



QP CODE: 19101561

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Time: 3 Hours

BSC DEGREE (CBCS) EXAMINATION, MAY 2019

Fourth Semester

Core Course - CS4CRT10 - LINUX ADMINISTRATION

(Common for B.Sc Computer Applications Model III Triple Main,B.Sc Computer Science Model III,B.Sc Information Technology Model III,Bachelor of Computer Application)

2017 ADMISSION ONWARDS 07C60BA4

Maximum Marks: 80

Part A

Answer any ten questions.

Each question carries 2 marks.

- 1. How Linux differs from other operating system like MS Windows?
- 2. What is super block?
- 3. What is file command?
- 4. What is meant by background processing in Linux?
- 5. Which command is used to count the total number of words, lines and characters in a file?
- 6. What are the different modes of vi editor?
- 7. Give syntax of case statement.
- 8. Write commands to display first commandline argument and total number of commandline arguments in a shell script.
- 9. Define group add command in Linux.
- 10. Define the term superuser.
- 11. What is the difference between head and tail filters?.
- 12. What is samba?

 $(10 \times 2 = 20)$

Part B

Answer any six questions.

Each question carries 5 marks.

- 13. Explain Linux file system in detail
- Write short note on Linux standard directories.
- 15. What is Linux Redirection? Explain the different types of redirection with suitable examples.
- 16. List out the usages of find command in locating files and directories.



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- 17. Describe the use of conditional statement in shell scripts with suitable example.
- 18. Explain different types of variables in shell script.
- 19. Discuss how a system administrator can manage its user account.
- 20. What is DNS Server?
- 21. What is Telnet? What all are the advantages and disadvantages of using Telnet?

 $(6 \times 5 = 30)$

Part C

Answer any two questions.

Each question carries 15 marks.

- 22. Explain the following Linux concepts: (a) Connecting process using pipes. (b) Explain different mathematical commands.
- 23. What is a shell in Linux? Compare different shells available in Linux.
- 24. Explain the common administrative tasks in Linux
- 25. Write a note on Apache Server

(2×15=30)



B.C.A./B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, MARCH 2019

Sixth Semester

Choice Based Core Course—LINUX OPERATING SYSTEM
[Common for B.C.A. and B.Sc. Computer Application (Triple Main)]

(2013 Admission onwards)

Time: Three Hours

Maximum Marks: 80

Part A

Answer all questions.

Each question carries 1 mark.

- Which command is used to create file in Linux ?
- 2. Which command is used to list all the files in your current directory (including hidden)?
- 3. Write down the use of grep command?
- 4. Shared libraries are stored in which directory?
- 5. Shadow passwords for groups are stored in which configuration file?
- 6. Which log file contains boot messages about services as they start up?
- 7. How to print all array elements?
- 8. What is i-node?
- 9. What is the command to remove a duplicate job?
- 10. What is the command to count the number of characters in a file?

 $(10 \times 1 = 10)$

Part B

Answer any eight questions. Each question carries 2 marks.

- 11. What is the basic difference between UNIX and Linux Operating System?
- 12. In Linux everything stored as what?
- 13. What are the different types of commonly used shells on a typical Linux system?
- 14. What is the significance of \$#?
- 15. Differentiate between boot block and super block.
- 16. Differentiate between an array variable and a scalar variable in shell scripting.

Turn over

- 17. What is the difference between soft and hard links?
- 18. What is the difference between \$* and \$@?
- 19. What is Telnet?
- 20. What is the use of tail and head?
- 21. Differentiate between grep and egrep.
- 22. Why we avoid Telnet to administer a Linux system remotely?

 $(8 \times 2 = 16)$

Part C

Answer any six questions. Each question carries 4 marks.

- 23. Explain the file naming conventions in Linux.
- 24. Explain the following commands with at least two options:
 - (a) Cron (b) Chmod
- 25. Explain the procedure to get administrative access with sudo with suitable example. What are the functionalities provided by the sudoers facility?
- 26. Explain the procedure for installing and removing a package using rpm command.
- 27. What are the different types of variables used in Unix? Give explanation for any two special variables used in shell script.
- 28. Write a shell script to sort the given five integer numbers in ascending order using an array.
- 29. Explain the usage of expr and factor commands.
- 30. Write a shell script to reverse a given positive integer.
- 31. How can a file system be mounted? Explain.

 $(6 \times 4 = 24)$

Part D

Answer any two questions. Each question carries 15 marks.

- 32. With suitable examples, explain the conditional and controls structures in Shell scripting.
- 33. Briefly explain about user and group creation and its management.
- 34. (a) Compare and contrast about different shells available in Linux.
 - (b) Write a note on mathematical commands.
- e 35. Explain the basic architecture of Unix/Linux system. What are its advantages?

 $(2 \times 15 = 30)$

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B.C.A./B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, MARCH 2018

Sixth Semester

Choice Based Core Course—LINUX OPERATING SYSTEM

(Common for B.C.A. and B.Sc. Computer Applications [Triple Main])

(2013 Admission onwards)

Time: Three Hours

Maximum Marks: 80

Part A

Answer all questions.

Each question carries 1 mark.

- 1. What is the core of Linux Operating System?
- 2. What command do you use to create Linux file systems?
- 3. What is a shell?
- 4. Given a file, write a command sequence to find the count of each word.
- 5. Which command is used to get administrative privilege?
- 6. Shadow passwords for groups are stored in which configuration file.
- 7. What is in an RPM?
- 8. How to print last 5 characters of variable in shell script?
- 9. What is the command to determine the path of an executable file?
- 10. What is the purpose of FTP?

 $(10\times1=10)$

Part B

Answer any eight questions. Each question carries 2 marks.

- 11. How Linux differs from other operating systems like MS Windows?
- 12. How will you pass and access arguments to a script in Linux?
- 13. Given a file, replace all occurrence of word "ABC" with "DEF" from 5th line till end in only those lines that contains word "MNO".
- 14. Differentiate between boot block and super block.
- 15. What is the difference between static library and dynamic library?

Turn over

- 16. What is the purpose of \$HOME directory?
- 17. List different types of shells available in UNIX.
- 18. Explain about zombie processes.
- 19. What is the advantage in using command line argument in shell scripting?
- 20. Differentiate between grep and egrep.
- 21. Write short notes on DNS.
- 22. Write the purpose of cut and sort.

 $(8 \times 2 = 16)$

Part C

Answer any **six** questions. Each question carries 4 marks.

- 23. What do you mean by i-nodes? Explain.
- 24. Write a script to print the first 10 elements of Fibonacci series.
- 25. Give descriptions of any 4 directories that contain useful configuration files.
- 26. What are pipes in Linux? Explain.
- 27. Write a shell script for calculating the factorial of a given integer number.
- 28. Write short notes on samba.
- 29. Explain the process of temporary disabling of a user's account.
- 30. What is DHCP? Why it is used?
- 31. Write note on Telnet. Why we avoid Telnet to administer a Linux system remotely?

 $(6 \times 4 = 24)$

Part D

Answer any two questions. Each question carries 15 marks.

32. (a) With a diagram explain the basic architecture of Unix/Linux system.

(10 marks)

(b) Explain its basic features and advantages.

(5 marks)

33. (a) Explain the working of vi editor with its commands.

(8 marks)

(b) Describe about connecting processes with pipe.

(7 marks)

- 34. Briefly explain how the packages are installed and removed in Linux?
- 35. With suitable examples, explain the conditional and controls structures in Shell scripting.

 $[2 \times 15 = 30]$