

SARDAR PATEL UNIVERSITY
Programme: BCA
Semester: V
Syllabus with effect from: June-2013

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| Paper Code: US05EBCA01 | Total Credit: 2 |
| Title Of Paper: Basics of UNIX Operating System | |

| Unit | Description in detail | Weighting (%) |
|------|---|---------------|
| I | Working with UNIX-like Systems Brief history of UNIX and LINUX, strengths and weaknesses of UNIX-like operating systems Basic concepts in UNIX-like systems: the kernel, shells, multiuser multitasking operation, remote access, file system, processes, environment and environment variables, the command line, online manual Using the vi editor – modes of operation and switching between them, text navigation, editing text, saving and quitting, using buffers (cut-copy-paste), pattern searching and replacement, undoing and repeating commands Basic commands related to handling files and the file system | 25% |
| II | The Bourne Again Shell (bash) Prompts, the command line, quoting and escaping, internal and external commands, the path, shell variables, basic command line processing Using the echo command A quick introduction to basic filters – cat and cut The building blocks approach Input/output redirection Command substitution | 25% |
| III | Introduction to Shell Scripting Shell scripts Fundamental shell programming constructs – conditional execution, loops, input and output, turning debugging on and off, etc. | 25% |
| IV | Shell Scripting using Filters Definition of a filter Basic filters like the grep family, expr, sed, etc. Processing the output of commands like ls, ps, who, etc. Processing data in text files (fixed-width format and delimited format) | 25% |

Basic Text & Reference Books :-

- Das S. : Your UNIX – The Ultimate Guide, Tata McGraw-Hill, 2001.
- Kernighan B. W. and Pike R. : The Unix Programming Environment, Prentice-Hall of India, 1994.
- Prata S. : Advanced Unix – A Programmer’s Guide, BPB Publications, 1986

