

(Time: $2\frac{1}{2}$ 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 two of the following:**10**

- What are different Linux distributions? Explain each in brief.
- Explain the duty of the Linux system administrator in backing up and restoring files.
- Explain the booting process of the Linux operating system in detail.
- Explain the Extended 3 file system.

2. Attempt any two of the following:**10**

- What are the different types of shells in Linux? Explain.
- Which are the network configuration files that are required to be changed while setting up a system or moving the system? Explain.
- What is Network file system? Explain in detail. Explain the two important NFS configuration files for using the features of NFSv4.
- What is dynamic host configuration protocol? How are DHCP server and client configured on Linux?

3. Attempt any two of the following:**10**

- What is Samba? What is server message block? Explain
- How are samba users created? Explain with examples.
- What is timeserver? Why is it required? What are the different types of time servers? How is it configured?
- What is a caching proxy? What are the uses of a caching proxy server?

4. Attempt any two of the following:**10**

- Discuss the http protocol and following daemons available in Linux: sshd, ftpd.
- How is xinetd server configured? Explain.
- Explain the nsswitch.conf and resolv.conf files. What are their uses?
- Explain the seven configuration statements used in named.ca file.

5. Attempt any two of the following:**10**

- What is POP3? What is IMAP4? Explain and compare them.
- How is vsftpd run over SSL? What are the SSL-related configuration directives for vsftpd over SSL? Explain.
- How can anonymous ftp access be disabled in vsftpd? Explain.
- Explain the configuration process of Postfix mail server?

6. Attempt any two of the following:**10**

- What are the changes in Apache 2.0 compared to Apache 1.x? Explain.
- Explain the userdel and usermod command with options and arguments.
- How can we build packages from source rpms? Explain the various valid build stages.
- What are the advantages of shadow passwords over traditional password system?

[TURN OVER]

7. Attempt any three of the following:

- a. Explain the RAID levels 0,1,5,6 and 10.
 - b. Explain the showmount command with options and example.
 - c. Explain in detail the configuration process of squid.
 - d. What are zone statements? Explain the different values for the zone statement.
 - e. What is vsftpd? Enumerate and explain its features and usability enhancements. What are the distinguishing features of ProFtpd?
 - f. Explain the AddHandler, AddLanguage, AddDefaultCharset and AddCharset directives.
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