

逢甲大學104學年度碩士班考試入學試題

編號：005 科目代碼：303

科目	成本及管理會計	適用系所	會計學系	時間	100 分鐘
----	---------	------	------	----	--------

※請務必在答案卷作答區內作答。 共 3 頁第 1 頁

- 一、逢甲公司是一間僅製作「螺絲」與「螺母」兩種產品的中小企業，客戶最近一直抱怨生產的品質。公司的經理決定要提升製作螺絲與螺母的品質，希望在製程當中加入檢驗程序後再出貨給客戶，所以決定增聘一位檢驗員。請你以「螺絲」產品的角度，舉例說明在何種情況下，該位檢驗員的薪資會符合下列四種情況：（每種情況5%，且說明不可超過50字，否則不計分） 20%

	直接成本	間接成本
變動成本	A	B
固定成本	C	D

- 二、Hicks is a cost accountant and business analyst for Feng Chia Company (FCC), which manufactures expensive brass doorknobs. FCC uses two direct cost categories: direct materials and direct manufacturing labor. Hicks feels that manufacturing overhead is most closely related to material usage. Therefore, FCC allocates manufacturing overhead to production based upon pounds of materials used.

At the beginning of 2012, FCC budgeted annual production of 400,000 doorknobs and adopted the following standards for each doorknob:

	Input	Cost/Doorknob
Direct materials (brass)	0.3 lb. @ \$10/lb.	\$ 3.00
Direct manufacturing labor	1.2 hours @ \$20/hour	24.00
Manufacturing overhead:		
Variable	\$6/lb. * 0.3 lb.	1.80
Fixed	\$15/lb. * 0.3 lb.	<u>4.50</u>
		<u>\$33.30</u>

Actual results for April 2012 were as follows:

Production	35,000 doorknobs
Direct materials purchased	12,000 lb. at \$11/lb.
Direct materials used	10,450 lb.
Direct manufacturing labor	38,500 hours for \$808,500
Variable manufacturing overhead	\$64,150
Fixed manufacturing overhead	\$152,000

Required : For the month of April, compute the following variances, indicating whether each is favorable (F) or unfavorable (U): (30分(@5%))

- a. Direct materials price variance (based on purchases)
- b. Direct materials efficiency variance
- c. Variable manufacturing overhead spending variance
- d. Variable manufacturing overhead efficiency variance
- e. Production-volume variance
- f. Fixed manufacturing overhead spending variance

三、 The Cone Denim Mills sells fabrics to a wide range of industrial and consumer users. One of the products it carries is denim cloth, used in the manufacture of jeans and carrying bags. The supplier for the denim cloth pays all incoming freight. No incoming inspection of the denim is necessary because the supplier has a track record of delivering high-quality merchandise. The purchasing officer of the Cone Denim Mills has collected the following information:

Annual demand for denim cloth	26,400 yards
Ordering cost per purchase order	\$165
Carrying cost per year	20% of purchase costs
Safety-stock requirements	None
Cost of denim cloth	\$9 per yard

The purchasing lead time is 2 weeks. The Cone Denim Mills is open 250 days a year (50 weeks for 5 days a week).

Required: (15%)

1. Calculate the EOQ for denim cloth. (5%)
2. Calculate the number of orders that will be placed each year. (5%)
3. Calculate the reorder point for denim cloth. (5%)

四、 The Nan Ya Plastics Corporation uses an injection molding machine to make a plastic product, Z39, after receiving firm orders from its customers. Nan Ya estimates that it will receive 50 orders for Z39 during the coming year. Each order of Z39 will take 80 hours of machine time. The annual machine capacity is 5,000 hours.

Required: (20%)

1. Calculate (a) the average amount of time that an order for Z39 will wait in line before it is processed and (b) the average manufacturing cycle time per order for Z39. (8%)
2. Nan Ya is considering introducing a new product, Y28. The company expects it will receive 25 orders of Y28 in the coming year. Each order of Y28 will take 20 hours of machine time. Assuming the demand for Z39 will not be affected by the introduction of Y28, calculate (a) the average waiting time for an order received and (b) the average manufacturing cycle time per order for each product, if Nan Ya introduces Y28. (12%)

五、 CMAI Corporation is a small information-systems consulting firm that specializes in helping companies implement standard sales-management software. The market for CMAI's services is very competitive. To compete successfully, CMAI must deliver quality service at a low cost. CMAI presents the following data for 2013 and 2014.

	<u>2013</u>	<u>2014</u>
1. Number of jobs billed	60	70
2. Selling price per job	\$50,000	\$48,000
3. Software-implementation labor-hours	30,000	32,000
4. Cost per software-implementation labor-hour	\$60	\$63
5. Software-implementation support capacity (number of jobs it can do)	90	90
6. Total cost of software-implementation support	\$360,000	\$369,000
7. Software-implementation support-capacity cost per job (row 6 ÷ row 5)	\$4,000	\$4,100

Software-implementation labor-hour costs are variable costs. Software-implementation support costs for each year depend on the software-implementation support capacity CMAI chooses to maintain each year (that is the number of jobs it can do each year). It does not vary with the actual number of jobs done that year.

Required: (15%)

Calculate the growth, price-recovery, and productivity components that explain the change in operating income from 2013 to 2014.