**Red Hat Certified System Administrator (RHCSA)**

**Prerequisites:**

There are no formal prerequisites for the RHCSA exam, but having some experience with Linux system administration is highly recommended.

**Syllabus Outline:**

**1. Accessing the Command Line**

* Use essential command-line tools
* Log in to a text console
* Manage files from the command line

**2. Managing Files from the Command Line**

* Use command-line utilities to create and manage files and directories
* Use the redirection and pipe features
* Access remote systems using SSH
* Archive and compress files

**3. Getting Help in Red Hat Enterprise Linux**

* Access documentation
* View and set system locale information
* Configure and use network sources

**4. Creating, Viewing, and Editing Text Files**

* Create, view, and edit text files
* Create, view, and edit text files with vim

**5. Managing Local Users and Groups**

* Create, delete, and modify local user accounts
* Change passwords and adjust password aging
* Create, delete, and modify local groups and group memberships

**6. Controlling Access to Files**

* Manage file permissions and ownership
* Set access permissions on files and interpret the security effects of different permission settings

**7. Monitoring and Managing Linux Processes**

* View, list, and manipulate processes
* Use command-line tools to monitor and manage processes
* Configure and manage services

**8. Configuring and Securing OpenSSH Service**

* Access remote systems securely
* Configure the OpenSSH service

**9. Analyzing and Storing Logs**

* Manage system logs
* Archive logs
* Use the systemd journal

**10. Managing Networking**

* Configure network settings
* Configure hostname resolution
* Configure network services to start automatically at boot

**11. Archiving and Copying Files between Systems**

* Archive files and directories
* Copy files and directories
* Configure systems to use network file systems

**12. Installing and Updating Software Packages**

* Download, install, update, and manage software packages from Red Hat and CentOS repositories

**13. Accessing Linux File Systems**

* Identify and access logical volumes
* Mount and unmount encrypted partitions

**14. Using Virtualized Systems**

* Create and manage KVM virtualized systems
* Create and configure simple virtual machines

**15. Managing Red Hat Enterprise Linux Systems**

* Deploy, configure, and maintain systems
* Schedule tasks using cron and at
* Manage system software using Red Hat Package Manager (RPM)

**16. Managing Containers**

* Create and manage containers