

(2½ Hours)

[Total Marks: 75]

- N. B.: (1) **All** questions are **compulsory**.
 (2) Make **suitable assumptions** wherever necessary and **state the assumptions** made.
 (3) Answers to the **same question** must be **written together**.
 (4) Numbers to the **right** indicate **marks**.
 (5) Draw **neat labeled diagrams** wherever **necessary**.
 (6) Use of **Non-programmable** calculators is **allowed**.

1. **Attempt any three of the following:** 15
 - a. Why Red Hat Linux and Fedora has been so successful? Explain.
 - b. Explain any five commands to view the contents of text files.
 - c. Explain cut copy, paste and deleting operation in Vi editor.
 - d. What do you understand by mounting devices? Give example of mounting a USB flash drive.
 - e. How to set up your own repository?
 - f. Explain installing and updating packages with yum.

2. **Attempt any three of the following:** 15
 - a. What is use of fstab? Explain contents of fstab.
 - b. What is a swap space? Write procedure to add swap space.
 - c. What is NetworkManager configuration file? Explain any five network configuration file variables.
 - d. Write steps to enable and test the ssh server.
 - e. Explain different fields of /etc/passwd.
 - f. Write short note on connecting to an LDAP Server.

3. **Attempt any three of the following:** 15
 - a. Define Tables, Chains, and Rules. Explain most common elements of rules.
 - b. Write short note on IP Masquerading.
 - c. Write steps to encrypt and decrypt files using GPG.
 - d. Explain subdirectories need to store the certificate. Write procedure to create your own Certificate Authority.
 - e. Explain setting up NFSv4 with export options.
 - f. Write steps to set up a Samba server with example.

4. **Attempt any three of the following:** 15
 - a. Explain the DNS lookup process.
 - b. Write short note on DHCP (Dynamic Host Configuration Protocol).
 - c. Explain different parameters used in the /etc/postfix/main.cf file.
 - d. Explain components play role in the process of Internet mail.
 - e. What are modes of Apache? Explain some performance parameters for these modes.
 - f. How configure an Apache server to use LDAP?

5. **Attempt any three of the following:** 15
 - a. What are different ways to execute shell script? Explain in detail.
 - b. What is boot loader? Explain content of grub.conf file.
 - c. Explain different standard components (items) used in HA (High-Availability) cluster.
 - d. Write tips for Troubleshooting a Nonoperational Cluster.
 - e. Explain setting up the network installation server.
 - f. Explain kickstart file to perform an automated installation.