Batch 2024-2026

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MASTER OF SCIENCE (M.Sc) IN COMPUTER APPLICATIONS
EXAMINATION : DECEMBER - 2025
SEMESTER – I
Sub : Advanced Linux & Shell Programming (MSC24 -104)

Date : 27/12/2025 **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 advantages of Linux O.S.
2. List UNIX and Linux Flavors (Names)
3. Define User Space in Linux.
4. What is the use of /home and /sbin directories in Linux?
5. List various types of help levels available in Linux.
6. List various shells used in Linux.
7. Define Daemons in Linux. Give examples of Daemon processes in Linux.

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

1. Explain the use of touch, mkdir and ls commands in Linux with various options & examples.
2. Define soft links & hard links in Linux. Compare both with diagrams & give examples to create them.
3. Explain working of rpm command with various options and examples.
4. Explain the use of useradd, passwd and groupadd commands in detail with options & examples.
5. What is the use of pstree, ps, bg and fg commands in Linux? Explain with options and examples.
6. Explain working of nmtui, ping and hostname commands in detail with options & examples.

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

1. Explain Linux Directory Structure (Linux File System Hierarchy) in detail with diagram.
2. Explain working of VIM editor with examples. State its advantages & disadvantages.
3. Define process in Linux. State its different process states in detail.
4. Define backup. Explain backup and restore procedure in Linux with appropriate commands and examples in detail.
5. Define shell script in Linux. State its advantages & disadvantages. Give any one example of shell script.