NORTHEASTERN UNIVERSITY

Department of Mechanical and Industrial Engineering

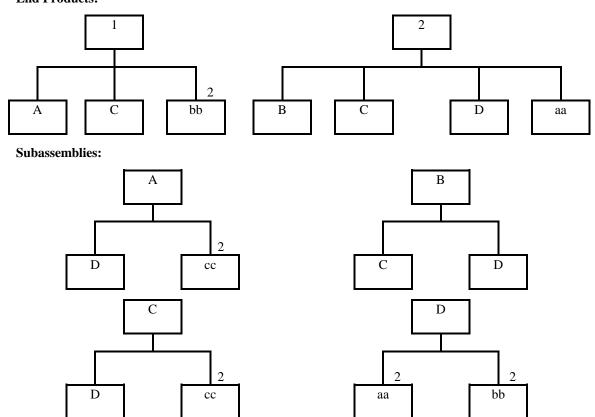
Supply Chain Engineering IE 7200

Prof. Gupta Spring 2017-Monday

Homework No. 4 (Due: February 20, 2017)

Problem 1. A company manufactures two products, which are broken down as follows:

End Products:



Draw the two product-structure trees using low-level coding.

Problem 2. Given the following data, develop the gross and net requirements report for a 6-week period using the tree structure in the previous problem. Assume set up cost to be \$100/order and the carrying cost to be \$0.50/unit/week.

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Item	1	2	Α	В	С	D	aa	bb	cc
Demand in week									
1	10	15							
2	15	20	40						
3	20	25							
4	30	30		20					
5	40	40					30		
6	50	50							10
On-hand Inventory	100	35	30	100	200	100	500	300	300
Lead Time	1	1	1	1	1	1	1	1	1
Lot sizing rule	EOQ	POQ	PPB	LFL	LFL	LFL	LFL	LFL	LFL

HW4-GR-IE7200-SupplyChainEngineering-Spring2017-Monday