

Code No: 843AC

R17

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

MCA I Semester Examinations, February - 2021

OPERATING SYSTEMS

Time: 2 hours

Max.Marks:75

**Answer any five questions
All questions carry equal marks**

1. What are the different services offered by the operating system? Explain in detail. [15]
- 2.a) Briefly explain typical functions of an Operating-System Kernel.
b) What are the different types of operating systems? Explain them in detail. [7+8]
- 3.a) What is unsafe state ? Differentiate between unsafe state and deadlock state.
b) Explain recovery procedures from deadlocks. [7+8]
4. Explain the following:
a) Scheduling Criteria.
b) Cooperating Processes. [7+8]
5. Explain about message queues and shared memory. [15]
- 6.a) Explain about demand paging.
b) Differentiate between paging and segmentation. [7+8]
- 7.a) Describe file system mounting.
b) Explain the concept and techniques of free space management. [7+8]
8. Write short notes on: a) unix file structure b) system calls in unix. [7+8]

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