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[4757]-1074

S.E. (Computer Engg.) (First Semester) EXAMINATION, 2015

OPERATING SYSTEM AND ADMINISTRATION

(2012 PATTERN)

Time : Two Hours

Maximum Marks : 50

N.B. :— (i) Attempt Q. No. 1 or Q. No. 2, Q. No. 3 or Q. No. 4,
Q. No. 5 or Q. No. 6, Q. No. 7 or Q. No. 8.

(ii) Neat diagrams must be drawn wherever necessary.

(iii) Figures to the right indicate full marks.

(iv) Assume suitable data, if necessary.

1. (a) Draw and explain high level architecture of unix systems. [6]
- (b) Write a short note on interrupts and exceptions. [4]
- (c) Explain batch processing and multiprogramming. [2]

Or

2. (a) Explain 4 state process diagram. [6]
- (b) What do you mean by user and hardware perspective of operating system ? [4]
- (c) List any two functions of an OS. [2]

P.T.O.

3. (a) Explain organization of the file hierarchy tree. [6]
(b) Explain types of files in unix. [3]
(c) Explain input, output and error redirection. [3]

Or

4. (a) Explain the entire process of booting (system turn on to login prompt). [6]
(b) Differentiate between grub and LILO. [4]
(c) Define a shell. [2]
5. (a) Which *two* signals can never be ignored ? [2]
(b) Explain signal and kill function with parameters. [4]
(c) What are real effective and save ids. [3]
(d) Differentiate between nice and renice (with examples). [4]

Or

6. (a) Differentiate between user mode and kernel mode instructions. [4]
(b) How does a user level process change to kernel mode ? Explain. [2]
(c) Explain how kill function can be used to send signal to a group of processes also give the syntax of kill function. [4]
(d) What is the shadow password file ? Where does user password reside in unix. [3]

7. (a) Write a short note on RAID and its levels. [6]
(b) Explain the process of mounting and unmounting a pendrive. [4]
(c) Explain the fields in /etc/group file. [3]

Or

8. (a) What is meant by disk partitioning and disk formatting. [4]
(b) What is the native file of Linux and Unix. Differentiate between Unix and Linux. [4]
(c) What are the startup files ? What are its tasks ? [3]
(d) How to set the password for user account in linux/unix. [2]