S.D.E.

M.C.A. Sem - IV : SUMMER - 2019

SUJBECT: UNIX AND LINUX INTERNALS

Day: Tuesday
Date: 14/05/2019

S-2019-5266

Time: 02.00 PM TO 05.00 PM
Max. Marks: 80

N.B.:

1) Answer any **FIVE** questions from Section-I and any **TWO** questions from Section-II.
2) Both the sections should be written in the **SAME** answer book.
3) Figures to the **RIGHT** indicate full marks.

SECTION-I

Q.1 Define Operating System. Explain different services provided by operating system. **(10)**

Q.2 Explain the concept of buffer cache in detail. List advantages and disadvantages of using buffer cache. **(10)**

Q.3 Differentiate between the following: **(10)**
i) System calls Vs C- library functions
ii) Disk Drivers Vs Terminal Drivers

Q.4 Explain memory management policies used in UNIX/ LINUX operating system. **(10)**

Q.5 What are different types of files in UNIX? How they are represented in memory. **(10)**

Q.6 What is Inter Process Communication? How socket system calls are used to achieve Inter Process Communication? **(10)**

Q.7 Write short notes on Any **TWO** of following: **(10)**

a) Demand paging
b) 'in it' process
c) Terminal drivers

SECTION-II

Q.8 Explain the following commands with suitable example: **(15)**
i) cat ii) mailx
iii) uname iv) passwd v) who

Q.9 Write the commands with example for following functionalities to handle file system: **(15)**
i) Change the directory
ii) Check your current directory
iii) Make directory
iv) List the directory contents
v) Search a file for a given pattern

Q.10 Write a C program to accept N integer elements in an array and apply the following operations on data: **(15)**
i) Sort the data in ascending order
ii) Search a number and print the position of number in array.

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