

หลักสูตรปริญญาโทวิศวกรรมอุตสาหกรรม
คณะวิศวกรรมศาสตร์ มหาวิทยาลัยสงขลานครินทร์

ข้อสอบกลางภาค ประจำปีภาคการศึกษาที่ 2/2549

วันที่ 24 ธันวาคม 2549

วิชา 228-515 การบัญชีสำหรับผู้บริหาร

เวลา 13.00 - 16.00 น.

จำนวนข้อสอบทั้งหมด 4 หน้า

ห้อง A 401

- คำสั่ง**
- ข้อสอบมี 3 ข้อ (120 คะแนน = 30%)
 - เขียนชื่อ-สกุล รหัส ในข้อสอบและกระดาษคำตอบให้ชัดเจน
 - ให้ทำข้อสอบทุกข้อในกระดาษคำตอบ (9หน้า)
 - ห้ามนำข้อสอบออกนอกห้องสอบ
 - ใช้เครื่องคำนวณได้
 - นักศึกษาที่ ไม่ส่งข้อสอบคืนหรือไม่เขียนชื่อในข้อสอบ (โจทท์) จะไม่ตรวจข้อสอบให้

ชื่อ-สกุล.....
รหัส.....

ข้อ 1 Durall Company manufactures a plastic gasket that is used in automobile engines. The gaskets go through three processing departments: Mixing, Forming, and Stamping. The company's accountant (who is very inexperienced) has prepared a summary of production and costs for the Forming Department as follows for October:

Forming Department costs:

Work in process inventory, October 1, 8,000 units; materials 100% complete; conversion costs $\frac{7}{8}$ complete.....	\$ 22,420*
Costs transferred in from the Mixing Department.....	81,480
Material added during October (added when processing is 50% complete in the Forming Department).....	27,600
Conversion costs added during October.....	<u>96,900</u>
Total departmental costs.....	<u>\$ 228,400</u>

Forming Department costs assigned to:

Units completed and transferred to the Stamping Department, 100,000 units at \$2.284 each.....	\$ 228,400
Work in process inventory, October 31, 5,000 units; conversion costs $\frac{2}{5}$ complete.....	-
Total departmental costs assigned.....	<u>\$ 228,400</u>

* Consists of cost transferred in, \$8,820; materials cost, \$3,400; and conversion costs, \$10,200.

After mulling over the data above, Durall's president commented, "I can't understand what's happening here. Despite a concentrated effort at cost reduction, our unit cost actually went up in the Forming Department last month. With that kind of performance, year-end bonuses are out of the question for the people in that department."

The company uses the weighted-average method in its process costing.

Required:

1. Prepare a revised production report for the Forming Department for October.
2. Explain to the president why the unit cost appearing on the report prepared by the accountant is so high. (30 scores)

ข้อ 2 Delta Controls Corporation, which manufactures two types of sophisticated control valves used in the food processing industry. Valve A has been Delta's main product for 15 years. It is used to control the flow of milk in various food processing operations, such as the production of cookies. Valve B, a more recently introduced product, is a specialty valve used to control the flow of thicker foods such as jelly and applesauce. The basic data for the illustration follow:

	<u>Valve A</u>	<u>Valve B</u>
Annual production and sales.....	30,000 units.	5,000 units.
Direct material.....	\$140	\$140
Direct labor:		
Machining Department.....	30 (1.5 hr.at \$20)	30 (1.5 hr.at \$20)
Assembly Department.....	30 (1.5 hr.at \$20)	30 (1.5 hr.at \$20)
Total prime costs.....	<u>\$200</u>	<u>\$200</u>
Machine time in Machining Department.....	1 hr.	3 hr.
Budgeted overhead costs:		
Machining Department.....	\$630,000	
Assembly department.....	<u>\$315,000</u>	
Total.....	<u>\$945,000</u>	

Suppose Delta's accountants have established the activity cost pools and cost drivers as follows:

Activity	Activity Cost Pool	Quantity of Cost Driver
Machine setups.....	\$6,000	120 setups.
Engineering and design.....	210,000	7,000 engineering hrs.
Material handling.....	22,000	220,000 lb. of material.
Quality control.....	32,000	800 inspections.
Machinery-related costs.....	<u>675,000</u>	45,000 machine hrs.
Total.....	<u>\$945,000</u>	

Delta's accountants estimated how much of each cost driver is consumed by each product line.

<u>Valve A</u>	<u>Valve B</u>
20 setups	100 setups
1,000 engineering hours	6,000 engineering hours
170,000 pounds	50,000 pounds
150 inspections	650 inspections
30,000 machine hrs.	15,000 machine hrs.

Required : Compute manufacturing cost per unit of Valve A and Valve B.

- Using a plantwide overhead rate based on direct - labour hours.
- Using departmental overhead rates. The Machining Department rate is based on machine hours, whereas the Assembly Department rate is based on direct - labour hours.
- Using activity based costing. (35 scores)

ข้อ 3 Production, sales and inventories data for July 2006 are as follows.

- Inventories

	<u>July 1</u>	<u>July 31</u>
Raw materials	\$30,000	\$45,000
Finished goods	-	1,800 units

- Production quantity 15,000 units.
- Purchases of raw materials \$315,000.
- Direct labour (12,000 hrs) \$270,000.

5. Manufacturing overhead (Fixed + Variable) \$180,000. (Using the high - low method to separate fixed and variable costs)
6. Selling expense:
- | | |
|----------|---------------|
| Variable | \$ 1 per unit |
| Fixed | \$ 33,000 |
7. Administrative expense (Fixed) \$45,000.
8. Income tax rate 30%
9. Pricing at 40% above cost of manufacturing.
10. Manufacturing overhead costs for the past six months are as follows.

<u>Year 2006</u>	<u>Direct Labour Hours</u>	<u>Manufacturing Overhead costs</u>
Jan	7,000	\$130,000
Feb	6,500	\$125,000
Mar	5,500	\$115,000
Apr	9,500	\$155,000
May	8,000	\$140,000
Jun	7,500	\$135,000

Required :

1. Compute the break - even point in units and dollars for July 2006.
2. Compute the margin of safety for July 2006.
3. Prepare a cost of goods manufactured statement for the month.
4. Prepare a contribution income statement for the month. (55 scores)