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Question Paper Code : P 1206

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2009.

Fourth Semester

(Regulation 2004)

Computer Science and Engineering

CS 1252 — OPERATING SYSTEMS

(Common to Fifth Semester Information Technology)

(Common to B.E. (Part-Time) Third Semester Computer Science and Engineering
Regulation 2005)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is the difference between OS for mainframe and desktop systems?
2. Differentiate long term scheduler from short term scheduler.
3. Define critical region.
4. What is meant by monitors?
5. What is a safe state? Give the use of safe state in deadlock avoidance.
6. Why is paging used?
7. What is meant by demand paging?
8. Define thrashing.
9. What is the importance of shells in Linux?
10. Differentiate worms from virus.

PART B — (5 × 16 = 80 marks)

11. (a) Describe in detail the activities involved in sharing of information between two processes. (16)

Or

- (b) Write short notes on : (10 + 6)
- (i) Virtual machines
 - (ii) Hardware protection

12. (a) Discuss how the dining philosopher's problem can be solved by monitors. (16)

Or

- (b) Explain the various process scheduling algorithms with example. (16)

13. (a) Discuss how deadlocks can be avoided and detected. (16)

Or

- (b) Describe segmentation. (16)

14. (a) Explain the various page replacement algorithms with example. (16)

Or

- (b) Why is file protection necessary? Explain the techniques used for file protection. (16)

15. (a) Discuss the file system in Linux. (16)

Or

- (b) Discuss in detail the disk management techniques followed in OS. (16)