

**Reg. No:**

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**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR**  
(AUTONOMOUS)  
**MCA I Year II Semester Regular & Supplementary Examinations May 2019**  
**OPERATING SYSTEMS**

Time: 3 hours

Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

**UNIT-I**

- 1 a Write about simple batch, multi-programmed, time-shared systems. 6M  
b What are the objectives and functions of operating systems? 6M

**OR**

- 2 a Explain different services provided by operating systems. 6M  
b Write about system programs. 6M

**UNIT-II**

- 3 Write in detail about process scheduling. 12M

**OR**

- 4 a Describe priority scheduling, Round-robin scheduling algorithms. 6M  
b Explain Semaphores. 6M

**UNIT-III**

- 5 a Explain the structure of the page table. 6M  
b Write about Segmentation. 6M

**OR**

- 6 a Explain Thrashing. 6M  
b Describe demand paging. 6M

**UNIT-IV**

- 7 a Explain any two disk allocation methods. 6M  
b What are the different ways of disk free-space management, explain any three. 6M

**OR**

- 8 Discuss about various disk scheduling in detail. 12M

**UNIT-V**

- 9 a Explain Banker's algorithm for deadlock avoidance. 8M  
b Give the example for Banker's algorithm. 4M

**OR**

- 10 a How to implement Access Matrix? Explain. 6M  
b Explain System and Network Threats. 6M

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