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Reg. No……
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DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE, NOVEMBER – 2024

SERVER ADMINISTRATION

[Maximum Marks: **75**] [Time: **3** Hours]

PART-A

I. Answer '*all*' the following questions in one word or one sentence. Each question carries *'one'* mark.

(9 x 1 = 9 Marks)

		Module Outcome	Cognitive level
1.	..... is used to change the ownership of a file in Linux?	M1.02	R
2.	Which command is used to change the group ownership of a file?	M1.02	R
3.	Name the command to create a new user in Linux.	M2.01	R
4.	How can you remove a user from a supplementary group?	M2.01	R
5.	Which command is used for setting up NICs in linux?	M3.01	R
6.	Name the main configuration file for the vsftpd FTP server.	M3.02	R
7.	What is the full form of SSH?	M3.02	R
8.	What is the full form of DHCP?	M4.01	R
9.	What is the full form of NFS?	M4.01	R

PART-B

II. Answer any '*eight*' questions from the following. Each question carries *'three'* marks.

(8 x 3 = 24 Marks)

		Module Outcome	Cognitive level
1.	How the Debian package management system is used to install a software package.	M1.04	R
2.	Illustrate the mounting of a local disk in a Linux system.	M2.03	U
3.	What are the benefits and advantages of Apache Web Server?	M3.02	R
4.	Explain SSH server settings. Also, explain the configurations to change the default SSH port.	M3.02	U
5.	How network configuration utilities on Linux are used to view the current network interface settings of a system.	M3.01	R
6.	How the route command is used to add a new route to a specific network?	M3.01	R
7.	Explain any one command line backup tools in linux with example.	M4.03	U
8.	List different commands used to print and manage print queues.	M4.02	R
9.	Explain the role of a DHCP server in the network. How does it facilitate IP address assignment to clients?	M4.01	U
10.	What are the roles of Samba in a network environment? What primary function does it serve?	M4.01	R

PART-C

Answer '*all*' questions from the following. Each question carries *'seven'* marks.

(6 x 7 = 42 Marks)

		Module Outcome	Cognitive level
III.	Explain the steps involved in building the Linux kernel.	M1.05	U
	OR		
IV.	Develop the steps for applying a patch to the Linux kernel.	M1.05	A
V.	What are the roles of package managers in Linux distributions? How do they simplify software installation and management?	M1.04	R
	OR		
VI.	Demonstrate your understanding of kernel functionality. List and explain the tasks performed by the kernel during system operation?	M1.05	U
VII.	Explain how a runaway process consuming excessive resources problem is solved using the information gathered from top and ps commands.	M2.04	U
	OR		
VIII.	Illustrate the mounting process in the Linux file system.	M2.03	U
IX.	Explain the role of Linux log files in system administration. How do log files contribute to system monitoring and diagnostics?	M2.05	U
	OR		
X.	Summarize the significance of bootstrapping during system startup. Explain the sequence of events from power-on to the execution of the kernel.	M2.02	U
XI.	Develop the steps for the configuration of vsftpd to allow anonymous FTP access.	M3.02	A
	OR		
XII.	Develop the steps for the installation of the Apache web server on a Linux system.	M3.02	A
XIII.	Explain common scenarios where NFS is used in network environments. What are the typical applications and benefits of NFS?	M4.01	U
	OR		
XIV.	Explain how DHCP works. What is the process by which a device obtains an IP address from a DHCP server?	M4.01	U

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