LIB
21/12/13 FN

Reg. No. : | | | | | | | | | | | | |

Question Paper Code : 31282

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2013.

Sixth/Seventh Semester

Computer Science and Engineering

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

(Common to Information Technology)

(Regulation 2008/2010)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is Kernel?
2. What is meant by "sleep on an event"?
3. Distinguish between disk inode and incore inode.
4. What is the disadvantages of buffer cache?
5. What are special files in unix?
6. What is fstat?
7. Define context of a process.
8. What is zombie?
9. What is map?
10. What is clist?

PART B — (5 × 16 = 80 marks)

11. (a) (i) List out the salient features of the UNIX Operating System. (7)

(ii) Explain the architecture of UNIX. (9)

Or

(b) Explain the various kernel data structures of UNIX in detail.

12. (a) (i) Explain about buffer pool. (7)

(ii) Explain the buffer allocation algorithm in detail. (9)

Or

(b) (i) What is meant by a super block. Explain. (8)

(ii) Explain about disk block allocation. (8)

13. (a) Explain about pipes and special files in detail.

Or

(b) Explain about linking and unlinking a file system.

14. (a) (i) Explain about process states and transitions in detail. (8)

(ii) Discuss about system boot and the INIT process. (8)

Or

(b) Explain about growreg and loadreg algorithms in detail.

15. (a) Explain about swapping in detail.

Or

(b) Discuss in detail the various memory management policies.