

**FATİH UNIVERSITY**  
**FACULTY OF ENGINEERING**  
**DEPARTMENT OF INDUSTRIAL ENGINEERING**  
**IE 325 COST ANALYSIS AND CONTROL**  
**2<sup>st</sup> MIDTERM EXAM**

Duration: 75 Minutes

January 3rd, 2008

**QUESTIONS**

**Question 1. (20 points)** Relax Company sells curtains for \$50 each. The variable manufacturing cost is \$20 per curtain. Fixed manufacturing cost is \$10,000 per month. The company is planning to rent a booth in a shopping mall for selling purposes. The mall coordinator allows three options for each participating company. They are:

- Option 1: paying 10% of revenue made, or
- Option 2: paying a \$4,000 per month fee plus 2% of revenue, or
- Option 3: paying a fixed fee of \$6,000 per month

Which option should Sarah Adams Company choose, assuming

- a. sales are expected to be 1,000 curtains in a month?
- b. sales are expected to be 1,500 curtains in a month?
- c. sales are expected to be 2,000 curtains in a month?

**Question 2. (20 points)** Korhan Company has a current production level of 10,000 units per month. Costs at this level are:

Direct materials	\$ 0.50 per unit
Direct labor	0.40 per unit
Variable manufacturing overhead	0.30 per unit
Variable marketing/distribution expenses	0.10 per unit
Fixed manufacturing overhead	\$ 3,200 per month
Fixed marketing expenses	\$ 2,400 per month

Current monthly sales are 8,000 units. A customer from abroad has contacted Korhan Company about purchasing 1,500 units at \$1.35 each only for one time. Current sales would not be affected by the special order, and variable marketing/ distributing costs would not be incurred on the special order. But to satisfy this demand an additional \$300 fixed rental cost will be needed. Should Korhan Company accept this one time special order?

**Question 3. (20 points)** Çukurova Company has three branches. Data for the most recent year is presented below:

	Adana	Mersin	Tarsus
Net Sales	\$ 95.000	85.000	93.000
Cost of sales	77.000	69.000	58.000
Fixed costs:			
Administration costs	8.500	9.500	6.800
Shop Rent Expense	9.000	8.000	6.000
Personnel expenses	9.500	7.700	7.000

Administration costs can not be eliminated even one of the branches closed. Other costs can be eliminated.

- a. Compute the operating income of each department.
- b. Should any branch(es) be eliminated? Which one(s) and why?

**Question 4. (20 points)**

Güçlü Manufacturing Company produces furnitures. It has two departments that process items: Cutting and Assembly. The Information for the Departments for September include:

**Physical Flow of units:**

	<u>Cutting</u>	<u>Assembly</u>
Beginning Work in process inventory	5,000 units	4,000 units
Started during the period	15,000 units	17,000 units
Ending Work in process inventory	3,000 units	5,000 units

**Degree of completion:**

	<u>Cutting</u>	<u>Assembly</u>
Beginning Work in process inventory:		
Direct material	100%	% 30
Conversion costs	40%	% 60
Ending Work in process inventory:		
Direct material	100%	% 40
Conversion costs	60%	% 70

Güçlü Manufacturing Company uses Process Costing and First in First Out Method. Compute the equivalent units for Cutting and Assembly departments.

**Question 5. (20 points)**

YAK Company produces product A and product B using a joint production process. During November 2007, the joint costs of processing the products were \$90,000. Production and sales value information for November were as follows:

<u>Product</u>	<u>Production</u>	<u>Selling Price</u>
Product A	60,000 kg	\$2.00 per kg
Product B	50,000 kg	\$1.80 per kg

Product A may be processed further to yield Product SA for an additional processing cost of \$78,000. Product SA is sold for \$3,30 per kg.

Product B may be processed further to yield Product SB for an additional processing cost of \$50,000. Product SB is sold for \$2,20 per kg.

There were no beginning and ending inventory balances.

- Determine the amount allocated to each product if the estimated net-realizable value method is used.
- Compute the cost per case for each product.