

Code No: R05310503

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, HYDERABAD

B. Tech III Year I Semester Examinations, June/July - 2014

OPERATING SYSTEMS

(Common to CSE, IT)

Time: 3 hours

Max. Marks: 80

Answer any five questions
All questions carry equal marks

1. What are the objectives of an operating system? Explain its functions.
- 2.a) Write the differences between a process and a thread.
b) Explain how to create a process in UNIX operating system.
- 3.a) What is a semaphore? Explain various operations of a semaphore.
b) Explain how semaphores are used for producer-consumer problem.
4. Explain Dijkstra's Bankers Algorithm for deadlock avoidance when multiple instances of each type of resources are present.
5. Explain briefly about paging scheme with its merits and demerits.
6. Compare preemptive and non preemptive scheduling methods and explain in detail the SJF and SRTF scheduling policies.
7. What are the different file accessing methods? Explain various file accessing methods with their advantages and disadvantages.
8. Define authentication. Why simple password protection is the most common authentication scheme in use today? Discuss the weakness inherent in the password protection scheme.
