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| **SCHOOL OF COMPUTER ENGINEERING AND TECHNOLOGY** | **W.E.F** | 2021 - 2022 (Rev.2019) |

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| **THIRD YEAR BACHELOR OF TECHNOLOGY COMPUTER ENGINEERING** | **COURSE NAME** | Skill Development Lab RHA-II |
| | **COURSE CODE** | CS359 |
| | **COURSE CREDITS** | 2 |
| **RELEASED DATE : 01-07-2021** | **REVISION NO** | 0.0 |

| TEACHING SCHEME (HOURS/WEEK) | | EXAMINATION SCHEME AND MARKS | | | | | |
|---|---|---|---|---|---|---|---|
| | | THEORY | | | TUTORIAL/ | PRESENTATION/ | TOTAL |
| LECTURE | PRACTICAL | MSE | ESE | IA | PRACTICAL | DEMONSTRATION | |
| NIL | 4 | NIL | NIL | NIL | 75 | NIL | 75 |

**AIM::** To provide technical skills, for sharpening the students to enable them to meet the techno-socio-economic challenges.

## COURSE OBJECTIVES:

CS359.CEO.1: To install Red Hat Enterprise Linux using scalable methods

CS359.CEO.2: To access security files, file systems, and networks

CS359.CEO.3: To deploy shell scripting and automation techniques

CS359.CEO.4: To control the boot process, system services and running containers

## COURSE OUTCOMES:

The students after completion of the course will be able to:

CS359.CO.1: Illustrate essential Linux administration tasks.

CS359.CO.2: Experiment with installation, networking and user profiles.

CS359.CO.3: Examine physical storage, file systems and log files.

CS359.CO.4: Inspect the Linux processes, control services, daemons and basic security administration.

CS359.CO.5: Analyze Redhat Linux System with a comprehensive and systematic approach.

| **Red Hat Administration - II** | **40 HOURS** |
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**Automate installation with Kickstart:** Automate the installation of Red Hat Enterprise Linux systems with Kickstart.

**Use regular expressions with grep:** Write regular expressions that, when partnered with grep, isolate or locate content within text files.

**Create and Edit text files with vim:** Introduce the vim text editor, open, edit, and save text files.

**Schedule future Linux tasks:** Schedule tasks to automatically execute in the future.

**Manage priority of Linux processes:** Influence the relative priorities at which Linux processes run.

**Control access to files with access control lists (ACL):** Manage file security using POSIX access control lists.

**Manage SELinux security:** Manage the Security Enhanced Linux (SELinux) behavior of a system to keep it secure in case of a network service compromise.

**Connect to network-defined users and groups:** Configure systems to use central identity management services.

**Add disks, partitions, and file systems to a Linux system:** Manage simple partitions and file systems.

**Manage logical volume management (LVM) storage:** Manage logical volumes from the command line.

**Access networked attached storage with network file system (NFS):** Access (secure) NFS shares.

**Access networked storage with SMB:** Use autofs and the command line to mount and unmount SMB file systems.

**Control and troubleshoot the Red Hat Enterprise Linux:** Manage boot process, limit network communication with firewall and configure a basic firewall.

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### REFERENCE BOOK

1. Red Hat Enterprise Linux 8.0, "RH134: RedHat System Administration-II", Student Guide.