

Name ID No.

Prince of Songkla University

Faculty of Engineering

Final examination : semester I

Academic Year : 2011

Date : October 4, 2011

Time : 13:30-16:30

Subject : 225-455 Cost Analysis

Room : A 401

Instructions :

- 1. Attempt all questions.**
- 2. Write answers in this examination paper.**
- 3. Everything can take into the examination room.**
- 4. If the data is not enough, you can put the hypothesis.**

ทฤษฎีในการสอบ โทษขั้นต่ำ คือ ปรับตกในรายวิชาที่ทฤษฎี
และพักการเรียน 1 ภาคการศึกษา

Boonrueing Manasurakarn



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1. Using FIFO method, refer to the data for the shaping and Milling Department at ABC company. The department completed and transferred 7,200 units to the next department, during May. Since 300 of these units came from the beginning inventory, the Shaping and Milling Department must have started and completed 6,900 units during May. The 300 units in the beginning inventory were 55% complete with respect to material and only 30% complete to conversion costs when the month started. Thus, to complete these units the department must have added another 45% of material cost and another 70% of conversion cost.

- Find
1. The equivalent unit for the department for May.
 2. Calculate the costs per equivalent unit and show Shaping and Milling Production report.
(25 points)

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2. XYZ company produces a single product. Variable manufacturing overhead is applied to products on the basis of direct labor-hours. The standard cost for one unit of product are as follows :

Direct material : 6 ounces at \$ 0.50 per ounce	\$ 3
Direct labor : 1.8 hours at \$ 10 per hour	18
Variable manufacturing overhead : 1.8 hours at \$ 5 per hour	<u>9</u>
Total standard variable cost per unit	\$ <u>30</u>

During June, 2,000 units were produced. The cost associated with June's operations were as follows:

Material purchased : 18,000 ounces at \$0.60 per ounces		\$ 10,800
Material used in production : 14,000 ounces		-
Direct labor : 4,000 hours at \$ 9.75 per hour		39,000
Variable manufacturing overhead costs incurred		20,800

Required : Compute the materials, labor, and variable Manufacturing overhead variance.

(25 points)

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3. Data for the manufacturing overhead of AB company are given below :

Overhead Cost	Cost formula (per machine- hour)	Machine-Hours		
		5,000	6,000	7,000
Variable overhead costs :				
Supplies	\$ 0.20	\$ 1,000	\$1,200	\$ 1,400
Indirect labor	<u>0.30</u>	<u>1,500</u>	<u>1,800</u>	<u>2,100</u>
Total variable overhead cost	<u>0.50</u>	<u>2,500</u>	<u>3,000</u>	<u>3,500</u>
Fixed overhead costs :				
Depreciation		4,000	4,000	4,000
Supervision		<u>5,000</u>	<u>5,000</u>	<u>5,000</u>
Total fixed overhead cost		<u>9,000</u>	<u>9,000</u>	<u>9,000</u>
Total overhead cost		\$ <u>11,500</u>	\$ <u>12,000</u>	\$ <u>12,500</u>

Five hours of machine time are required per unit of product. The company has set denominator activity for the coming period at 6,000 machine-hours (or 1,200 units).

Assume the following actual results for the period :

Number of units produced	1,300 units
Actual machine-hours	6,800 machine-hours
Standard machine-hours allowed	6,500 machine-hours
Actual variable overhead cost	\$ 4,200
Actual fixed overhead cost	\$ 9,400

* 1,300 units x 5 machine-hours per unit.

Required : 1. A variable overhead spending variance.

2. A variable overhead efficiency variance.

3. A fixed overhead budget variance.

4. A fixed overhead volume variance.

(15 points)