Name :	
Roll No. :	An Alaman Of Exercising and Excellent
Invigilator's Signature :	

CS/BCA/SEM-5/BCA-502/2012-13

2012

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 : $10 \times 1 = 10$

i) To counting number of lines in a file which command is used

a) cat	b)	ls
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c) wc d) chmod.

ii) In the core of the operating system is called

- a) hardware b) kernel
- c) shell d) X-window.

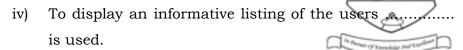
iii) Which one works as interface between the user & the kernel ?

- a) Hardware b) Kernel
- c) Shell d) X-window.

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- a) who b) ls
- c) both (a) and (b) d) none of these.
- v) To remove a directory command is used.
 - a) rmdir b) mkdir
 - c) tree d) none of these.
- vi) To know your current directory we use
 - a) cd b) chmod
 - c) both (a) and (b) d) pwd.
- vii) The UNIX command 'cp ch * book'
 - a) copies all files starting with ch to the directory book
 - b) copies all files with three character names and starting with ch to the directory book
 - c) compares whether file starting with ch exists in directory book
 - d) none of these.
- viii) Suppose the current directory is / home / user / xyz / prog. A possible command to change to a directory / home / user / abc / letter is
 - a) cd .. / .. / *abc* / letter
 - b) cd ./ ./ *abc* / letter
 - c) cd ./ home / user / abc / letter
 - d) none of these.

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ix) The UNIX command 'rm -r project' will

- a) delete the file project from the current directory
- b) delete all the files from the directory project
- c) recursively delete the directory project and all its sub-directories
- d) none of these.
- x) The hidden file in UNIX
 - a) have a special status bit associated with the file descriptor
 - b) have names starting with a dot
 - c) can be accessed only by the operating system kernel
 - d) none of these.

GROUP – B

(Short Answer Type Questions)

Answer any <i>three</i> of the following	$3 \times 5 = 15$
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- 2. How do you change File Access Permissions in Unix ?
- 3. What is i-node ? Explain fields of an i-node. 2+3
- 4. Discuss mount and unmount system calls.
- 5. What happens when you execute a program ? Define zombie.

3 + 2

6. Define hard link and soft link.

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GROUP – C

(Long Answer Type Questions

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

- 7. Describe mechanism of process creation. How a shell is created ? What are internal and external commands ? Where are the security levels available in UNIX ? 5 + 3 + 4 + 3
- Define kill command. How you can kill the last background job ? How you can execute a low priority job before a high priority job ? What are the different environment variables in Unix ? Explain ps command.
 2 + 3 + 3 + 3 + 4
- 9. What are piping operators ? What is redirection ? Describe different redirection operators. Write a shell script to find out prime numbers within 100 to 500.
 2 + 2 + 3 + 8
- 10. a) What is quoting ? What are three quote tokens ?
 - b) What is regular expression ? List out the components of it.
 - c) What are egrep and fgrep ? Give examples.
 - d) Differentiate between line editor and screen editor.

(2+2)+4+4+3

- 11. Write short notes on any *three* of the following : 3×5
 - a) gzip and gunzip
 - b) awk
 - c) tar
 - d) Common shells in Unix.

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