K26P 0075

Reg. No. : ....

Name : ....

I Semester M.C.A. Degree (C.B.S.S. – Reg./Supple./Imp.) Examination, November 2025
(2022 Admission Onwards)
MCA1C05 : LINUX ADMINISTRATION

Time : 3 Hours

Max. Marks : 60

SECTION – A

Answer **all** questions. **Each** question carries **two** marks. (10×2=20)

1. List two important kernel parameters that can be viewed or changed in Linux.

2. What is the purpose of the /etc/hosts file?

3. Explain the function of logrotate.

4. What is a Named Pipe ?

5. Differentiate between a client and a server program in the context of network applications.

6. List the three main components of the Process ID structure.

7. What is the function of the traceroute command ?

8. What is SNMP ?

9. List two common uses of a Secondary DNS Server.

10. What is a Virtual Host in the context of a Web Server ?

SECTION – B

Answer **all** questions. **Each** question carries **eight** marks. (5×8=40)

11. a) Explain the role of the init process and the files it relies on for system startup. Describe how it handles the different run levels.

OR

b) Explain the concepts of Disk Quotas and System Backups as essential features of system maintenance.

P.T.O.

12. a) Describe how System Security is maintained in Linux, focusing on the roles of file permissions, password aging and TCP Wrappers.

OR

b) Explain the process of managing user and group accounts in Linux, including the purpose of the /etc/passwd and /etc/group files.

13. a) Describe the use of Socket Programming in Linux for creating Client/Server Programs. Explain the basic system calls used by the server to set up communication.

OR

b) Explain the various methods of Gateway Configuration and the use of the netstat command for monitoring network connections.

14. a) Explain the working of HTTP and role of the Web Server in serving HTTP requests.

OR

b) Explain the purpose and working of Firewalls and IPtables in securing a Linux network.

15. a) Explain the concept of domain name resolution and the roles of primary and secondary DNS servers.

OR

b) Explain SMTP, POP and MIME in detail.