SR. No.	Main Topics	Sub-Topics	POINTS TO BE COVERED	Labs (Demo)	Days	Comments
1	Recap of System Initialization	Working with /etc/inittab files & runlevels	BIOS, Bootloader(Grub) (Practical)	Hands on		RHEL 6.5
	Recap of System Initialization	Booting Overview	Runlevels (Practical) Understanding the use of files under /	Hands on		
	Recap of Device Management	Device Files	Character Special Files or Character Devices Block Special Files or Block Devices	Hands on		
2	Process Management	Process and Job Control	Process Management	Learning process management commands like Ps, nice, renice, top, nohup, kill, killall, bg, fg, jobs, use of &. • Learning Scheduling of jobs using Cron, anacron & AT. • Learning Pipes & Redirection.	Day 0.5	
			Process priority management(nice/renice)			
			Job Scheduling - Cron & AT			
			Kill Process			
			Zombie process			
3	User & Group Management	User & Group Management	What is user , group ? Creation , deletion , modification on user/group passwd , shadow files Brief about login scripts Sudo User	• Learning user management commands like useradd, usermod, groupadd, groupmod, userdel, groupdel, id, su, passwd, Sudo • Demo of /etc/skel & login files	Day 1	
4	Bash Editing	Bash Profile	Brief about Bash profile & its components Skel Component			
5	File System / Disk Management	File system Management	Brief about File system & structure	• Learning file system management commands. • Creating LVM & standard partions. Formatting & mounting • Exploring different directories in parent dir & learning their importance. • Learning temporary & persistant mounting.	Day 2	
			Types of file systems			
		Disk Management	Brief about Partition & types			
			How to create Partition & mounting Permanent ,Temporary			
			Brief about file system Maintenance			
			Brief about RAID			
			Diff between HW vs SW RAID			
			LVM - Logical Volume Management			
6	File Permission	File permission	Brief about file permission , changing permission , owner, mask sticky bit umask	• Learning commands like chmod, setfacl, chown, chgrp, getfacl • Working with permissions & special permissions & learning thir importance.	Day 3	
		ACL - Access Control List for Files & Directory	Brief about ACL & creating , assigning ACL to Files			
7	Network Services	Network configuration	What is ip address How to assign ip configuration files for assigning IP Address Assigning/editing IP using GUI/CLI/conf File	• Assigning static ip & working with network devices.		
		NW Devices				
		Virtual NW Adapters	Creating Virtual NW Adapters			
		Routing - Static , Default				
		NW Diagnostics - ping , tracert				
8	Security & Firewall	Overview of Selinux & Firewall	Concept & Demo			
9	File Management	File Operation	File operation such as copy , move . Rename , Delete	• Learning commands like cp, mv, rm, rmdir, du. • Creating soft link & hard link with ln command. • Working with tar, zip, gunzip	Day 4	
		Disk Utilities	Disk viewing on Free space , usage			
		Links	Brief about links , types & creation & updating the links			
		Encryption	Archiving/Encoding/Compressing/Encrypting File			
		Archiving				
		Compression / Decompression of files	Compression / Decompression of files			
10	Package Management	Package management	What is package , why it is used? Diff between Package , Source code Package formats rpm , deb, pkg.tar.xz , rpm , tgz	• Creating Local yum repository & performing package management. • Using rpm command to manage packages.		
		RPM	CLI			
		YUM - Yellow Update Modifier	YUM local repository Creation Installation/updating/removal of YUM			
11	Backup & Restore	Backup Tools- Overview	What is backup & its importance	• dump, restore, cpio, dd command		
			Types of Backup - incremental , Differential , full			
12	System Services	NTP - Network Time Protocol	Explaining the Service , Configuration	• Learning & setting up NTP, SSH, SCP, Telnet services • Managing startup of services using chkconfig. • Working with service command & init.d dir.	Day 5-6.5	
		System Logging	What is System Log & Why it is used & What is it Purpose.			
		Log Server - rsyslog	Overview			
		VNC Service	Overview			
		SSH Service	Explaining the Service , Configuration			
		SCP Service	Explaining the Service			
		CUPS Service	Overview			
		xinetd Service - Telnet	Explaining the Service , Configuration , xinetd vs inetd , Telnet			
		Service Management - init.d , Chkconfig - Start & stopping Services Service	Service *** start/stop/restart/status .chkconfig , running with absolute path of service scripts			