CB

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MASTER OF COMPUTER APPLICATIONS (MCA)

EXAMINATION : JUNE - 2025

SEMESTER - I

Sub : Advanced Linux & Shell Programming (MCA24-104)

Date : 12/06/2025 **Total Marks : 60** **Time: 10.00 am To 12.30 pm**

Instruction:

1. *All questions are compulsory unless and otherwise stated.*
2. *Bold figures to the right of every question are the maximum marks for that question.*
3. *Candidates are advised to attempt questions in order.*
4. *Answers written illegibly are likely to be marked zero.*
5. *Use of scientific calculators, Log tables, Mollier Charts is allowed.*
6. *Draw neat and labelled diagram wherever necessary.*

Q. 1. Answer the following in 2-3 lines. (Any 5) (10)

1. List the features of Linux Operating System.
2. List various UNIX and Linux flavors (names)
3. List basic file permissions in Linux with its numeric value.
4. What is the use of /bin and /root directories in Linux.
5. Explain the use of wall command in Linux with options & examples.
6. What is the use of touch command in Linux? Explain with examples.
7. What is the use of man command in Linux? Give example.

Q. 2. Answer the following in short. (Any 4) (20)

1. Explain the use of useradd , passwd and groupadd commands in Linux with options & examples.
2. What is the use of VIM editor? What are its modes of operations? Explain in detail.
3. What are softlinks and hardlinks in Linux? Compare both with diagrams & give examples to create it.
4. Write a procedure to create, format and mount data partition in Linux.
5. Explain the working of du, df and fsck commands in Linux with options & examples.
6. Explain working of ps, top and kill commands with various options & examples.

Q. 3. Answer the following in detail. (Any 3) (30)

1. Write a stepwise procedure to install Linux O.S. in detail.
2. Explain working of cp, mv, mkdir and rm commands with various options & examples.
3. What is scheduling in Linux? Write a procedure to schedule a task (use crontab command) to take a backup of /home directory using tar command everyday at 10.30PM
4. What is the use of rpm command in Linux? Explain with various options & examples.
5. What is the use of shell script in Linux? State its advantages. Write a shell script to lock the users between UIDs 1000 to 1010.