

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI –600 086  
(For candidates admitted from the academic year 2010 – 11)

SUBJECT CODE: BI/PE/LX23

M. Sc. DEGREE EXAMINATION, APRIL 2011  
BIOINFORMATICS  
SECOND SEMESTER

COURSE : ELECTIVE

PAPER : INTRODUCTION TO OPERATING SYSTEM: LINUX

TIME : 3 HOURS

MAX.MARKS: 60

SECTION - A

Answer all the questions:

I Fill in the blanks

(15 x 1 = 15)

1. GUI stands for \_\_\_\_\_.
2. \$who>user.lst  
What command is used to display the content of the file user.lst? \_\_\_\_\_
3. \_\_\_\_\_ Command is used to count the number of users.
4. Write the command to list all files with .lst extension \_\_\_\_\_
5. ls -l chap chap01 chap02 chap03 chap04 chapx chapz  
Write the pattern consisting of string chap, along with special characters. \_\_\_\_\_
6. The \_\_\_\_\_ variable holds the exit status of a command.
7. \_\_\_\_\_ Symbol is used to append the output of echo command to a file. If file does not already exist, it is created.
8. The \_\_\_\_\_ construct expands and evaluates an arithmetic expression
9. \_\_\_\_\_ is an Open Source graphical desktop environment for UNIX workstations.
10. \_\_\_\_\_ Command is used to display the number of files in the current directory.
11. The \_\_\_\_\_ option of the cut command is used to specify a field separator.
12. To accept a value from the user, \_\_\_\_\_ command is used in shell scripts.
13. Linux was first developed by \_\_\_\_\_
14. To increase the value of variable ctr by 1 , the command is \_\_\_\_\_.
15. \_\_\_\_\_ is a text editor, which is used to do shell programming.

II Choose the best answer

(15 x 1 = 15)

16. When creating a file with cat, you can terminate input by pressing \_\_\_\_\_  
a) <Ctrl-s> b) <ctrl-q> c) <ctrl-d> d) none of these
17. \_\_\_\_\_ creates two sub-directories, say 'abc' and 'pqr' , under the root directory.  
a) mkdir abc pqr b) mk abc pqr c) dir abc pqr d) Both a & b

18. \_\_\_\_\_ combines the contents of file 't1' and 't2' into another file 't1t2'  
 a) cat t1 t2 t3      b) cat t1 t2>t1t2      c) cat>t1t2      d) cat>t1 t2
19. What command is used to sort the lines of data in a file in alphabetical order? \_\_\_\_\_  
 a) sort -r      b) st      c) sh      d) sort
20. What command is used with vi editor to save file and remain in the editing mode?  
 a) X      b) q!      c) :w      d) :q
21. \_\_\_\_\_ shell's wild-card is used to match any number of characters including none?  
 a) \*      b) ?      c) [!ijk]      d) [ijk]
22. \_\_\_\_\_ displays the current working directory?  
 a) path      b) pwd      c) dir      d) shell
23. \_\_\_\_\_ changes the ownership of one or more files to newowner  
 a) chmod      b) chgrp      c) chown      d) none of the above
24. The \_\_\_\_\_ command is to dump data on a disk.  
 a) dd      b) mformat      c) fdformat      d) mkbootdisk
25. The file transfers with \_\_\_\_\_ is used frequently for updating files across a network  
 a) Rsh      b) Encryption      c) rsync      d) rshd
26. A variable that one can name and assign a value to is called a \_\_\_\_\_ variable.  
 a) Positional parameter      b) Shell variable      c) static variable      d) both a & b
27. In Linux, to echo a string and keep the cursor on the same line, use \_\_\_\_\_  
 a) -e option      b) the escape sequence \c      c) both a & b      d) none of these
28. The top-most directory in every file system which has no parent, is indicated by /  
 a) root      b) sub- directory      c) parent-child      d) leaf
29. What does kill \$! do?  
 a) Kills processes spawned by user      b) kills all background processes  
 b) kills the most recent background process      d) kills the oldest background process
30. \_\_\_\_\_ is the creator of a file having complete authority of determining its contents and permissions  
 a) Owner      b) user      c) group      d) both a & b

### III Say true or false

(5 x 1 = 5)

31. "who am i" shows the user information.
32. A UNIX variable does not require \$ for evaluation.
33. ls -l command, changes the access time of the file.
34. Filter command uses standard input and standard output.
35. A special character used by the shell to match a group of filenames with single expression is wild card.

**IV Match the following****(5 x 1 = 5)**

- |                    |   |    |                  |
|--------------------|---|----|------------------|
| 36. chmod          | - | a) | &                |
| 37. Background job | - | b) | file permissions |
| 38. Home           | - | c) | regular file     |
| 39. Ordinary file  | - | d) | symbol           |
| 40. Std i/p & o/p  | - | e) | login            |

**SECTION - B****Answer any two of the following****(2 x 10 = 20)**

41. a) Discuss on Linux GUI, Properties of Linux  
 b) Explain the Linux file system
42. a) What are the wildcards used for filename matching?  
 b) Write a short note on I/O redirection
43. Briefly explain fundamental backup techniques.
44. Write the output and correct the errors in the following program:

```
a) echo "enter file name /c"
   read file
```

```
lines='cat file | wc'
```

```
if [ $lines < 10 ]
  echo '$file is a small file '
fi
if [ lines < 20 ]
then
  echo '$file is a big file'
else
  echo '$file is a very big file'
```

```
b) echo "enter department /c "
   read $dept
```

```
if [$dept eq mktg && $dept eq admn && $dept eq finance ]
  echo "Valid dept"
else
  echo '$dept is not valid dept'
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