USN

(06 Marks)

(04 Marks)

CBCS Scheme

Third Semester B.E. Degree Examination, June/July 2017

**Unix and Shell Programming** 

Tin	ne: 3	3 hrs. Max. Marks: 80
	N	ote: Answer any FIVE full questions, choosing one full question from each module.
		Module-1
1	a.	With a neat diagram, explain the architecture of Unix operating system. (08 Marks)
	b.	With the help of a diagram, explain the parent – child relationship in Unix File System.  (04 Marks
	c.	Explain the following commands with the syntax and example:
		i) tty ii) printf iii) date iv) Uname (04 Marks
		OR
2	a.	Explain the salient features of Unix operating system. (08 Marks
	b.	Differentiate between external and internal commands in Unix with suitable example.  (04 Marks
	C.	Explain the following commands with syntax and example:
		i) stty ii) echo iii) cal iv) passwd (04 Marks
		Module-2
3	a.	Illustrate with a diagram typical Unix file system and explain different types of file
		supported in Unix. (08 Marks
	b.	Name the command used for creating, deleting and changing the directory. Explain with the
		syntax and example. (08 Marks
		OR
4	a.	Which command is used for listing file attributes? Explain the significance of each field i
		the output.
	b.	Files current permissions are $rw w - r$ write chmod expressions required to change them for the following.
		i) r r x ii) rwxrwx x iii) r - xr - xr - x iv) rwxrwxr
		Using both relative and Absolute methods of assigning permissions. (08 Mark
_		Module-3
5	a.	Explain the three modes of Vi and explain how can you switch from one mode to another.  (04 Mark
	b.	Explain what these wild - card pattern match:
	A	i) $[A-Z]$ ???? ii) $[!0-9]$ iii) * $[!S][!h]$ (06 Mark
	6	With suitable examples, explain the grep command and its various options. (06 Mark
1		OR
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6 a. Briefly explain the extended Regular expression with an example.

Explain the three sources of standard input and standard output.

1 of 2

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- c. Write the Unix commands for the following:
  - i) Find and replace all the occurrences of "Unix" with "UNIX" in the text file after confirming the user. [Vi editor command].
  - ii) To delete all files with three character extension except "out" from current directory.
  - iii) List all the files in PWD which are having exactly five characters in their filename and any numbers characters in their extension.
  - iv) Writing the first 50 lines to another file. [Vi editor command].
  - Inserting a text at the beginning of the line. [Vi editor command].
  - vi) Searching for a pattern in backward direction. (06 Marks)

## Module-4

- What is shell programming? Write a shell program to create a menu and execute a given options based on users choice. Options include
  - i) List of users

iv) Current date

- ii) List of processes v) Content of files
- iii) List of files
- vi) Display current login users.
- (10 Marks)
- b. Explain the following with an example: i) head ii) tail iii) cut.
- (06 Marks)

- What is shell script? Explain the following statements with syntax and example:
  - ii) case iii) while.

(10 Marks)

- b. Distinguish between hard links and soft links with suitable example.
- (06 Marks)

## Module-5

- a. Write a Perl script to determine whether the given year is a leap year or not. (08 Marks) b. Explain the mechanisms of process creation. (06 Marks)
  - c. What is an associative array?

(02 Marks)

- OR
- 10 a. Explain the following in PERL with example. i) Split iii) Join.

(08 Marks)

b. Explain variables and operators in PERL. Briefly explain the subroutines in PERL.

(06 Marks) (02 Marks)