Subject : Unix and Linux Internals

Day : Thursday   **S.D.E.** ‖‖‖‖‖‖‖‖‖   Time : 02.00 P.M. TO 05.00 P.M.

Date : 08/12/2016   **33530**   Max Marks : 80   Total Pages : 1

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 Describe briefly the UNIX operating system architecture. Explain the role **(10)** played by kernel and shell.

Q.2 How files are represented in UNIX operating system? **(10)**

Q.3 Differentiate between the following: **(10)**
i) System calls Vs C- library functions
ii) 'Fork' Vs 'Exec' system call

Q.4 What is a process? Explain context of a process and when it is saved in **(10)** memory.

Q.5 What is the purpose of I/O sub system driver interfaces? Explain Disc Drivers. **(10)**

Q.6 Explain the role of swapping as a memory management policy. **(10)**

Q.7 Write short notes on Any **TWO** of the following: **(10)**
a) Kernel Data Structure
b) Reserved ports
c) System boot process

SECTION-II

Q.8 a) Write a shell script to print first N prime numbers. **(08)**

b) Write a shell script to convert the content of a file to uppercase. **(07)**

Q.9 Write a C program to implement socket and demonstrate the concept of Inter **(15)** Process Communication?

Q.10 Explain different commands used for process creation, termination and process **(15)** control.

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