

**2023/TDC(CBCS)/ODD/SEM/
CSCSEC-301T/089**

TDC (CBCS) Odd Semester Exam., 2023

COMPUTER SCIENCE

(3rd Semester)

Course No. : CSCSEC-301T

(Unix/Linux Programming)

Full Marks : 50

Pass Marks : 20

Time : 3 hours

**The figures in the margin indicate full marks
for the questions**

SECTION—A

**Fill in the blank/Answer fifteen questions,
selecting any three from each Unit : $1 \times 15 = 15$**

UNIT—I.

- 1. What is booting?**
- 2. What is Unix?**
- 3. Write down the functions of Linux OS.**
- 4. Write one feature of Linux.**

(2)

UNIT—II

5. What is the purpose of 'wait' command?
6. What is the use of 'pwd' command?
7. What is external command?
8. Mention the syntax of 'grep' command.

UNIT—III

9. Mention different types of user in Unix system.
10. _____ command is used to create user.
11. What does '/bin' directory contain?
12. What does 'x' in directory permissions of Linux indicate?

UNIT—IV

13. What is shell?
14. How do you declare a shell variable?
15. What is the extension of a shell script file?
16. How to save a file in Vi editor?

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(Continued)

(3)

UNIT—V

17. What is the purpose of 'join' command?
18. Define system call.
19. How will you double-space a file?
20. What is the use of 'paste' command?

SECTION—B

Answer *five* questions, selecting *one* from each

Unit :

2×5=10

UNIT—I

21. State the differences between open-source software and free software.
22. What are the security features of Unix?

UNIT—II

23. What are the differences between internal and external commands?
24. Which command is used to create a process?
How to track ongoing process in Linux?

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(Turn Over)

(4)

UNIT—III

25. What is quota management in Linux?
26. What are the file permissions in Linux?

UNIT—IV

27. Write down the steps to execute shell script.
28. What are Bourne shell and C shell?

UNIT—V

29. What are pipes and filters?
30. Write the general syntax of if-else statement in shell script.

SECTION—C

Answer *five* questions, selecting *one* from each
Unit : $5 \times 5 = 25$

UNIT—I

31. Discuss the architecture of a Linux operating system.
32. Explain the benefits of using Linux as an operating system.

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(Continued)

(5)

UNIT—II

33. What is process in Unix? Discuss the mechanism of process creation in Unix.
34. Write the uses of the following commands :
- (a) sudo
 - (b) ping
 - (c) cat
 - (d) rmdir
 - (e) cp

UNIT—III

35. Explain directory structure of Unix in detail.
36. What is file ownership in Linux? Discuss their functions.

UNIT—IV

37. Discuss the three modes of operation in Vi editor.
38. Write a shell script to find the area and circumference of a circle.

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(Turn Over)

UNIT—V

39. Discuss the different types of loops used in shell script.
40. Write a shell script to generate Fibonacci series.

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UNIT—IV