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## BCACAC 312

# Credit Based Fifth Semester B.C.A. Degree Examination, Oct./Nov. 2014 (New Syllabus 2014-15 Batch) LINUX ENVIRONMENT

Time: 3 Hours Max. Marks: 100

Note: Answer any ten questions from Part A and answer any one full question from each Unit in Part B.

#### PART-A

1. a) What are the companies involved in developing multics?

 $(10 \times 2 = 20)$ 

- b) What is the use of following system call?
  - i) brk()
  - ii) signal()
- c) What is super block? List any 4 components of super block.
- d) Write the purpose of following algorithm
  - i) bmap
  - ii) alloc
- e) List the conditions of buffer status field.
- f) What are the three stages of device configuration?
- g) Explain 1 seek system call.
- h) Expand the term KDE and GNOME.
- i) Define kernel. List the activities of LINUX kernel.
- i) Name any two web browsers in LINUX.
- k) Write the functions of LINUX package manager.
- I) Define the term ISP. Write the use of ISP.



#### PART-B

#### UNIT-I

- 2. a) Explain block read ahead algorithm (breada).
  - b) Discuss UNIX file system with diagram.
  - c) List the features of UNIX file system.
  - d) Explain with figure the table of contents field of an inode.

(8+4+4+4)

- a) Explain the various services of UNIX operating system.
  - b) Explain the Kernel architecture of the UNIX system with neat diagram.
  - c) Explain the structure of Buffer Pool.

(6+8+6)

#### UNIT-II

- 4. a) With syntax explain following System Call
  - i) Write
  - ii) Mknod
  - iii) Mount
  - iv) Creat ·
  - v) Pipe
  - b) List the functions of line discipline.
  - c) Explain the properties of System V IPC package.

(10+4+6)

- 5. a) Write a note on Disk Driver.
  - b) Explain sockets model with diagram.
  - c) Explain Read and Link System call.
  - d) Explain system configuration with diagram.

(4+6+4+6)

### UNIT - III

- a) List and explain the features of GNOME desktop.
  - b) Give the difference between RPM based distributions and Deb based distributions with example.
  - c) Explain in brief the K desktop environment.

(8+6+6)

- 7. a) Write a note on components of LINUX window.
  - b) How can we create files and folders in LINUX?
  - c) Explain the features of LINUX.

(8+6+6)

## UNIT-IV

- 8. a) How can we write the contents to CD/DVD in LINUX?
  - b) Explain the services provided by the internet.
  - c) Write a note on Ubuntu software center tool.

(8+6+6)

- 9. a) How can we differentiate a web and website? Explain with example.
  - b) Differentiate P2P networking and client/server networking with a diagram.
  - c) Write the uses of the following internet applications in LINUX
    - i) Chromium
    - ii) Ekiga
    - iii) Elinks
    - iv) Filezilla

(8+6+6)