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Course Code: MCA-105

Course Name: Operating Systems with Linux

Assignment - 1

(Based on Unit - I & II)

Marks

- Q1. Keeping in mind the various definitions of operating system, consider (4)
whether the operating system should include applications such as Web
browsers and mail programs. Argue both that it should and that it should
not, and support your answers.
- Q2. Give two reasons why caches are useful. What problems do they solve? (4)
What problems do they cause? If a cache can be made as large as the device
for which it is caching (for instance, a cache as large as a disk), why not
make it that large and eliminate the device?
- Q3. How could a system be designed to allow a choice of operating systems (4)
from which to boot? What would the bootstrap program need to do?
- Q4. Distinguish between: (a) PCS and SCS scheduling, and (b) Preemptive and (4)
Non-preemptive scheduling.
- Q5. What resources are used when a thread is created? Provide three (4)
programming examples in which multithreading provides better
performance than a single-threaded solution.