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**BCACAC 312**

**Credit Based Fifth Semester B.C.A. Degree Examination, Nov./Dec. 2015  
(New Syllabus) (2014-15 Batch Onwards)  
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 is a path name ? Define absolute path name and relative path name. (10×2=20)
  - b) Give the difference between boot block and super block.
  - c) Give the differences between .and..
  - d) What is the importance of buffer cache in kernel architecture ?
  - e) Give the syntax of unmount and unlink system call.
  - f) Define a stream.
  - g) Define the term 'line discipline' in terminal driver.
  - h) Expand the term KDE and GNOME.
  - i) What is Gedit ?
  - j) What is GParted ?
  - k) What is the use of back up files ?
  - l) Define LAN, WAN.

**PART – B**

**Unit – I**

2. a) Name any five services of operating system. (6+8+6)
  - b) Explain the kernel architecture of UNIX system with a neat diagram.
  - c) Write a note on the structure of the buffer pool.
3. a) Give the structure of the disk inode. (6+8+6)
  - b) Give the structure of a regular file with direct and indirect block.
  - c) Write a note on reading and writing disk blocks.

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### Unit – II

4. a) Define and explain the function of open system call. (7+6+7)  
b) What is the importance of lseek system call ? Explain with syntax.  
c) Write the function of pipe system call.
5. a) Write a note on disk driver. (4+6+4+6)  
b) Write a note on streams.  
c) Explain socket model with diagram.  
d) Write a note on link system call.

### Unit – III

6. a) Define and explain the features of LINUX. (10+4+6)  
b) Give the difference between RPM based distributions and Deb based distributions with example.  
c) Write a note on components of LINUX window.
7. a) Explain the brief K desktop environment. (8+6+6)  
b) Write a note on LINUX files and folders.  
c) Give the structure of LINUX file system. Explain with example.

### Unit - IV

8. a) Write a note on powers of an administrator in LINUX OS. (6+6+8)  
b) Write a note on Ubuntu software center tool.  
c) Explain the services provided by the internet.
9. a) How can we configure computer network in LINUX ? Explain with example.  
b) How can we differentiate a web and website ? Explain with example.