

R09

Code No: 09A60402

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, HYDERABAD

B. Tech III Year II Semester Examinations, May – 2013

Operating Systems

(Electronics and Communications Engineering)

Time: 3 hours

Max. Marks: 75

Answer any five questions  
All questions carry equal marks

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- 1.a) How a systems call is different from a function call? Explain how system calls are implemented.  
b) Give the classification of systems calls. Elaborate about file-related category. [15]
- 2.a) Distinguish a thread from a process with illustration.  
b) Explain how the process and threads concepts are implemented in UNIX, Linux, and Windows operating systems. [15]
3. Explain Critical- Section Problem (CSP) through bounded buffer Producer Consumer Problem. [15]
- 4.a) Compare logical memory concepts used in Paging and Segmentation.  
b) Explain how Page tables are implemented. [15]
- 5.a) Write the Deadlock Avoidance Algorithm. Discuss how it is different from deadlock prevention.  
b) Mention and brief the three deadlocks handling approaches. [15]
- 6.a) Write about disk-based file allocation methods.  
b) List and distinguish the various disk-file access methods. [15]
7. Write briefly notes on the following:  
a) RAID structure  
b) Disk scheduling. [15]
- 8.a) What is the concept of Access Matrix?  
b) Explain how the access matrix is implemented. Write their pros and cons. [15]

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