

B.C.A. (Pt. - III)

LIN. & SHE. PRO.

336(C)

B.C.A. (Part - III) EXAMINATION, 2019

(Faculty of Science)

(Three - Year Scheme of 10+2+3 Pattern)

LINUX AND SHELL PROGRAMMING - 336(C)

Time Allowed : Three Hours

Maximum Marks : 100

Answer of all the questions (short answer as well as descriptive) are to be given in the main answer-book only. Answer of short answer type questions must be given in sequential order. Similarly all the parts of one question of descriptive part should be answered at one place in the answer-book. One complete question should not be answered at different places in the answer - book.

Write your roll number on question paper before start writing answers of questions.

Question paper consists of three Parts. All THREE parts are compulsory.

PART - I : (Very Short Answer) consists of 10 questions of 2 marks each. Maximum limit for each question is upto 40 words.

PART - II : (Short answer) consists of 5 questions of 4 marks each. Maximum limit for each question is upto 80 words.

PART - III : (Long answer) consists of 5 questions of 12 marks each with internal choice.

PART - I

1. (a) What is the advantage of open source ?
- (b) What do you understand by Linux Kernel ? Explain.
- (c) Explain the 3 kinds of file permissions under LINUX.
- (d) Define mounting and unmounting.
- (e) What is shell script ?
- (f) What are grep commands ?
- (g) How to exit from vi editor ? Give commands.
- (h) What are pipes ?
- (i) Differentiate between while and until loop.
- (j) Give syntax and purpose of eval command.

10x2=20

PART - II

2. (a) What are the different benefits of LINUX ? Explain in brief.
- (b) Briefly explain different types of files in LINUX.
- (c) Give syntax and purpose of sort command.
- (d) Describe major types of shells available with linux.
- (e) With the help of suitable example, explain case statement of linux shell programming.

5x4=20

PART - III
UNIT - I

3. What is LINUX O.S. ? How is LINUX different from UNIX ? Also explain various components of LINUX in detail. 5x12=60

OR

What are the major goals or objectives to secure any O.S ? Describe security features of LINUX in brief.

UNIT - II

4. Briefly explain file and directory structure of LINUX.

OR

Write short notes on :

- (a) Repairing LINUX file system
- (b) Pathnames in LINUX

UNIT - III

5. Why do we use vi editor ? Describe various modes of vi editors. Write down command to perform the following :

- (a) undo all changes to the entire line
- (b) Terminate insert mode
- (c) Delete 3 lines
- (d) Delete 4 words
- (e) Change case of individual character
- (f) Overwrite characters from cursor onward
- (g) Replace character
- (h) Delete contents of line after the cursor
- (i) Change word
- (j) Write after cursor

OR

What are filter commands ? Discuss any five(5) filter commands of LINUX.

UNIT - IV

6. What is I/O Redirection ? Describe different I/O redirections with appropriate examples.

OR

Explain the following commands :

- (a) find
- (b) tee
- (c) tr
- (d) wc

UNIT - V

7. Write a shell scripts to print the following triangles :

- | | | | |
|-----|-------|-----|-----------|
| (a) | * | (b) | 1 |
| | ** | | 1 2 |
| | *** | | 1 2 3 |
| | **** | | 1 2 3 4 |
| | ***** | | 1 2 3 4 5 |

OR

Explain various conditional statements of shell programming with examples.

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