

Roll No.

Total No. of Pages :03

Total No. of Questions : 09

MCA (Sem.-02)

LINUX ADMINISTRATION

Subject Code : PGCA-1956

M.Code :79618

Date of Examination: 26-05-2025

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES:

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION - B & C. have FOUR questions each.**
3. **Attempt any FIVE questions from SECTION B & C carrying EIGHT marks each.**
4. **Select atleast TWO questions from SECTION - B & C.**

SECTION-A

1. Write short notes on:

- a. How do you create and edit files using the 'vi' editor in Linux?
- b. What are the common file permissions in Linux and how do you set them?
- c. Explain the role of the bootloader in the Linux boot process.
- d. What is the primary purpose of the BIND database file in DNS configuration?
- e. Describe the main configuration steps for setting up an Apache web server.
- f. Why is SMTP important in email communication, and how does it work?
- g. Differentiate between POP and IMAP in email protocols.
- h. How can you install and configure the Dovecot IMAP and POP3 server in Linux?
- i. Discuss the basics of the Samba server and its administration.
- j. What tasks are involved in creating a share using Samba?

SECTION - B

2. Describe the process of managing packages and users in a Linux system. Explain the steps involved in getting, unpacking, configuring, compiling and installing a package. Discuss the challenges and best practices in package management.
3. Discuss the role of user and group commands in Linux. Explain how to create, modify and manage users and groups. Provide examples of common user and group management tasks and the associated command-line tools.
4. Explore the vi text editor in-depth. Explain its various modes, common commands, and advantages in text editing. Provide practical examples of using vi for file editing and manipulation and discuss how it compares to other text editors.
5. Explain the process of file permissions management and manipulation in Linux. Discuss the various permission types (read, write, execute) and how they are assigned to files and directories. Provide practical examples of changing and managing file permissions for different scenarios.

SECTION - C

6. Describe the process of setting up a DNS server, including the installation, configuration, and use of the BIND database file. Explain the importance of DNS in internet communication and the role it plays in resolving domain names. Provide practical examples of DNS configuration.
7. Discuss the fundamentals of the HTTP protocol in web communication. Explain the key concepts behind HTTP requests and responses. Provide insights into how the Apache HTTP server works, along with detailed steps for its installation, startup and shutdown.
8. What are the mechanics of SMB and how does it facilitate file and print sharing between computers?
9. Explore the basics of POP and IMAP in email protocols. Explain their differences and how they affect email retrieval. Describe the installation and configuration of the UWIMAP and POP3 servers in a Linux environment. Discuss the importance of email servers in managing messages.

NOTE: Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.