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Question Paper Code: 33025

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2017

Third Semester

Computer Science and Engineering

01UCS305 - OPERATING SYSTEMS

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions.

PART A - (10 x 2 = 20 Marks)

1. Define interrupt. How will you handle interrupt?
2. What is system call? Give examples.
3. What is busy - waiting? Is it preferable over blocking wait? Give reason.
4. What is meant by context switch?
5. What is Belady's anomaly?
6. Define effective access time.
7. What are the functions of virtual file system (VFS)?
8. What is disk stripping?
9. Define rotational latency and disk bandwidth?
10. What is meant by Para virtualization.

PART - B (5 x 16 = 80 Marks)

11. (a) Explain in detail about inter process communication and threading issues. (16)

Or

(b) Explain how hardware protection can be achieved and discuss in detail the dual mode of operations. (16)

12. (a) (i) With a help of diagram discuss the structure of a monitor. (16)

Or

(b) What is meant by a process? Explain states of process with neat sketch and discuss the process state transition with a neat diagram. (16)

13. (a) Explain the concept of demand paging. How can demand paging be implemented with virtual memory. (16)

Or

(b) Discuss the hardware support for segmentation and explain the mapping of logical address to physical address. (16)

14. (a) Explain in detail the free space management with neat diagram. (16)

Or

(b) Discuss about different types of disk scheduling algorithm. (16)

15. (a) Outline the concept kernel I/O subsystem. (16)

Or

(b) Explain in detail about setting up a Linux multifunction server. (16)
