

Code No: **R42029**

R10

Set No. 1

IV B.Tech II Semester Regular/Supplementary Examinations, April- 2015

UNIX AND SHELL PROGRAMMING

(Electrical and Electronics Engineering)

Time: 3 hours

Max. Marks: 75

**Answer any FIVE Questions
All Questions carry equal marks**

- 1 a) Explain about UNIX features? [8]
b) Explain the following commands with suitable examples:
 i) who ii) date
 iii) mkdir iv) stty [7]
- 2 a) Discuss about different modes of operation in vi editor. [8]
b) Explain cut and paste commands with suitable examples. [7]
- 3 a) Discuss how jobs are controlled in UNIX with suitable examples. [8]
b) Define the terms filters and pipes. Give a short note on them. [7]
- 4 Discuss in detail about grep family of commands. [15]
- 5 a) Explain how associative arrays are used in awk scripts. [8]
b) Explain in detail about the mathematical functions of AWK. [7]
- 6 a) List korn shell features and explain the command history of korn shell. [8]
b) Explain about command execution process of korn shell. [7]
- 7 a) Explain various Special Parameters and Variables in C shell programming. [8]
b) Explain about Argument Validation in C shell. [7]
- 8 Explain the syntax and each argument of the following functions:
 a) stat b) fstat c) lstat d) chmod e) chown [15]

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Time: 3 hours

Max. Marks: 75

**Answer any FIVE Questions
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- 1 a) Explain about UNIX architecture. [8]
b) Explain the following commands with suitable examples:
 i) cat ii) cp
 iii) mv iv) rm [7]
- 2 a) Explain in detail the following networking commands. [9]
 i) unlink ii) mount iii) telnet
b) Explain the following unix utility commands. [6]
 i) head ii) sort iii) paste
- 3 a) Define redirection. Explain how input, output and error redirection is done? [8]
b) Define filter and discuss any four types of filters in UNIX? [7]
- 4 Discuss in detailed about sed? Compare sed with grep. [15]
- 5 a) Explain about user defined functions used in awk scripts with examples. [8]
b) Explain about string functions used in awk scripts with examples. [7]
- 6 a) Explain about the variables of korn shell. [8]
b) Write a korn shell script that accept two file names as arguments and copies the contents of first file in to the second file. [7]
- 7 a) Explain about Environmental Variables and On-Off Variables. [8]
b) Write a C shell script that accepts a file name as argument and tells whether the user is having read, write and execution permissions to that the file or not? [7]
- 8 Explain the syntax and each argument of the following functions:
 a) open b) write
 c) Chmod d) fstat e) umask [15]

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Set No. 3

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Time: 3 hours

Max. Marks: 75

**Answer any FIVE Questions
All Questions carry equal marks**

- 1 a) Explain about UNIX architecture. [8]
- b) Explain the following commands with suitable examples:
i) mkdir ii) more
iii) wc iv) gzip [7]
- 2 a) Discuss various process utility commands with suitable examples. [8]
- b) Explain about different disk utility commands with suitable examples. [7]
- 3 a) What is pipe? Explain how tee command is used in pipes. [8]
- b) Explain cut and paste commands with suitable examples. [7]
- 4 Explain the commands grep, egrep and fgrep with neat examples. [15]
- 5 a) Compare and Contrast awk and grep. [8]
- b) Compare and Contrast awk and sed. [7]
- 6 a) Explain in detail about the environment variables of korn shell? [8]
- b) Explain about debugging process in korn shell with various debugging scripts. [7]
- 7 a) Explain about eval command of C shell. [8]
- b) Write a C shell script that accepts any number of file names as arguments and tells the type of each file. [7]
- 8 a) Define system call. Differentiate between system call and library functions. [8]
- b) Explain about stat system call with suitable program. [7]

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Set No. 4

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(Electrical and Electronics Engineering)

Time: 3 hours

Max. Marks: 75

**Answer any FIVE Questions
All Questions carry equal marks**

- 1 a) Explain about UNIX features. [8]
b) Explain the following commands with suitable examples:
 i) man ii) echo
 iii) lp iv) tar [7]
- 2 a) Explain how security is provided in UNIX through file permissions. [8]
b) Explain about different backup utility commands with suitable examples. [7]
- 3 a) Discuss command execution in shell. [8]
b) Discuss the sort command with suitable examples. [7]
- 4 a) Explain in detail about sed operations and commands. [8]
b) List applications of sed. [7]
- 5 a) Explain about looping statements used in awk scripts. [8]
b) Explain about the mathematical functions of AWK with an example. [7]
- 6 a) Explain about eval command of korn shell. [8]
b) Write a korn shell script that accept file names as arguments and print the number of lines, words and characters of each file. [7]
- 7 a) Explain about the two special files of C shell. [8]
b) Write a C shell script that accepts even number of file names as arguments and copies the contents of 1st file in to the 2nd file, 3rd file in to the 4th file and so on? [7]
- 8 a) Briefly explain about the following system calls:
 open, create, close, read and write. [8]
b) Briefly explain about the following system calls:
 lseek, syslink, stat, lstat, chmod, chown. [7]