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**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR**  
(AUTONOMOUS)**B.Tech II Year II Semester Supplementary Examinations February-2022****FUNDAMENTALS OF OPERATING SYSTEMS**

(Computer Science &amp; Information Technology)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units **5 x 12 = 60** Marks)**UNIT-I**

- 1 Explain Operating System Structure. 12M

**OR**

- 2 a Write Short Notes On System Call? 6M  
b Write Briefly On Types Of System Call. 6M

**UNIT-II**

- 3 a Write about Critical section problem. 6M  
b Write about Critical problem solution. 6M

**OR**

- 4 a What is semaphore? 6M  
b Write about Implementation of semaphore. 6M

**UNIT-III**

- 5 What is contiguous memory allocation? 12M

**OR**

- 6 a Write about deadlock avoidance. 3M  
b Bankers' algorithm. 7M

**UNIT-IV**

- 7 a Write short notes on Disk Structure. 6M  
b Write short notes on Disk Attachment. 6M

**OR**

- 8 What are the various kinds of allocation methods and explain. 12M

**UNIT-V**

- 9 a Explain I/O hardware. 6M  
b Explain application I/O interface. 6M

**OR**

- 10 Brief about firewalling to protect systems and networks? 12M

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