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B.E. / B.TECH. (Full Time) DEGREE END SEMESTER EXAMINATIONS,
APR./MAY 2013

INFORMATION TECHNOLOGY
FIFTH SEMESTER
CS9023 – UNIX INTERNALS
(REGULATION 2008)

Time: 3 Hrs

Max Marks: 100

Answer ALL Question

Part – A

(10 x 2 = 20 Marks)

1. What is the advantage of buffer cache?
2. Define the system structure.
3. What are the drawbacks of getblk ().
4. State the fields of super block.
5. Define lseek command.
6. What is the function of mknod ().
7. Define the command used for changing the size of the process.
8. State the used id of a process.
9. Define terminal polling.
10. What are the functions of line discipline?

Part – B

(5 x 16 = 80 Marks)

11. a) Explain the structure of the buffer pool? State and explain the various scenarios for retrieval of a buffer.
 12. a)
 - i. Distinguish between incore inode and disk inode. Illustrate with examples? (8)
 - ii. State and explain the algorithm for getting an a existing inode with example (8)
- OR
- b) Explain the process of allocating an inode for a file and release of inode with example.
 13. a)
 - i. What are the different commands used for file and record locking. Explain with example. (8)
 - ii. Explain the open system calls with example. Give the data structures after the open command is executed. (8)

OR

- b) What are the different kinds of pipes? Explain the process of reading and writing a named pipe with example.

14.

- a) State and explain the function of mount system calls. Explain the process of crossing from the mounted-on file systems to mounted file system.

OR

- b) Explain the process scheduling and fair share scheduler in detail with a suitable example.

15.

- a) State and explain the data structures in demand paging? Explain the fork and the exec in the paging system with suitable example

OR

- b) What is the different system calls used for Messages? Explain it with example.