DAYANANDA SAGAR UNIVERSITY

Assignment – 3

Subject: Linux Programming

Name: Amanpatel Biradar

USN: ENG24CY0081

Roll No: 13

1. **Difference between man and whatis commands:**
- `man`: Displays detailed manual pages with full documentation.
- `whatis`: Shows a one-line short description of a command.
Example:
`man ls` → Opens full manual.
`whatis ls` → Shows: ls (1) – list directory contents.

2. **Using tee to save output of ls -l while displaying it:**
Command:
`ls -l | tee output.txt`
This displays and saves the output simultaneously.

3. **Usage of tee command in logging:**
Example:
`dmesg | tee system_log.txt`
This stores kernel logs into a file while showing them on screen.

4. **Steps to install Ubuntu 25.04 LTS on VirtualBox:**
1. Download Ubuntu ISO.
2. Open VirtualBox → New VM.
3. Allocate RAM & storage.
4. Attach ISO under Storage → Optical Drive.
5. Start VM → Install Ubuntu.
6. Configure user details and finish installation.

5. **Kernel Panic Error troubleshooting:**
- Restart system and check boot logs.
- Ensure ISO or virtual disk isn't corrupted.
- Increase VM RAM.
- Enable virtualization.
- Repair GRUB using live boot if needed.

6. **Command to display hostname:**
`hostname`
Change hostname using sysctl:
`sudo sysctl kernel.hostname=newname`

7. **Command to show 1984 calendar with August:**
`cal 8 1984`

8. **Command to display uptime and logged-in users:**
`uptime && who`

9. **Use find to list all .c files in /home/user:**
`find /home/user -name "*.c"`

10. **Change file permissions to allow only owner read/write:**
`chmod 600 filename`