QUESTION BANK TYBSc.I.T. SEM-V

Linux Administration

1. Explain the grep command used for searching a pattern with any 4 options.
2.. How to start and stop OpenSSH?
3. Discuss the privileges of Linux administrator.
4. Explain the standard file descriptors with suitable commands.
5. Describe the following commands: chown, chmod, expr.
6. Explain the cut command.
7. Write a note on commands for disk space management in linux.
8. Write a shell script to accept a filename. Check if the file exists and display the number of lines, words, and characters in the file. Display an appropriate message if the file is not present.
9. Explain the pipe feature in Unix with examples.
10. Write a note on the contents of the etc/passwd file.
11. Explain sort command with any three parameters.
12. What is the role of linux kernel in linux OS?
13. Explain the system memory management function in Linux.
14. What is a boot loader? Write a note on Grub or LILO.
15. Which commands are used for creating and maintaining user accounts in Linux? Explain with examples.
16 What are the duties of a system administrator?
17. What is meant by "monitoring and tuning performance" of a linux system?
18. Explain the following commands with examples: ls, rm, cp, mv, chown, chmod.
19. Which are the different file systems supported by Linux? Which feature of Linux makes this support possible (Virtual File Systems Layer)?
20. What are memory and virtual file systems? Explain any three (CRAMFS, RAMFS, PROC).
21. Write a short note on linux file permissions.
22. What is meant by Linux disk management? How can the user see the current file system and disk partitioning details on a Linux system? (fstab)
23. Write a note on system shell configuration scripts. What purpose do they serve? Explain the following: BASHRC, CSH, CSHRC.
24. What are CRON files?
25. What is the SYSLOG.CONF file?
26. Write a short note on Network File System. What are its advantages? What are its disadvantages?

TCP/IP Networking

1. Is IP address of a device the same as its MAC address? What are the differences between these two addresses?
2. What are network classes? State their IP number range. Explain the role of router.
3. Explain how a network interface card (NIC) is setup on a Linux system. Explain the ifconfig command.
4. Explain the purpose of the following files: /etc/hosts.conf, /etc/hosts, /etc/resolv.conf

5. How are IP addresses extended through subnetting?
6. Explain the Dynamic Host Configuration Protocol (DHCP).

Connecting to Microsoft Systems

1. How can computer systems using Windows operating system communicate with Linux systems? Explain the role of Samba in this process.
2. How is Samba installed on a Linux system?
3. What is SMB? Which OS uses this?

Internet Services:

1. What is an Internet Service? Name 5 commonly used services.
2. Write a note on ssh (secure shell), scp (secure copy) and sftp (Secure File Transfer Program).
3. Write a note on telnet, ftp, rsync, and rsh. Why are these services called insecure services?
4. Write a short note on finger, talk and ntalk. Are these services secure or unsecure?
5. Which are the common server protocols available on Linux?
6. Write a note on xinetd. How is it different from inetd?

Domain Name System

1. What is DNS? Why is it necessary? What are top level domains? Give 3 examples of TLDs.
2. What are the different types of domain name servers?
3. Explain the following terms: mail user agent, mail transfer agent, and local delivery agent.
4. Write a short note on SMTP, POP3, and IMAP4.
5. What steps can be taken to maintain email security?

Configuring a Web Server

1. State the features of Apache web server.
2. Explain how web servers work.
3. What is SSI? What are the advantages of using SSI? How is SSI enabled on Apache web server?
4. What is a secure web server? What are its components? Which packages are needed to create a secure web server?