

**Fourth Semester B.C.A. Degree Examination, September 2020**

*(CBCS Scheme)*

**Computer Science**

**UNIX OPERATING SYSTEM**

*Time : 3 Hours]*

*[Max. Marks : 90*

*Instructions to Candidates : Answer all Sections.*

**SECTION – A**

I. Answer any **TEN** questions : **(10 × 1 = 10)**

1. What is Unix?
2. Mention the usage of tput command.
3. What is relative path?
4. Define piping.
5. Define regular expression.
6. Give the usage of tail command.
7. Define Zombie process.
8. How to change the priority of a process?
9. What is VIM?
10. What is the command used to copy current line in VI editor?
11. What is the use of shift command?
12. Give the usage of ftp.

## Q.P. Code – 68432

### SECTION – B

II. Answer any **FIVE** questions :

(5 × 3 = 15)

13. What are the features of Unix? Explain.
14. Explain the types of files in Unix.
15. Explain the following :  
(a) wc (b) tr (c) tar
16. What are the types of process? Explain.
17. Mention and explain different modes of VI editor.
18. Write a shell script for basic arithmetic operations.
19. Explain logical operators in shell programming.

### SECTION – C

III. Answer any **SIX** questions :

(6 × 5 = 30)

20. With the help of diagram explain architecture of Kernel.
21. Explain Unix directory structure.
22. How to change file permission? Explain in detail.
23. Give the usage of following commands :  
(a) write (b) wall (c) mail (d) mesg (e) finger
24. Explain cursor movement commands in VI editor.
25. Write a shell script to count number of vowels in a given string.
26. What are the looping statements in Unix? Explain.
27. What are positional parameters? Explain with an example.

SECTION – D

IV. Answer any **FIVE** questions : (5 × 7 = 35)

28. (a) Explain unix file system.  
(b) Explain any three directory related commands. (4 + 3)
29. Explain following commands with options and examples.  
(a) sort  
(b) cut (4 + 3)
30. What is process? Explain different states of a process with the help of process transition diagram.
31. (a) Explain the mechanism of process creation.  
(b) Differentiate between egrep and fgrep. (4 + 3)
32. Write a Shell script to find gcd and lcm of two numbers using functions.
33. (a) What are System Variables? Explain any four system variables.  
(b) What is the use of set command? (5 + 2)
34. (a) Explain any four process related commands.  
(b) Explain Shell and its types. (4 + 3)
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