

- 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 labelled diagrams** wherever **necessary**.  
(6) Use of **Non-programmable** calculators is **allowed**.

**1. Attempt any two of the following** **10**

- a. Explain the duty of Linux system administrator in monitoring and tuning performance.
- b. What are different Linux distributions? Explain any three in brief.
- c. Explain the stages of Linux boot process.
- d. Explain the Linux directory structure.

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

- a. State and explain any five files that deal with system environmental settings.
- b. What are the network files to be changed when we setup or move the system? Explain each in brief.
- c. What is DHCP server? How is it configured? How is DHCP client configured?
- d. What is network file system? What are the features of NFS4? What are advantages and disadvantages of NFS?

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

- a. How are samba users created? Explain.
- b. What is server message block protocol? Explain smbclient and smbmount commands.
- c. What are the tasks to be performed to setup Timeserver? Explain the steps to configure NTP Server and NTP client.
- d. What is caching proxy server? What are the steps in configuring squid? Explain  
*A caching proxy*

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

- a. Write a short note on SSH.
- b. How is xinetd server configured? Explain.
- c. What is BIND? Explain the files required to configure BIND server.
- d. Explain zone files and reverse zone files.

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

- a. State and explain the components required for email delivery process.
- b. Explain SMTP, POP3 and IMAP4 protocols.
- c. What is vsftpd? What are its features? Explain its configuration files.
- d. How can anonymous uploads and guest user accounts be enabled vsftpd? Explain.

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

**10**

- a. Explain the working and features of Apache web server.
- b. How is virtual server configured? Explain virtual server configuration directives.
- c. What are the advantages of shadow passwords over traditional password system?
- d. Explain the command to binary packages be built from source rpm packages with different valid build stages.

**7. Attempt any three of the following**

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- a. Compare GRUB and LILO boot loaders.
- b. An ISP is granted a block of addresses starting with 190.100.0.0/16 (65,536 addresses).
- c. Explain the different sections of smb.conf file.
- d. What is scp? Explain with examples.
- e. What are the features of Postfix Mail Server? Explain its primary configuration file.
- f. What is sudo? What are its features? How does succession work after the creation of configuration file?

