Reg. No.

BCACAC 312

V Semester B.C.A. Degree Examination, October/November 2019

(Credit Based Semester Scheme)

(Common to All Batches)

Linux Environment

Time : 3 Hours]

[Max. Marks : 100

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

PART – A

1. Answer **any ten** of the following :

(10 × 2 = 20)

   (a)   List any two characteristics of Unix File system.

   (b)   What is pathname? Define full pathname and relative pathname.

   (c)   Write a note on special files.

   (d)   What is the function of device driver and terminal driver?

   (e)   Define a stream.

   (f)   Define a socket.

   (g)   Expand GNOME and KDE.

   (h)   What is Gedit?

   (i)   What is X Window System?

   (j)   Define LAN and WAN.

   (k)   What is Live USB?

   (l)   Define Dolphin and Nautilus.

1

P.T.O.

PART – B

UNIT – I

2. (a) Explain the services of Operating System.

   (b) List the fields of superblock.

   (c) Explain the kernel architecture of Unix system with a neat diagram. **(6 + 6 + 8)**

3. (a) With the help of diagram, explain the structure of regular file.

   (b) Explain the various fields of disk inode.

   (c) Explain the buffer header with a neat diagram. **(6 + 7 + 7)**

UNIT – II

4. (a) Explain the functions of line discipline.

   (b) Write a note on network communications.

   (c) Explain with syntax the following system calls:

   (i) create   (ii) write   (iii) link   (iv) close   (v) mount

   (6 + 4 + 10)

5. (a) Write a note on system configuration.

   (b) Explain sockets model with diagram.

   (c) Explain with syntax the following system calls:

   (i) open   (ii) read   (iii) lseek   (iv) pipe   **(6 + 6 + 8)**

UNIT – III

6. (a) Explain Linux system file structure.

   (b) Describe the RPM and Deb based distribution.

   (c) Explain in brief the K Desktop Environment. **(6 + 6 + 8)**

7. (a) Explain the components of GNOME Desktop Startup screen.

   (b) Explain the features of Linux.

   (c) Write a note on Linux files and folders. **(6 + 8 + 6)**

UNIT – IV

8. (a) Differentiate P2P networking and client server networking with a diagram.

   (b) Write a note on the powers of an administrator in Linux OS?

   (c) How can we configure computer networks in Linux? Explain with example. **(7 + 7 + 6)**

9. (a) Write a note on the following:

   (i) Writing the contents to CD/DVD in Linux

   (ii) Installing Linux package.

   (b) Explain the services provided by the internet.

   (c) Write a note on Ubuntu software center tool. **(8 + 6 + 6)**

   —————