RAJ-003-00340100 Seat No. _____

B. C. A. (Sem. IV) (CBCS) (W.I.F. 2016) Examination

March / April - 2019

CS - 22 : Operating System Concepts with Unix/Linux

Faculty Code : 003

Subject Code : 00340100

Time : $2\frac{1}{2}$ Hours] [Total Marks : **70**

1 (a) Attempt following questions : **4**

   (1) Round Robin is _____ scheduling algorithm.

   (2) When Process needs input/output then it will move in _____ state.

   (3) How many entries per page are there in the PMT ?

   (4) Which type of OS is generally used to operate particular device ?

   (b) Attempt any **one** question : **2**

   (1) What is O.S ? List out its features.

   (2) Explain concept of Memory Fragmentation.

   (c) Attempt any **one** question : **3**

   (1) Explain process state transition diagram.

   (2) Time sharing O.S. with example.

   (d) Attempt any **one** question : **5**

   (1) Write a note on virtual memory and its types.

   (2) Write a note on priority based scheduling techniques.

2   (a)   Attempt following questions :   4

           (1)   The hidden files can be listed out with _____ command.

           (2)   _____ redirection operator is used to append content to a file.

           (3)   Which is the default directory to store device files in UNIX ?

           (4)   By default, Kill command uses ____ numbered signal to stop process.

   (b)   Attempt any **one** question :   2

           (1)   Types of files in UNIX.

           (2)   File comparison commands.

   (c)   Attempt any **one** question :   3

           (1)   Explain concept of Mounting and demounting file system in UNIX.

           (2)   Various modes in VI editor.

   (d)   Attempt any **one** question :   5

           (1)   Draw and explain UNIX Architecture.

           (2)   Explain following commands

                  (1)   Step

                  (2)   Cut

                  (3)   ls

                  (4)   umask

                  (5)   Script

3   (a)   Attempt following questions :   4

           (1)   Full form of GRUB.

           (2)   Full form of MBR.

           (3)   _____ command is used to delete variable from shell script.

           (4)   echo $0 returns _____.

(b) Attempt any **one** question :   2

    (1) Explain concept of Positional parameters.

    (2) Define : Freeware

(c) Attempt any **one** question :   3

    (1) File structure of Linux.

    (2) Write note on system variables of UNIX.

(d) Attempt any **one** question :   5

    (1) Note on Linux Boot Loaders.

    (2) Write a shell script to check whether a number is prime or not.

4 (a) Attempt following questions :   4

    (1) Write syntax to install a package in linux.

    (2) Full form of GNOME.

    (3) Write syntax to add a user to particular group.

    (4) Use of startx command.

(b) Attempt any **one** question :   2

    (1) What is the purpose of window manager ?

    (2) What are the basic window management functionalities ?

(c) Attempt any **one** question :   3

    (1) Configuring X-window.

    (2) Write commands to create, delete. copy and list files and folders.

(d) Attempt any **one** question :   5

    (1) Explain layered structure of X window system.

    (2) Write a note on KDE and GNOME desktop environments.

5 (a) Attempt following questions :   4

      (1) The UFW is an acronym for _____.

      (2) Which package is used to install FTP server on ubuntu ?

      (3) WINE stands for _____.

      (4) What is the meaning of Sudo ?

   (b) Attempt any **one** question :   2

      (1) Types of users in Ubuntu.

      (2) Optimizing LDAP services.

   (c) Attempt any **one** question :   3

      (1) Installing and configuring WINE.

      (2) How to work with a pache server in linux ?

   (d) Attempt any **one** question :   5

      (1) Write a note on working with SAMBA server.

      (2) Optimizing and working with FTP services.