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**SUBJECT: LINUX PROGRAMMING**

**TOPIC: ASSIGNMENT 3**

**Linux Programming: Assignment-3 Answers**

**1. Distinguish between man and whatis commands? Justify with proper example?**

* The man command shows the manual of a command in detail Example: man ls The whatis command shows a short description of a command Example: whatis ls

**2. Use the tee command to save the output of ls -l into a file while also displaying it.?**

* ls -l | tee file.txt Command

**3. Explain with an example how the tee command can be used in logging?**

* The tee command can save logs and show them at the same time. Example: dmesg | tee log.txt

**4. List the steps involved in installing Ubuntu 25.04 LTS on Oracle VirtualBox?**

* Steps: 1. Download Ubuntu ISO 2. Open VirtualBox and create a new VM 3. Select Linux - Ubuntu 4. Set memory and hard disk 5. Attach Ubuntu ISO 6. Start VM and install Ubuntu

**5. During Ubuntu OS installation, you face a Kernel Panic Error. How would you troubleshoot it?**

* Fixes: 1. Check ISO file is correct 2. Give more RAM or CPU 3. Enable virtualization in BIOS 4. Update VirtualBox version 5. Try a fresh Ubuntu ISO download

**6. Write the command to display the system’s hostname? How to change hostname using sysctl command?**

* Show hostname: hostname Change hostname: sudo sysctl kernel.hostname=newname

**7. Which command is used to show the calendar of the year 1984 with August month?**

* cal 8 1984 command

**8. Write a command to display system uptime and logged-in users together?**

* uptime && who command

**9. Use the find command to list all “.c” files in /home/user. ?**

* find /home/user -name “\*.c" command

**10. How do you change file permissions to allow only the owner to read and write?**

* chmod 600 filename command