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BANGALORE - 560 03

10CS44

Fourth Semester B.E. Degree Examination, June/July 2018
Unix and Shell Programming

Time: 3 hrs.

Max. Marks:100

Note: Answer any FIVE full questions, selecting atleast TWO questions from each part.

PART – A

- 1 a. With a neat diagram, explain the architecture of Unix operating system. (08 Marks)
b. Explain salient features of Unix operating system. (06 Marks)
c. Explain the following commands, with example:
who , stty , passwd (06 Marks)
- 2 a. What is a Navigation? What are commands used for navigation in 'vi' editor. (08 Marks)
b. What is File permission? Explain how to use "chmod" command to set the permission in a relative manner with an example? (07 Marks)
c. Explain the three different modes in which 'vi' editor works. (05 Marks)
- 3 a. With the knowledge of the elements of process creation, how the shell itself is created. (05 Marks)
b. Explain the mechanism of process creation. (07 Marks)
c. Give the significance of the following common environment variables:
(i) HOME (ii) PATH (iii) PS1 (iv) PS2 (08 Marks)
- 4 a. Write short notes on "inode". (05 Marks)
b. Explain "Sort" command briefly. Also discuss its important options with examples (Any five). (07 Marks)
c. Explain the following commands with example:
(i) head (ii) tail (iii) cut (iv) paste (08 Marks)

PART – B

- 5 a. What is Basic regular expression? Explain with example. (06 Marks)
b. Explain 'grep' commands with its options c, n, v, i and l each with an example. (08 Marks)
c. What are internal commands used by 'sed'? (06 Marks)
- 6 a. Explain the use of "test" and [] to evaluate an expression in shell. (08 Marks)
b. Explain the shell features of "while" and "for" with syntax. (06 Marks)
c. Explain the "expr" command applicable to computation, with an example. (06 Marks)
- 7 a. What is AWK? Explain any three built-in variables used in AWK? (08 Marks)
b. Give the significance of the comparison and regular expression matching operators in AWK. (06 Marks)
c. Explain any three Built-in functions in AWK. (06 Marks)
- 8 a. Explain 'chop' function with examples. (06 Marks)
b. Explain the concatenation operator . (dot) and × in perl with appropriate examples. (06 Marks)
c. Explain 'split' and 'join' functions in perl. (08 Marks)

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