

Reg. No.																			
----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

B.Tech/ M.Tech (Integrated) DEGREE EXAMINATION, MAY 2024
Fifth Semester

21CSE399J – COMPREHENSIVE LINUX FOR ALL
(For the candidates admitted from the academic year 2022-2023 onwards)

Note:

- (i) **Part - A** should be answered in OMR sheet within first 40 minutes and OMR sheet should be handed over to hall invigilator at the end of 40th minute.
- (ii) **Part - B** and **Part - C** should be answered in answer booklet.

Time: 3 Hours

Max. Marks: 75

PART – A (20 × 1 = 20Marks)

Marks BL CO

Answer ALL Questions

- | | | | |
|-----------------------------------------------------------------------------------|---|---|---|
| 1. What is kernel? | 1 | 1 | 1 |
| (A) brain of the computer | | | |
| (B) heart of the OS | | | |
| (C) intermediater between hardware and OS | | | |
| (D) intermediater between human and OS | | | |
| 2. (A) Which shell has been used by Ubuntu? | 1 | 1 | 1 |
| (A) powershell | | | |
| (B) terminal | | | |
| (C) bash shell | | | |
| (D) command prompt | | | |
| 3. (A) Does linux requires an Antivirus. | 1 | 1 | 1 |
| (A) Yes | | | |
| (B) Maybe | | | |
| (C) Not sure | | | |
| (D) No | | | |
| 4. What is the command to check the current functioning directory? | | | |
| (A) ls | | | |
| (B) pwd | | | |
| (C) ls-d | | | |
| (D) pws | | | |
| 5. What is the command to change group ownership directly? | 1 | 1 | 2 |
| (A) chown | | | |
| (B) chroot | | | |
| (C) chgrp | | | |
| (D) chmod | | | |
| 6. What is symbolic equivalence of octal permission '4'. | 1 | 2 | 2 |
| (A) rw- | | | |
| (B) r-x | | | |
| (C) r-- | | | |
| (D) -wx | | | |
| 7. Which environment variable do you use the most in your daily work or projects? | 1 | 1 | 2 |
| (A) HOME | | | |
| (B) PATH | | | |
| (C) TEMP | | | |
| (D) LOG | | | |
| 8. (A) How to save and quit the file in VI editor. | 1 | 1 | 2 |
| (A) :we | | | |
| (B) :wq | | | |
| (C) :q! | | | |
| (D) :ws | | | |

9. Data between the ssh server and client is _____ ? 1 1 3
 (A) plain-text (B) hashed
 (C) encrypted (D) encoded
10. What is the command to start the webservice in a webserver automatically after reboot? 1 1 3
 (A) systemctl enable httpd.service (B) systemctl being httpd.service
 (C) systemctl start httpd.service (D) systemctl init httpd.service
11. what is the command for network management in RHEL OS choose? 1 1 3
 (A) nmcli (B) ncml
 (C) ntcli (D) nmtui
12. How to run a process in the background? 1 1 3
 (A) ? (B) !
 (C) & (D) *
13. What is the tool used for container management? 1 1 4
 (A) httpd (B) podman-init
 (C) podman (D) httpd-tools
14. Containerized applications are applications that run in _____ runtime environments called containers. 1 1 4
 (A) System (B) Isolated
 (C) Non-isolated (D) Program
15. Which of the following statements is most correct? 1 1 4
 (A) Podman allows you to run images and build containers (B) Podman allows you to run and build images
 (C) Podman allows you to run containers and build images (D) Podman allows you to run and build containers
16. What is the default port number on which webserver can be accessed? 1 1 5
 (A) 88 (B) 80
 (C) 82 (D) 84
17. Majorly cloud computing use _____ pricing scheme. 1 1 6
 (A) Pay-as-you-go (B) Pay-before-use
 (C) Pay-after-use (D) Pay-now-use-later
18. What is the purpose of the nmap tool in Kali Linux? 1 1 5
 (A) Password cracking (B) Network discovery
 (C) Vulnerability scanning (D) Exploiting network vulnerabilities
19. Before container what technology we use for solving dependency issue? 1 1 5
 (A) DevOps (B) Bare-Metal
 (C) Virtualization (D) Cloud
20. What is the command to format the disk? 1 1 5
 (A) mkfp (B) mkfs
 (C) mkfc (D) mkft

PART – B (5 × 8 = 40 Marks)

Answer ALL Questions

	Marks	BL	CO
21. a.i. How Linux is different from other OS?	4	2	1
ii. Write the advantages of Linux OS and list its various distributions.	4	2	1
(OR)			
b. Explain linux file hierarchy structure with neat diagram.	8	2	1
22. a.i. Explain file permission commands with suitable examples.	6	2	2
ii. How to create user and move to particular group in linux OS.	2	2	2
(OR)			
b. What are the different type of variables used in a shell Script?	2 ⑧	2	2
ii. How to make a shell script executable?	6 ②	2	2
23. a. Write a shell script program to count the number of words, characters and line in a text file.	8	2	3
(OR)			
b. Write a shell program to replace the particular string in a file.	8	2	3
24. a. Explain the steps with appropriate commands to create a container web server application.	8	2	5
(OR)			
b. Explain the steps with commands to share a directory using NFS.	8	2	5
25. a. Briefly explain the configuration of databases in linux OS.	8	2	6
(OR)			
b. Write short notes on		2	6
(i) GIT	4		
(ii) AWS	4		

PART – C (1 × 15 = 15 Marks)

Answer ANY ONE Question

	Marks	BL	CO
26. Create Combined Storage of I OG using vdc and vdd disk in Server B.		3	5
(i) Create a VG with name company and create a LV of Size 2G for development department and mount it to [dev. use ext2 FS.	5		
(ii) Create a LV of size 1.5G for testing department and mount it to [prod (use extend method). Use ext3 FS.	5		
(iii) Create a LV of size 800MB for QA department and mount it to /dept. Use xfs FS.	5		

- | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|
| 27.i. Initiate NFS Server in Workstation and use /myshare as the directory to be shared in the network. Use Server A and Server B Client. | 5 | 3 | 5 |
| ii. Mount /myshare in server A temporarily and create a directory called mydocs and create a file inside mydocs as myletters.txt. | 5 | 3 | 5 |
| iii. Mount /myshare in Server B permanently and edit the myletters.txt with the following content "Hurray !! My Share is Working". Assume necessary permission. | 5 | 3 | 5 |

* * * * *