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**BCACAC 312**

**Credit Based Fifth Semester B.C.A. Degree Examination, April 2021  
(Semester Scheme) (Common to all Batches)  
LINUX ENVIRONMENT**

Time : 3 Hours

Max. Marks : 100

**Instruction :** Answer **any ten** questions from Part – A and **one full** question from each Unit of Part – B.

PART – A

(10×2=20)

1. a) What are the companies involved in developing multics ?
- b) What are the purposes of special files ?
- c) Differentiate user mode and kernel mode.
- d) Define pipe. Name its types.
- e) Define socket.
- f) Mention any two mechanisms of system V IPC.
- g) Define the term KDE and GNOME.
- h) What is G-Edit ?
- i) Define Kernel. List the activities of Linux kernel.
- j) What is live USB ?
- k) Define the term ISP. Write the use of ISP.
- l) Write the functions of LINUX package manager.

P.T.O.



## PART – B

## UNIT – I

2. a) Explain the high level architecture of Unix system with a neat diagram.  
b) Explain the various fields of a disk i-node.  
c) Write and explain bread algorithm. **(7+8+5)**
3. a) List out the contents of a super block.  
b) Explain various services of Unix Operating System.  
c) Write the structure of a regular file with direct and indirect block. **(6+6+8)**

## UNIT – II

4. a) With syntax explain the following system calls :  
i) create  
ii) write  
iii) link  
iv) close  
v) mount.  
b) Explain the functions of line discipline.  
c) Write a note on network communications. **(10+6+4)**
5. a) Explain :  
i) Streams  
ii) Process tracing.  
b) Explain socket model with a diagram.  
c) Write a note on system configuration. **(8+6+6)**

## UNIT – III

6. a) Give the difference between RPM based distributions and Deb based distributions with example.  
b) Define and explain the features of Linux.  
c) Write a note on components of Linux Window. **(6+8+6)**



7. a) Explain in brief K desktop environment.
- b) Explain :
- i) managing files
  - ii) folders in Linux.
- c) Write a note on Linux opportunities. (8+6+6)

UNIT – IV

8. a) Write a note on powers of an administrator in Linux OS.
- b) Write a note on Ubuntu Software Center tool.
- c) Explain the services provided by the Internet. (6+6+8)
9. a) Write the uses of the following Internet applications in Linux :
- i) Bluefish
  - ii) Check Gmail
  - iii) Chromium
  - iv) Evolution
  - v) Elinks
  - vi) Filezilla.
- b) Differentiate web and website with example.
- c) Differentiate P2P networking and client/server networking with a diagram. (6+8+6)
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