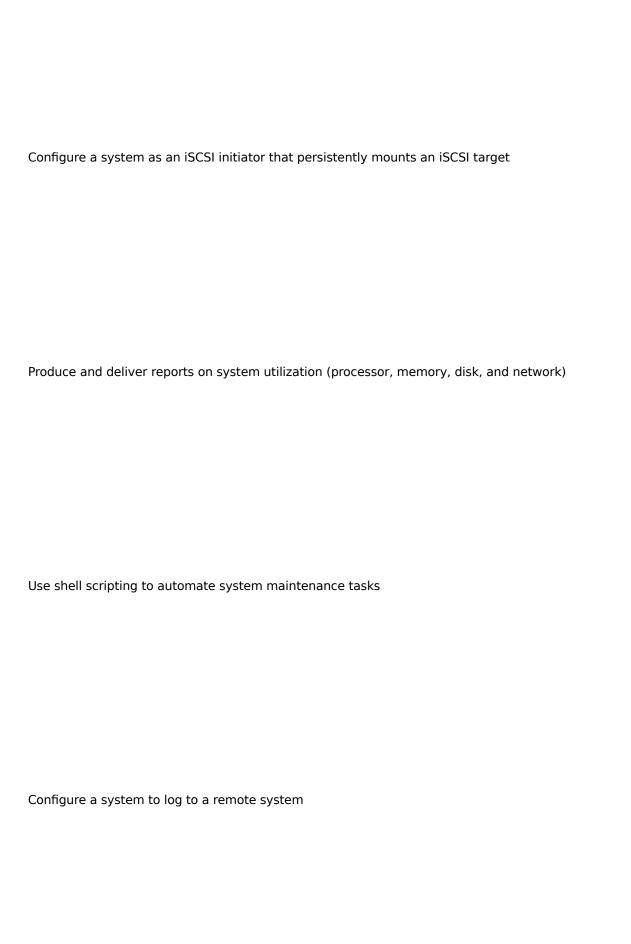# SysadminSG RHCE Study Guide

This is the RHCE Study Guide for the System Administration Study Group.

The study guide is intended to be printed by those who wish to study common tasks performed by many system administrators. This study guide is based upon the Red Hat Certified Engineer Exam Objectives (https://www.redhat.com/certification/rhce/objectives/) . Other useful study components will be added here. Community contributions are always welcome.

System Configuration and Management

Route IP traffic and create static routes

Use iptables to implement packet filtering and configure network address translation (NAT)

Use /proc/sys and sysctl to modify and set kernel run-time parameters

Configure system to authenticate using Kerberos

Configure a system as an iSCSI initiator that persistently mounts an iSCSI target

Produce and deliver reports on system utilization (processor, memory, disk, and network)

Use shell scripting to automate system maintenance tasks

Configure a system to log to a remote system

Configure a system to accept logging from a remote system

Network Services

Network services are an important subset of the exam objectives. The following objectives apply to each of the network services listed below:

- Install the packages needed to provide the service
- Configure SELinux to support the service
- Configure the service to start when the system is booted
- Configure the service for basic operation
- Configure host-based and user-based security for the service

HTTP/HTTPS

Configure a virtual host

Configure private directories

Deploy a basic CGI application

Configure group-managed content

DNS

Configure a caching-only name server

Configure a caching-only name server to forward DNS queries

FTP

Configure anonymous-only download

NFS

Provide network shares to specific clients

Provide network shares suitable for group collaboration

Samba/CIFS

Provide network shares to specific clients

Provide network shares suitable for group collaboration

SMTP

Configure a mail transfer agent (MTA) to accept inbound email from other systems

Configure an MTA to forward (relay) email through a smart host

SSH

Configure key-based authentication