Nov 2015

Total No. of Questions—8]

Seat
No.

[4857]-1074

S.E. (Computer Engineering) (First Sem.) 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 and 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) Explain the characteristics of Unix file system as well as Processing
       Environment.   [6]

   (b) State difference between system call, libraries and header
       file.   [6]

Or

2. (a) What is bootstrapping ? Explain boot process steps in
       detail.   [6]

   (b) Explain all the steps involved in adding a new user without
       using adduser command.   [6]

P.T.O.

3. (a) What is an i-node in UNIX file system ? Explain i-node structure
       of a file including :   [6]

       (i)   Direct Block Pointers

       (ii) Indirect Block Pointers

       (iii) Double Indirect Block Pointers

       (iv) Triple Indirect Block Pointers.

   (b) What is process ? Explain process transition diagram.
       State different reason of process swap out while in running
       state.   [6]

Or

4. (a) Explain the term context switch with respect to Kernel process
       is non-preemptive.   [6]

   (b) Write short notes on :   [6]

       (i)   Bash Scripting

       (ii) Perl Scripting

       (iii) Python Scripting.

5. (a) Explain final outcome of the commands given below (use suitable
       example) :   [6]

       (i)   umask a-x

       (ii) ps -elf|grep chrome>abc.txt

       (iii) fdisk-1

   (b) Explain Modern access control Vs. Real word access
       control.   [7]

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Or

6. (a) Explain the analogies related to process given below : [6]
    (i) Orphan
    (ii) Zombie
    (iii) Daemon.

   (b) What is Sticky a Bit ? Explain importance of a sticky bit using appropriate symbolic example. How to check if a folder is set with Sticky Bit or not ? [7]

7. Answer the following :
    (i) State difference between SATA and PATA. [4]
    (ii) With neatly labelled diagram explain RAID. [5]
    (iii) Write a short note on Crontab scheduling. [4]

Or

8. Answer the following :
    (i) Explain all the attributes of /etc/group file. [4]
    (ii) Compare and contrast the Ext2, Ext3, Ext4 family. [5]
    (iii) What are different partitions in UNIX ? Explain. [4]

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