

USN

--	--	--	--	--	--	--	--	--	--



10CS44

**Fourth Semester B.E. Degree Examination, Dec.2015/Jan.2016**

## Unix and Shell Programming

Time: 3 hrs.

Max. Marks:100

**Note: Answer FIVE full questions, selecting at least TWO questions from each part.**

### PART – A

1.
  - a. Explain the Architecture of UNIX operating system with a neat diagram. (08 Marks)
  - b. Describe the salient features of UNIX operating system. (08 Marks)
  - c. Write a note on man command. (04 Marks)
2.
  - a. Explain the different types of files supported in UNIX. (06 Marks)
  - b. Which command is used for listing file attributes? Explain significance of each field in the output. (08 Marks)
  - c. Explain with a neat diagram the three modes of Vi – editor. (06 Marks)
3.
  - a. What are standard input, standard output and standard error? Explain in detail with example. (06 Marks)
  - b. Define the term process. Explain the mechanism of process creation in UNIX. (06 Marks)
  - c. Explain the following command with an example
    - i) Running jobs in background (& and nohup)
    - ii) Execute later (at and batch) (08 Marks)
4.
  - a. Write a note on sort and find command. (08 Marks)
  - b. Differentiate between Hard link and Soft link in UNIX with example. (06 Marks)
  - c. Explain the following commands with example
    - i) Head
    - ii) tail
    - iii) Pr (06 Marks)

### PART – B

5.
  - a. What is the difference between a wild card and regular expression? Explain 'grep' command using n, l and f option with example. (06 Marks)
  - b. What are Extended Regular Expressions? Explain any four ERE set used by grep and egrep. (06 Marks)
  - c. Explain line addressing and context addressing in sed with example. (08 Marks)
6.
  - a. What is shell programming? Write a shell program to create a menu which displays,
    - i) List of files
    - ii) Current date
    - iii) Process status
    - iv) Current user of the system and
    - v) Quit to UNIX (08 Marks)
  - b. Explain shell features of 'while' and 'for' with syntax. (06 Marks)
  - c. Explain the use of test and [ ] to evaluate an expression in shell. (06 Marks)
7.
  - a. What is AWK? Explain any three built – in function in AWK. (06 Marks)
  - b. Write an AWK sequence to find HRA, DA and Netpay of an employee, where DA is 50% of basic, HRA is 12% of basic and the Netpay is the sum of HRA, DA and Basic pay. (08 Marks)
  - c. Briefly describe built in variables in AWK. (06 Marks)
8.
  - a. Explain with example the string handling function supported by perl. (08 Marks)
  - b. Explain Lists, Arrays and Associative Arrays with respect to perl. (06 Marks)
  - c. Write a perl script to convert decimal number to binary number. (06 Marks)

\* \* \* \* \*

Important Note : 1. On completing your answers, carefully draw diagonal cross lines on the remaining blank spaces.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.