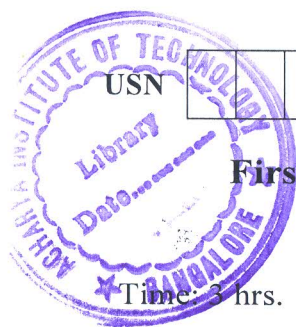


CBCS SCHEME

18MCA12



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First Semester MCA Degree Examination, Dec.2019/Jan.2020 UNIX and Shell Programming

Time: 3 hrs.

Max. Marks: 100

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

Module-1

- 1 a. Explain the UNIX architecture with a neat diagram. (10 Marks)
b. Explain in detail any five features of UNIX operating system. (10 Marks)

OR

- 2 a. Explain the following commands:
i) cat ii) bc iii) date iv) script v) tty (10 Marks)
b. Explain the following in detail with examples:
i) read (10 Marks)
ii) command-line Argument
iii) Exit status of a command.

Module-2

- 3 a. Explain the following commands:
i) pwd ii) cd iii) mkdir iv) rmdir (10 Marks)
b. Explain the UNIX file system with a neat diagram. (10 Marks)

OR

- 4 a. Describe the seven attributes of the *ls-l* command. (10 Marks)
b. Explain about hard-link and symbolic link with examples. (10 Marks)

Module-3

- 5 a. Explain the following commands in detail:
i) head ii) tail iii) pr iv) cut v) paste (10 Marks)
b. Explain about "regular expression" in detail. What are the various wild-card characters used in regular expressions? (10 Marks)

OR

- 6 a. Describe about "grep" command in detail with any five options used in it. (10 Marks)
b. Write about "line-addressing" and "context-addressing" with examples. (10 Marks)

Module-4

- 7 a. Explain about "awk-filter" with syntax and example. (06 Marks)
b. What are various built-in operators used in "awk"? Explain. (08 Marks)
c. Explain about BEGIN and END sections in awk, with an example program. (06 Marks)

OR

- 8 a. Explain the following commands in detail: i) export ii) eval iii) exec. (10 Marks)
b. Describe the in-built functions of awk. (10 Marks)

Module-5

- 9 a. What are the privileges of the system administrator? (10 Marks)
b. Explain the start-up and shut-down procedure in UNIX. (06 Marks)
c. Explain about internal and external commands. (04 Marks)

OR

- 10 a. Explain the following commands: i) at ii) batch iii) nice iv) Aliases (10 Marks)
b. Write an awk script to compute gross salary of an employee accordingly to rule given below.
i) If basic salary is < 10000 then HRA = 15% of basic and DA = 45% of basic.
ii) If basic salary is ≥ 10000 then HRA = 20% of basic and DA = 50% of basic. (10 Marks)
