(08 Marks)

## USN

## 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.

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		<u>PART A</u>	
1	a. b. c.	Explain the Architecture of UNIX operating system with a neat diagram.  Describe the salient features of UNIX operating system.  Write a note on man command.	(08 Marks) (08 Marks) (04 Marks)
2	a. b.	Explain the different types of files supported in UNIX.  Which command is used for listing file attributes? Explain significance of each output.  Explain with a neat diagram the three modes of Vi – editor.	(06 Marks) field in the (08 Marks) (06 Marks)
3	a.	What are standard input, standard output and standard error? Explain in detail wi	
	b. c.	Define the term process. Explain the mechanism of process creation in UNIX.  Explain the following command with an example  i) Running jobs in background (& and nohup)	(06 Marks)
		ii) Execute later (at and batch)	(08 Marks)
4	a.	Write a note on sort and find command.	(08 Marks)
	b. c.	Differentiate between Hard link and Soft link in UNIX with example.  Explain the following commands with example	(06 Marks)
		i) Head ii) tail iii) Pr	(06 Marks)
_		$\underline{PART} - \underline{B}$	
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- - b. What are Extended Regular Expressions? Explain any four ERE set used by grep and egrep.
    (06 Marks)

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
  - 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)
  - e. 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.
    c. Write a perl script to convert decimal number to binary number.
    (06 Marks)
    (06 Marks)

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