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16/17MCA12

First Semester MCA Degree Examination, June/July 2018
UNIX Programming

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing one full question from each module.

Module-1

1 a. What is shell? Describe the architecture of UNIX operating system. **(08 Marks)**
   b. Explain the following commands with syntax:
      (i) *l*s (ii) cat (iii) Uname (iv) echo **(08 Marks)**

OR

2 a. What is shell script? Explain the salient features of Unix operating system. **(08 Marks)**
   b. Explain the following commands with syntax:
      (i) set (ii) expr (iii) trap (iv) sleep **(08 Marks)**

Module-2

3 a. What is File system? Explain the Unix file system with neat diagram. **(08 Marks)**
   b. Explain the following commands in detail:
      (i) chown (ii) chmod. **(08 Marks)**

OR

4 a. Explain hardlinks and softlinks with examples. **(08 Marks)**
   b. Explain the following commands in detail:
      (i) Umask (ii) find **(08 Marks)**

Module-3

5 a. What is a filter? Explain atleast three filters with example. **(08 Marks)**
   b. Discuss grep command with options. **(08 Marks)**

OR

6 a. What is sed command? Explain line addressing, context addressing and text editing commands, with examples in sed. **(08 Marks)**
   b. Write a shell script that accepts two file names as arguments, checks if the permissions for these files are identical and if the permissions are identical, output common permission and otherwise output each file name followed by its permissions. **(08 Marks)**

Module-4

7 a. Discuss the structure of an AWK script and explain the Built-in variables used in AWK. **(08 Marks)**
   b. Write an AWK program, if basic salary is greater than 10000 the DA is 45% of the basic and HRA is 15% of the basic. Otherwise DA is 60% of the basic and HRA is 25% of the basic. The total salary is the sum of basic salary, DA and HRA. **(08 Marks)**

OR

8	a.	Explain the if and for control structures in awk with example.	**(08 Marks)**
	b.	Explain the following commands with example :	
		(i) cd (ii) eval (iii) export (iv) Exec	**(08 Marks)**

Module-5

9	a.	Explain the various options of PS command with example.	**(08 Marks)**
	b.	Explain Internal and External commands with suitable example.	**(08 Marks)**

OR

10	a.	Who is a Super user? What are the privileges of the system administrator?	**(08 Marks)**
	b.	Explain the following commands with example:	
		(i) du (ii) df (iii) cpio (iv) tar	**(08 Marks)**

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