

## Study questions on MPS, MRP, and JIT

1.

The BOMs (Bill Of Materials) for products A and B is shown in Table 1 below. Data from inventory records are shown in Table 2. The MPS calls for 85 units of product A to be completed in week 4, and 100 units in week 7. The lead time for production of product A is one week. Further, the MPS for product B calls for 180 units to be completed in week 7. The lead time for production of product B is two weeks.

Item	Made of: Number x Item
A	2xC, 1xD
B	1xD, 2xE
D	2xF, 1xE
E	1xF

Table 1

Inventory Record Data

Data category	C	D	E	F
Lot sizing rule	FOQ = 220	L4L	FOQ = 300	POQ (P=2)
Lead time	3 weeks	2 weeks	3 weeks	2 weeks
Safety stock	20	0	0	80
Scheduled receipts	280 (week 1)	None	300 (week 3)	None
On-hand inventory	25	0	150	600

Table 2

Develop the materials requirement plan for the next six weeks for items C, D, E, and F.

Other excersises can be found in the old exams:

2011-06-09: Q7, Q13

2011-08-16: Q2

2012-01-12: Q3, Q9