

Name :

Roll No. :

Invigilator's Signature :

CS/BCA/SEM-5/BCA-502/2013-14

2013

UNIX AND SHELL PROGRAMMING

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

GROUP - A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for the following :

10 × 1 = 10

- i) The UNIX command 'a.out\&' runs the program a.out
 - a) with highest priority
 - b) when no other process is running on the system
 - c) in the background
 - d) none of these.
- ii) The cal command is used to
 - a) show calendar
 - b) use calculator
 - c) do calculations
 - d) none of these.
- iii) pwd command is used for
 - a) change password of administrator
 - b) change password of user
 - c) view the current working directory
 - d) all of these.

- iv) The command used to see the user processes is
- a) ps
 - b) process
 - c) ls
 - d) dir.
- v) The available disk space under UNIX can be determined by
- a) dir
 - b) df
 - c) cp
 - d) ls.
- vi) In UNIX mounting means
- a) copying all the files from one file system to another
 - b) moves all the files from one file system to another
 - c) loading a file system from backup medium like tape
 - d) providing a link to the file system to be mounted so that it appears as a subdirectory.
- vii) The hidden file in UNIX
- a) has special status bit associated with the file descriptor
 - b) has names starting with dot
 - c) can be accessed only by the operating system
 - d) none of these.
- viii) The chmod command in UNIX
- a) changes the current execution status from user mode to kernel mode
 - b) makes a file hidden
 - c) changes the access permission of a file or directory
 - d) none of these.

- ix) Chown command in UNIX changes
- a) file permission
 - b) ownership of a file
 - c) priority of a process
 - d) none of these.
- x) Basename student. lst lst-the output of this command is
- a) student
 - b) student.
 - c) lst
 - d) .lst

GROUP - B

(Short Answer Type Questions)

Answer any *three* of the following. $3 \times 5 = 15$

2. What do you mean by Internal and External commands ?
3. What are the different run levels in UNIX ?
4. What is the utility of ls and ls-a command ?
5. What is *t*-node ? Explain different attributes of *t*-node.
6. How will you replace "You" with "us" in vi editor ?

GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following. $3 \times 15 = 45$

7. a) Write the command you will give to set read, write and execute permissions, group member read and execute permission and others only read permission for a file named zyx.txt. 5
- b) State the importance of PID and PPID. Which process has the maximum number of child processes ? 5
- c) Write a shell script to print all the odd numbers from 1 to 15. 5

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8. a) Briefly explain the features of UNIX operating system. 5
b) Briefly state with syntax and example the following loops : while, until, for. 5
c) What do you understand by root directory ? 3
d) What is the importance of home directory ? 2
9. a) What is a process ? 2
b) Explain briefly foreground and background job execution in UNIX system. 3
c) Explain with examples egrep and fgrep. 5
d) Write briefly on the following commands :
mount, umask, fsck, kill. 5
10. a) How can you use 'cat' command to create a new file in UNIX ? Explain with example. 3
b) Write a shell script to check whether a file is readable, writeable or executable. 6
c) Explain the shutdown command with at least two options. 4
d) Can ordinary user invoke shutdown command ? Explain the significance of run level 0, 1, 6. 2
11. Write short notes on any *five* of the following : 5 × 3
a) Cal
b) Touch
c) Basename
d) UNIX external and internal commands
e) Who
f) Mailx.
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