



Name :
Roll No. :
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
 - 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.



- 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 *three* of the following $3 \times 5 = 15$

- 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.



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 ? $5 + 3 + 4 + 3$
8. 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.

=====