

15CS35

Third Semester B.E. Degree Examination, Dec.2017/Jan.2018

**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. List and explain features of UNIX operating system. (07 Marks)  
b. Discuss internal and external commands, with suitable examples. (06 Marks)  
Write the outputs of the following commands :  
i) `cal 8 1947`  
ii) `echo 'Todays date is `date`'`  
iii) `date + "Date is : %a/%h/%Y"`. (03 Marks)

OR

- 2 a. Explain "man" documentation, and its internal commands. (08 Marks)  
b. Describe command arguments and options with suitable examples. (04 Marks)  
c. How an ordinary user can become a super user and vice versa? Explain with suitable commands. (04 Marks)

**Module-2**

- 3 a. What is a file system? Explain Unix file system with neat diagram, also explain parent and child relationships with suitable examples. (08 Marks)  
b. What is pathname? List and explain types of path-names with an examples. (06 Marks)  
c. Write the command line to perform the followings :  
i) Change current directory to home directory  
ii) Change to parent of parent directory. (02 Marks)

OR

- 4 a. What are file permissions? Describe different ways of changing the file permissions. (07 Marks)  
b. Explain CP and Od commands with options. (06 Marks)  
c. Write the output for the following command lines.  
i) `mv filename dir_name`  
ii) `ls -l wc -w`  
iii) `who | wc -l`. (03 Marks)

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**Module-3**

- 5 a. List and explain the different modes of Vi editor, also explain different ways of quitting Vi editor. (08 Marks)  
b. Discuss the following commands with respect to Vi editor.  
i) b ii) w iii) | iv) G v) :l, 5w ab.txt vi) h vii) J viii) abbr. (08 Marks)

**OR**

- 6 a. What are wild cards characters? Explain each of them with suitable examples. (08 Marks)  
b. What is the purpose of grep? Explain grep with all options. (06 Marks)  
c. Explain tee command with an example. (02 Marks)

**Module-4**

- 7 a. Explain test command for handling strings. (04 Marks)  
b. Write a shell script using case to perform all arithmetic operations. (06 Marks)  
c. Explain for loop, also possible sources of argument list. (06 Marks)

**OR**

- 8 a. Explain cut command with all options, with examples. (05 Marks)  
b. What are links? How to create different types of links? And list their differences. (06 Marks)  
c. Discuss umask and default file permissions. (05 Marks)

**Module-5**

- 9 a. Discuss how to execute commands periodically with suitable example. (05 Marks)  
b. Explain find command in detail. (06 Marks)  
c. What is process? Explain different mechanisms of process creation. (05 Marks)

**OR**

- 10 a. Explain string handling functions in PERL. (07 Marks)  
b. Write a PERL programs check the given year is leap year or not. (07 Marks)  
c. Explain split function in PERL briefly. (02 Marks)

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