TILAK MAHARASHTRA VIDYAPEETH, PUNE
MASTER OF COMPUTER APPLICATIONS
EXAMINATION : JANUARY- 2023
SEMESTER - I
Sub : Linux & Shell Programming   (MCA- 102-22)

Date : 05/01/2023   **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.

2. Define inodes in Linux.

3. Explain the working of touch command with examples.

4. What is the use of wall command? Give example.

5. List types of special permissions in Linux with its long form and its numeric value.

6. Define kernel space in Linux.

7. What is the use of /etc directory in Linux?

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

1. Explain use of groupadd and groupdel commands with options and examples.

2. Explain working of VIM editor. State its modes of operations.

3. What is the use of YUM? Explain with various options and examples.

4. Define signals in Linux. How signals are send to processes. Give examples.

5. Explain working of tar command with various options and examples.

6. Define shell script. State its advantages and disadvantages.

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

1. Explain the working of Linux File System Hierarchy (Linux Directory structure) with diagram.

2. What are standard I/O channels used in Linux? Explain common redirection operators used in Linux.

3. What is the use of ping, ifconfig, ifup and ifdown command in Linux? Explain with examples.

4. Define process. What are different states of processes? Explain kill command with examples.

5. Write a shell script to lock the users between UID 1000 to 1010.