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MASTER OF SCIENCE (M.Sc) in COMPUTER APPLICATIONS

EXAMINATION : DECEMBER - 2024

SEMESTER - I

Sub : Advanced Linux & Shell Programming (MSC24 -104)

Date : 28/12/2024

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 features of Linux O.S.
2. List different shells used in Linux.
3. Define inode in Linux.
4. What is the use of /bin & /sbin directories in Linux?
5. List special types of file permissions in Linux with its numeric value.
6. How to set user passwords in Linux? Explain with options and examples.
7. List different process states in Linux.

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

1. Explain the use of touch, cat and mkdir commands in Linux with various options and examples.
2. Compare between soft links and hard links with diagrams. How to create soft links and hard links? Give examples
3. Explain use of useradd, groupadd & userdel commands with options & examples.
4. Compare between RAID 1 and RAID 5 levels with diagram. State its features , advantages and disadvantages.
5. Write a note on VIM editor. State its advantages and disadvantages.
6. Explain the use of xfsdump and xfsrestore commands with various options and examples.

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

1. Explain Linux File System Hierarchy (Linux Directory Structure) in detail with diagram.
2. Explain the use of pstree, ps, top and kill commands in Linux in detail with options & examples.
3. What is the use of scheduling in Linux? Explain working of “at” command in detail with various options and examples.
4. Explain working of any four Network Management commands in detail with options and examples.
5. What is shell script in Linux? When it should be used? State its advantages and disadvantages.