

Code No: R5310504

III B.Tech I Semester(R05) Supplementary Examinations, December 2009

OPERATING SYSTEMS

(Common to Computer Science & Engineering, Electronics & Instrumentation Engineering,
Information Technology, Electronics & Control Engineering, Computer Science & Systems
Engineering and Electronics & Computer Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. Differentiate Distributed systems from Multiprocessor systems. [16]
2. Discuss various issues of Multithreading programs. [16]
3. Write the short notes on the following
 - (a) Race Condition
 - (b) Process Interaction [8+8]
4. What is a deadlock? What are the necessary conditions for a deadlock occurrence? [16]
5. Explain segmentation scheme for memory management. Give the segmentation hardware. [16]
6. (a) Discuss the delay elements involved in a disk read or write.
(b) Explain SCAN, C- SCAN, F- SCAN disk scheduling algorithms. [6+10]
7. (a) Consider a hierarchical file system in which free disk space is kept in a free space list.
 - i. Suppose the pointer to free space is lost. Can the system reconstruct the free space list?
 - ii. Suggest a scheme to ensure that the pointer is never lost as a result of a single memory failure.
 (b) Why are physically contiguous files faster to read?
(c) What is a FAT file System? [6+5+5]
8. (a) Discuss the four stages of a typical virus during its life time.
(b) Differentiate between reactive password checking and proactive password checking techniques. [8+8]