

Code No: 135SC

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year I Semester Examinations, February - 2022

OPERATING SYSTEMS

(Computer Science and Engineering)

Time: 3 hours

Max. Marks: 75

Answer any five questions  
All questions carry equal marks

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- 1.a) What is a system call? Explain various types of system calls.  
b) Explain the structure of OS. [7+8]
- 2.a) Differentiate between multi-programming and multi-processing.  
b) Explain the different types of computing environments in detail. [6+9]
- 3.a) Distinguish between thread and process.  
b) Discuss in detail about inter process communication. [6+9]
4. Explain how producer-consumer problem is solved using semaphores with example. [15]
- 5.a) Explain in detail about demand paging.  
b) Explain the structure of page table. [7+8]
- 6.a) Explain in brief about contiguous memory allocation.  
b) Explain briefly about LRU (Least Recently Used) page replacement algorithm. [6+9]
- 7.a) Give an overview of various system calls for file operations.  
b) Explain in brief about file access methods. [8+7]
- 8.a) Explain the methods for handling deadlocks.  
b) Explain about capability-based systems. [6+9]

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