

**Rayat Shikshan Sanstha's**  
**Karmaveer Bhaurao Patil College, Vashi**  
**Department: Information Technology**

**Question Bank**

**Subject: Linux System Administration**

**Class: T.Y.B.Sc.I.T.**

<b>Unit 1</b>	
1)	Write a note on origin of Linux.
2)	What is open source system? Give example.
3)	Write duties of Linux system administration. Explain any one.
4)	How to configure a secure system?
5)	Explain different types of Bash Shell.
6)	Explain various bash key sequences.
7)	How to manage the command in history list?
8)	Explain various commands to manage directories.
9)	Explain various commands to manage file.
10)	List and explain various commands to display content of file. [Eg. Less, more, head, tail ]
11)	Write a note on piping & redirection.
12)	Explain modes of vi editor.
13)	How to manage process using ps?
14)	Explain various kill commands.
15)	How to manage process niceness?
16)	How to schedule jobs using cron file?
17)	Write steps to mount USB to system.
18)	Explain two types of links.
19)	Write steps to setup rsyslog.
20)	Write steps to setup logrotate.
21)	What is Meta Package Handler? Explain.
22)	Write the steps for creating local repositories?
23)	How to install packages using yum command?
24)	What are package groups? Explain.
25)	Explain various options used to query software using rpm command.

Unit 2	
1)	List & explain different types of partitions.
2)	Explain different types of file system used in Linux.
3)	How to create a file system in Linux?
4)	Explain the use of tune2fs & dumpe2fs.
5)	How to mount file system through fstab?
6)	What is use of fstab? Explain contents of fstab.
7)	Explain the process of resizing Logical Volumes?
8)	Write steps to creating swapn space.
9)	How to encrypt volumes? Explain.
10)	How to create logical volumes?
11)	How to manage (start, stop, disable & enable) service?
12)	How to configure network using Network Manager?
13)	What is system-config-network tool?
14)	Explain any five parameters of ifcfg file.
15)	How to manage network using CLI?
16)	Explain useradd, userdel & usermod command.
17)	What is group membership? Explain.
18)	Explain passwd command with ant five options.
19)	List various files related to user management. Explain any one.
20)	How to manage groups in Linux?
21)	Explain chown & chgrp command.
22)	Write note on file permission.
23)	Explain SUI d, SGID & sticky bit.
24)	What are the uses of ACL?
25)	What are file attributes? Explain any five.
26)	How to setup default permission with umask values?

Unit 3	
1)	Write a note on firewall.
2)	How to setup firewall using system-config-firewall?
3)	Write a note on masquerading.
4)	How a Rule is composed?
5)	How to configure NAT in Linux?

6)	Write a note on SSL.
7)	How to manage certificates with openssl?
8)	How to configure GNU privacy Guard?
9)	What is network file system? What are the features of NFS4? What are the advantages & disadvantages of NFS?
10)	How to share files between two operating system through NFS?
11)	How to share files between Linux & Windows operating system through Samba?
12)	Explain the home section of samba configuration file.
13)	Explain the global section of samba configuration file.
14)	Explain mount command with any 5 options.
15)	What is ftp? Explain any five directives of vsftpd configuration file.
16)	How can anonymous uploads and guest user accounts be enabled Vsftpd? Explain.

<b>Unit 4</b>	
1)	What is DNS? Explain the various elements of DNS hierarchy.
2)	Explain different types of DNS server.
3)	Write steps to configure Primary DNS server.
4)	Write steps to configure Secondary DNS server.
5)	Write a note on DHCP.
6)	How to configure DHCP server?
7)	What is DHCP? Explain any five parameters of dhcpd.conf
8)	Explain zone statement of named.conf file.
9)	Explain option statement of named.conf file.
10)	What is the need of Domain name system? List the configuration files used by DNS. Write purpose of each.
11)	What is the need of named.conf file? List the statements used by named.conf & write purpose of each.
12)	Write a note on message transfer agent.
13)	Write a note on message delivery agent.
14)	Write a note on mail user agent.
15)	Write steps to setup Postfix as an SMTP sever.
16)	How to handle emails using Mutt? Explain.
17)	Explain various /etc/postfix/main.cf parameters.

18)	How to configure Dovecot for POP & IMAP?
19)	Explain parameters defined in Apache's configuration file (httpd.conf).
20)	How to configure Virtual Hosts in Apache?
21)	Write the steps for setting up SSL based virtual host.
22)	What are the directives used in .htpasswd file?
23)	How to setup Protected Web Server?

Unit 5	
1)	Explain the elements of good shell script with example.
2)	Short note on script arguments.
3)	Explain user defined input with example.
4)	Explain pattern matching with example.
5)	Write a shell script to demonstrate arithmetic operators.
6)	Write a shell script to demonstrate logical operators.
7)	List control structures in Linux shell scripting. Explain anyone in detail with example.
8)	What is GRUB? Explain grub.conf file in detail.
9)	Write short note on requirements & working of High Availability.
10)	What are the components required to build the cluster.
11)	How to configure cluster based services?
12)	Describe the setting up of an iSCSI initiator.
13)	How to configure Quorum Disk?
14)	Write short note on Fencing.
15)	How to create High Availability service for Apache.
16)	Write short note on configuring GFS2 file systems.
17)	Write short note on PXE Boot.
18)	Write the steps for setting up installation server.
19)	Explain the steps for setting up a TFTP & DHCP server for PXE boot.
20)	How to modifying the Kickstart file with system-config-kickstart?