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B. E. (Sixth Semester) Examination, Nov.-Dec. 2021

(New Scheme)

(IT Branch)

UNIX & SHELL PROGRAMMING

Time Allowed : Three hours

Maximum Marks : 80

Minimum Pass Marks : 28

*Note : Attempt all questions. Part (a) of each question is compulsory and carry 2 marks. Attempt any **two** parts from (b), (c) and (d) of each question and carry 7 marks each.*

Unit-I

1. (a) Illustrate output of ls -I command.   2

   (b) Describe various modes of vi editor and demonstrate commands for following :   7

(i) Switch to insert mode

(ii) To move cursor down

(iii) Undo last editing

(iv) To delete a single character

(c) Illustrate head and tail command in detail with example. 7

(d) Demonstrate command for the following : 7

(i) To view reference manual of data command.

(ii) To remove nonempty directory newdir.

(iii) To interactively copy the content of oldfile to newfile.

(iv) To sort the file in reverse order.

(v) Combine the contents of file1 and file2 into another file named 'file3'.

(vi) To rename file1 to testfile.

(vii) To display currently logged in users with column heading.

Unit-II

2. (a) Define Shell. 2

(b) Demonstrate a shell script that accepts a filename and displays beginning and end of file. It also accepts starting and ending line numbers and display all the lines between the given range. 7

(c) Demonstrate a shell script that compare two files and delete one if both the file are same. 7

(d) Explain various shell meta-characters in detail. 7

Unit-III

3. (a) Explain following command line in brief.

Grep main a.c b.c. c.c | wc −1 2

(b) Illustrate awk Programming structure in detail. 7

(c) Explain any 7 flags of grep command with example. 7

(d) What is Sed? Explain its syntax. Illustrate all the associated actions. 7

Unit-IV

4. (a) Explain two special files that are used by any shell. 2

(b) How a korn shell script will debug? Explain debugging
with the help of an example.   7

(c) What are the various special parameters used in
korn shell? Explain.   7

(d) Explain various korn shell features.   7

Unit-V

5. (a) Define Inode.   2

(b) Explain structure of a regular file in Unix operating
system.   7

(c) Write an algorithm for conversions of a path name
to an inode.   7

(d) Explain following system calls :   7

   (i) open()

   (ii) read()

   (iii) stat()

   (iv) lseek()