIX architecture. (07 Marks)  
b. Explain the following commands with example.  
i) echo ii) `ls` iii) `who` iv) `date` v) `cal`. (05 Marks)  
c. Explain the commands to add and delete user. (04 Marks)

### Module-2

- 3 a. Draw the tree structure of the file system created by the following commands (assume you are in the directory `/user/office`). Why is it not possible to issue the command `rmdir/user/office/right`.  
`$ mkdir left`  
`$ mkdir middle`  
`$ mkdir right`  
`$ cd left`  
`$ mkdir left middle right`  
`$ cd.../middle`  
`$ mkdir dir1 dir2/user/office/right/dir3`. (08 Marks)  
b. Which command is used for listing file attributed? Explain briefly the significance of each field of the output. (08 Marks)

OR

- 4 a. What is file permission? Explain how to use "chmod" command to set the permissions in a relative manner with an example. (08 Marks)  
b. Explain absolute method of changing permissions with example. (08 Marks)

### Module-3

- 5 a. Explain "grep" command with all options. (08 Marks)  
b. Explain 3 standard files with respect to UNIX. (08 Marks)

OR

- 6 a. Define wild card, explain shell wild card. (06 Marks)  
b. What are Extended Regular Expression (ERE)? Explain any four ERE set used by "grep" and "egrep". (06 Marks)  
c. Explain shell interpretive cycle. (04 Marks)

**Module-4**

- 7 a. Distinguish between hard links and soft links with example. (06 Marks)  
b. Explain the shell features of : (06 Marks)  
i) while ii) "for" with syntax. (04 Marks)  
c. Write a shell script to print first 10 numbers (1 to 10).

OR

- 8 a. Discuss head and tail command along with its options. (08 Marks)  
b. Explain the following statement with example : (08 Marks)  
i) "if" ii) while iii) case.

**Module-5**

- 9 a. Briefly explain variables and operators in Perl. (06 Marks)  
b. Explain the following i) split ii) Join in Perl. (06 Marks)  
c. Write a PERL script to demonstrate the use of "chop" function. (04 Marks)

OR

- 10 a. Explain mechanism of process creation. (08 Marks)  
b. Write a Perl script to read letters NEWS from command line and display their abbreviation. (08 Marks)

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