

MEC-E7001 Example examination

1. Create single machine schedules for the jobs below that minimize a) work in process and b) maximum tardiness. What are the results and how did you end up with them?

Job	Duration	Due date
1	7	5
2	4	12
3	6	17
4	3	24
5	4	9
6	3	21

2. Describe an FM system from the production planning and control point of view.

3. Describe how the following factors affect products' throughput time in production:

- System utilization rate
- Interarrival time variation
- Batch size

4. How does a linear regression model work? What is the meaning of coefficients in the model and how can their importance and contribution to the model output be evaluated?