

**2020/TDC (CBCS)/ODD/SEM/  
CSCSEC-301T/089**

**( 2 )**

**TDC (CBCS) Odd Semester Exam., 2020  
held in March, 2021**

**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**

Answer any *fifteen* of the following as directed :  
1×15=15

1. What is system library?
2. What is Linux?
3. Name one popular distribution of Linux.

10-21/97

( Turn Over )

4. Define operating system.
5. What do you mean by open-source software?
6. Write down the function of user mode execution of an OS.
7. Define process.
8. What is internal command?
9. What is the use of 'cat' command?
10. exec command in Linux is used to \_\_\_\_.  
( Fill in the blank )
11. Write down the purpose of 'man' command.
12. Commands which are not built into the shell are known as \_\_\_\_.  
( Fill in the blank )
13. What is a file?
14. Linux is a multiuser operating system.  
( Write True or False )
15. What is inode?
16. What does /boot file contain?
17. Write a command to create a user in Linux.

10-21/97

( Continued )

( 3 )

18. \_\_\_ command is used for view and modify users password.

( Fill in the blank )

19. What is shell?

20. Define shell variables.

21. What do you mean by scripting language?

22. \_\_\_ command is used to insert text at the end of current line in vi editor.

( Fill in the blank )

23. Write down the use of 'echo' in shell script.

24. How do you execute .sh extension file?

25. What is system call?

26. Write the uses of pipe command.

27. Write the general syntax of if-else statement.

28. Write the uses of tail command.

29. What do you mean by decision making statement?

30. \_\_\_ command removes duplicate lines.

( Fill in the blank )

10-21/97

( Turn Over )

( 4 )

SECTION—B

Answer any *five* of the following questions : 2×5=10

31. Write down the different components of Linux OS.

32. State the difference between Linux and Windows OS.

33. Define foreground and background processes.

34. Name any two system calls and write their uses.

35. How do you change directory permissions in Linux? Write down the commands for that.

36. Write down the purposes of the following user management commands :

(a) useradd

(b) chage

(c) passwd

(d) userdel

37. Discuss two main shells in Linux.

38. Write a shell script to calculate the simple interest.

10-21/97

( Continued )

( 5 )

39. Explain any one looping statement in shell scripting.
40. Write a code segment to find the largest of two numbers.

SECTION—C

Answer any *five* of the following questions : 5×5=25

41. Discuss the basic features of Linux.
42. Discuss the benefits of using Linux as an OS.
43. Write short notes on the following :
- (a) Daemon process
  - (b) Orphan process
44. Write the uses of the following commands :
- (a) cd
  - (b) rmdir
  - (c) mv
  - (d) ps
  - (e) telnet
45. Explain the directory structure of Unix in detail.

( 6 )

46. Discuss the following two authorization levels of file permission in Linux :
- (a) Ownership
  - (b) Permission
47. Discuss the different modes of operation in vi editor.
48. Write any five commands and their descriptions used for operations in vi editor.
49. Write a shell script to calculate the sum of digits of an integer number.
50. Write a shell script to find the maximum of three numbers.

★ ★ ★