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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

B.TECH II Year II Semester Supplementary Examinations Dec 2019

FUNDAMENTALS OF OPERATING SYSTEMS

(COMPUTER SCIENCE AND INFORMATION TECHNOLOGY)

Time: 3 hours

Max. Marks: 60

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

UNIT-I

- 1 a Explain Inter Process Communication (IPC) in detail. 6M
b Discuss Message Passing and Shared Memory. 6M

OR

- 2 a Write about System Programs. 6M
b Explain operations on Processes. 6M

UNIT-II

- 3 a Justify Peterson's solution. 6M
b Explain scheduling algorithms. 6M

OR

- 4 Write short notes on the following
a Reader-Writer problem 4M
b Dining Philosopher problem 4M
c Bounded buffer problem 4M

UNIT-III

- 5 a What is segmentation? Explain with an example. 6M
b Explain structure of a page table. 6M

OR

- 6 a What is contiguous memory allocation? Give an example. 8M
b What is thrashing? Explain. 4M

UNIT-IV

- 7 a Discuss swap-space management. 6M
b Explain Directory Implementation. 6M

OR

- 8 a What are the various methods used for file access? 6M
b Write a note on File system mounting. 6M

UNIT-V

- 9 a Explain security problem in detail. 6M
b Discuss access matrix representation for files. 6M

OR

- 10 a What are the computer security classifications? Explain. 6M
b Brief about firewalling to protect systems and networks. 6M

END