

FATIH UNIVERSITY
 FACULTY OF ECONOMIC AND ADMINISTRATIVE SCIENCES
 DEPARTMENT OF MANAGEMENT
MAN 305 COST ACCOUNTING

Duration: 100 minutes

FINAL EXAM QUESTIONS

January 11, 2010

CHOOSE 5 OF THE QUESTIONS AND ANSWER

Question 1 (20 points) White Medical Services (GMS) has three operating departments, Pediatrics, Geriatrics, and Surgery, and two service departments, Building Services and Energy. GMS allocates the cost of Building Services on the basis of square feet and Energy on the basis of patient days. No distinction is made between variable and fixed costs. Budgeted operating data for the year just completed follow:

	Operating Departments			Service Departments	
	Pediatrics	Geriatrics	Surgery	Building Services	Energy
Budgeted costs before allocation	\$90,000	\$60,000	\$100,000	\$33,000	\$32,000
Square feet	4,000	8,000	10,000	1,000	3,000
Patient days	3,000	5,200	7,800	0	0

Prepare a schedule to allocate service department costs to operating departments by direct method.

Question 2 (20 points) Blue Corporation sells a special product for \$ 220 each. In November, it sold 1,000 units while manufacturing 1,200 units. There was no beginning finished goods inventory on November 1. The Company reported the following information about the production and sales of its only product during its first month of operations:

	<u>Amounts</u>
Direct labor costs	\$ 50,000
Direct materials used	65,000
Fixed administrative expenses	20,000
Fixed manufacturing overhead	60,000
Fixed selling expenses	10,000
Variable manufacturing overhead	35,000
Variable selling expenses	25,000
Sales	220,000

No beginning or ending inventories for direct material and work in process inventories.

- a. Prepare an income statement using variable costing method.
- b. Prepare an income statement using absorption costing method.

Question 3 (20 points) Contribution format income statement of Red Co. for May as follows:

Sales	\$1,200,000
Less variable expenses	<u>800,000</u>
Contribution margin	400,000
Less fixed expenses	<u>300,000</u>
Net income	\$ 100,000

The company has no beginning or ending inventories and produced and sold 20,000 units during the month.

- a. What is the company's contribution margin ratio?
- b. What is the company's break-even in units?
- c. If sales increase by 100 units, by how much should net income increase?
- d. How many units would the company have to sell to attain target profits of \$125,000?

Question 4 (20 points) Pink Company manufactures two models: Model A and B. The Company uses activity based costing. Its costing system has two direct cost categories and three indirect cost pools. Three activities have been identified as cost drivers and the related indirect manufacturing costs pooled together to arrive at the following information:

Product	Number of unit produced	Number of Shipments	Number of Components	Number of Testing hour	Number of Direct labor hour
Model A	20,000	200	150	1,200	2,000
Model B	30,000	300	250	3,000	1,500

Activity	Costs	Cost allocation base
Assembly	\$ 75,000	Components
Shipments	\$ 21,000	Number of shipments
Testing	\$ 16,800	Testing hours

Direct material costs are \$4 per unit and \$2 per unit for model A and B respectively.

Direct labor cost is \$30 per direct labor hour.

There is no beginning inventory.

- Compute the unit manufacturing costs of each product.
- Assume that 15,000 units of A and 20,000 B sold. Compute the total cost of goods sold.

Question 5 (20 points) Purple Company is a manufacturing firm that uses job-order costing. The company's inventory balances were as follows at the beginning and end of the year:

	<u>Beginning Balance</u>	<u>Ending Balance</u>
Work in process	27,000	9,000
Finished goods	62,000	77,000

The company applies overhead to jobs using a predetermined overhead rate based on machine-hours. At the beginning of the year, the company estimated that it would work 33,000 machine-hours and incur \$231,000 in manufacturing overhead cost. The following transactions were recorded for the year:

- Materials were used in production, \$307,000 (\$281,000 direct and \$26,000 indirect).
- The following employee costs were incurred: direct labor, \$377,000; indirect labor, \$96,000; and administrative salaries, \$172,000.
- Marketing and selling costs, \$147,000.
- Factory utility costs, \$10,000.
- Depreciation for the year was \$127,000 of which \$120,000 is related to factory operations and \$7,000 is related to selling and administrative activities.
- Manufacturing overhead was applied to jobs. The actual level of activity for the year was 34,000 machine-hours.
- Sales for the year totaled \$1,253,000.

- Prepare a schedule of cost of goods manufactured in good form.
- Was the overhead under- or overapplied? By how much?
- Prepare a journal entry to close any under- or overapplied overhead to Cost of Goods Sold.
- Prepare an income statement for the year in good form. (Use adjusted COGS balance)

Question 6 (20 points) Green Food Processor Company processes direct materials up to the split off point, where three products, K, L, and M are obtained. At split off point 100 kg of K, 400 kg of L and 250 kg of M produced. Cost of purchasing of direct materials and processing it up to the split off point to yield these products was \$30,000.

Product K may be processed further to yield product K-plus for an additional processing cost of \$5,000. K-plus is sold for \$150 per kg. Product L may be processed further to yield product L-plus for an additional processing cost of \$7,000. L-plus is sold for \$80 per kg. Product M may be processed further to yield product M-plus for an additional processing cost of \$10,000. M-plus is sold for \$100 per kg.

There were no beginning and ending inventory balances.

- Allocate the joint costs of \$30,000 to K-plus, L-plus and M-plus products using "Estimated Net Realizable Value (NRV) at split off method".
- Assume that K, L and M are further processed and 150 kg of K-plus, 300 kg of L-plus, and 200 kg of M-plus are sold. How much is the total cost of good sold? Compute the operating income.

Question 7 (20 points) Yellow Inc. uses the FIFO method in its process costing system. The following data concern the operations of the company's first processing department for December.

Work in process, beginning:

Units in process	300 units
Stage of completion with respect to materials	60%
Stage of completion with respect to conversion	80%

Costs in the beginning inventory:

Materials cost	\$ 594
Conversion cost	\$ 8,256

Units started into production during the month ...	26,000 units
Units completed and transferred out	25,500 units

Costs added to production during the month:

Materials cost	\$ 79,732
Conversion cost	\$ 887,626

Work in process, ending:

Units in process	800 units
Stage of completion with respect to materials ...	50%
Stage of completion with respect to conversion ..	40%

- Determine the equivalent units of production for materials and conversion costs.
- Determine the cost per equivalent unit for materials and conversion costs.
- Determine the cost of units transferred out of the department during the month.
- Determine the cost of ending work in process inventory in the department.