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Code No. : 6023

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M.C.A. (CBCS) DEGREE EXAMINATION,
APRIL 2025.

First Semester

Computer Application – Core

LINUX AND SHELL PROGRAMMING

(For those who joined in July 2023 onwards)

Time : Three hours Maximum : 75 marks

PART A — (15 × 1 = 15 marks)

Answer ALL questions.

Choose the correct answer :

1. The _____ is the gateway to the shell, used to place to enter shell commands.
(a) Editor (b) Prompt
(c) Menu bar (d) Title bar
2. The section area "special files" in the man page has the section number _____.
(a) 1 (b) 2
(c) 3 (d) 4
3. The command _____ is used to display files and directories in the current directory.
(a) ls (b) lp
(c) lr (d) lq
4. Which one of the following is iterative statement?
(a) if (b) switch
(c) for (d) exit
5. The _____ key combination generates a SIGTSTP signal stopping any processes running in the shell.
(a) ctrl+z (b) ctrl+a
(c) ctrl+b (d) ctrl+c
6. The _____ command is a way to prematurely stop processing commands inside of a loop but not terminate the loop completely.
(a) while (b) for
(c) until (d) continue

7. _____ variables are variables that are valid anywhere within the shell script.
(a) Local (b) Global
(c) Internal (d) Static
8. The _____ command allows you to create a menu from a single command line and then retrieve the entered answer and automatically process it.
(a) select (b) cat
(c) see (d) tee
9. The sed editor is called a _____ editor.
(a) simple (b) stream
(c) special (d) extream
10. A _____ is a pattern template to define that a linux utility uses to filter text.
(a) Filter expression (b) Linux expression
(c) Regular expression (d) Editor expression
11. The _____ character is used to match any single character except a newline character.
(a) Caret (b) Dollar
(c) Slash (d) Dot

12. The _____ space is an active buffer area that holds the text examined by the sed editor while it processes commands.
(a) Pattern (b) Buffer
(c) Linux (d) Editor
13. The dash command line parameter _____ is used to exports all variables assigned to the shell.
(a) - C (b) - f
(c) - n (d) - a
14. The first line of the shell _____.
(a) #!/bin/dash (b) #<include>
(c) #\$/bin/shell (d) dash/shell/#
15. The _____ provide information about the type of data sent in the connection, the server sending the data, and the type of security used in the connection.
(a) Cookies (b) HTML content
(c) HTTP headers (d) Directory

PART B — (5 × 4 = 20 marks)

Answer ALL questions, choosing either (a) or (b).
Each answer should not exceed 250 words.

16. (a) How to display a long listing?
Or
(b) What is the use of 'exit' command?
17. (a) How to read parameter in bash shell?
Or
(b) Give a brief note on Restarting stopped jobs.
18. (a) Differentiate Global Versus Local Variables.
Or
(b) Define Sed and Gawk.
19. (a) What are Regular Expressions?
Or
(b) Write short note on Negating a command.
20. (a) What is dash shell?
Or
(b) How to watch disk space?

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).
Each answer should not exceed 600 words.

21. (a) Describe handling and managing files and directories.
Or
(b) With syntax, explain the different types of if statements available in bash shell.
22. (a) Write short note on the following commands :
(i) for
(ii) while.
Or
(b) Describe the different options available to get user input.
23. (a) Define the term Recursion. Write a sample code to find factorial using recursion.
Or
(b) How to create text menus in a shell script?

24. (a) What is the use of Branch and Test commands of the sed editor script?

Or

(b) Explain in detail about built in variables and user defined variables.

25. (a) How to script with Zsh shell? Explain.

Or

(b) List out and describe the steps involved in using database in your scripts.
