

**TILAK MAHARASHTRA VIDYAPEETH, PUNE**  
**MASTER OF COMPUTER APPLICATIONS**  
**EXAMINATION : MAY - 2024**  
**SEMESTER - I**

**Sub : Linux & Shell Programming (MCA- 102-22)**

**Date : 30/05/2024**

**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. State the advantages of Linux operating system.
2. State the features of bash shell.
3. What is the use of useradd command.
4. List the various commands used to shut down the Linux operating system.
5. List special types of file permissions used in Linux with its numeric value.
6. Define inode in Linux.
7. What is the use of /tmp and /etc directories in Linux.

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

1. What is the use of YUM command in Linux? Explain with various options and examples.
2. What is the use of groupadd, groupdel and groupmod commands in Linux? Explain with examples.
3. What is the use of xfsdump and xfsrestore commands in Linux? Explain with various examples.
4. Define RAID in Linux. Compare RAID 1 and RAID 5 levels in Linux with diagram.
5. What is the use of VIM editor in Linux? State its features, advantages and disadvantages.
6. What is the use of tar command in Linux? Explain with various options and examples.

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

1. Write a step by step procedure to install Linux operating system.
2. Explain ps, pstree, top and kill commands in Linux with options and examples.
3. What are the different I/O channels used in Linux? Give examples of it. Explain common redirection operators used in Linux.
4. Explain any four network management commands with various options and examples.
5. What is the use of shell script in Linux? When it should be used? State its advantages.

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