

SREE VIDYANIKETHAN ENGINEERING COLLEGE

(An Autonomous Institution, Affiliated to JNTUA, Anantapur)

M.C.A. I Semester (SVEC16) Regular/Supplementary Examinations January - 2018**OPERATING SYSTEMS****[MASTER OF COMPUTER APPLICATIONS]****Time: 3 hours****Max. Marks: 60****Answer One Question from each Unit****All questions carry equal marks****UNIT-I**

1. Illuminate Interprocess Communication. 12 Marks

(OR)

2. Explain the process states and Process Control Block. 12 Marks

UNIT-II

3. Consider the following set of processes with the length of the CPU burst given in milliseconds: 12 Marks

Process	Burst Time	Priority
P1	10	3
P2	1	1
P3	2	3
P4	1	4
P5	5	2

Draw the Gantt charts for FIFO, SJF, Priority and Round Robin (Quantum=1) and find out the minimum average waiting time among four algorithms.

(OR)

4. Compare and contrast preemptive and non-preemptive scheduling. 12 Marks

UNIT-III

5. Discuss algorithms that are used for deadlock avoidance. 12 Marks

(OR)

6. With suitable example, describe more precisely a system resource allocation graph 12 Marks

UNIT-IV

7. Discuss the Paging hardware and Paging model in memory management. 12 Marks

(OR)

8. Illustrate the following Page replacement algorithms: 12 Marks

i) FIFO. ii) OPR. iii) LRU.

UNIT-V

9. Write about Protection and Security-Goals. 12 Marks

(OR)

10. Elucidate domain of protection. 12 Marks

