

Reg. No. :

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Question Paper Code : 21282

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2013.

Sixth Semester

Computer Science and Engineering

CS 2028/CS 605/CS 1005/10144 CSE 22 — UNIX INTERNALS

(Regulation 2008/2010)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are the services provided by kernel?
2. Write short notes on u-area.
3. List out any two advantages of buffer cache.
4. Define inode.
5. What is the syntax used for changing owner or mode of a file?
6. Write a program illustrating DUP syntax call.
7. What is the use of signals?
8. Write a brief note on init process.
9. How is the process priority controlled?
10. What are the different states that causes page fault?

PART B — (5 × 16 = 80 marks)

11. (a) (i) Explain the architecture of UNIX system with a neat diagram. (10)
- (ii) Explain the features of UNIX system briefly. (6)

Or

- (b) Write short notes on :
- (i) Kernel data structures (4)
 - (ii) System administration (6)
 - (iii) Operating system services. (6)

12. (a) Explain the following :
- (i) Conversion of a path name to an inode (8)
 - (ii) Inode assignment a new file. (8)

Or

- (b) Discuss on :
- (i) Allocation of disk blocks (8)
 - (ii) Reading and writing disk blocks. (8)
13. (a) Explain mounting and unmounting a file system with the algorithms. (16)

Or

- (b) Explain the use of pipes with an example. (16)
14. (a) Explain the components and saving of the context of a process. (16)

Or

- (b) Describe the region data structures and the operations on region. (16)
15. (a) Explain the function of terminal driver both in canonical and raw modes. (16)

Or

- (b) What are the two types of page fault? Explain. (16)
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