

一、選擇題二十二題共四十四分(考生務必依下列方式將答案寫在答案紙上)

- 1.( ) 2.( ) 3.( ) 4.( ) 5.( ) 6.( ) 7.( ) 8.( ) 9.( ) 10.( )  
11.( ) 12.( ) 13.( ) 14.( ) 15.( ) 16.( ) 17.( ) 18.( ) 19.( ) 20.( )  
21.( ) 22.( )

Use the following information for questions 1 through 4

The Gasson Company sells three products, Product A, Product B and Product C, and had sales of \$1,000,000 during the month of June 1997. The company's contribution margin ratio was 37% and fixed costs totaled \$350,000. Sales were: Product A, \$500,000; Product B, \$300,000; and Product C, \$200,000. Direct fixed costs were: Product A, \$120,000; Product B, \$100,000; and Product C, \$60,000. The variable costs were: Product A, \$300,000; and Product B, \$180,000.

1. The net income for the company as a whole for June was: a) \$20,000; b) \$90,000; c) \$170,000; d) \$300,000; e) none of the above.
2. The marketing department believes sales of Product A would be increased by \$75,000 if advertising were increased by \$20,000. If its proposal is adopted and results occur as predicted: a) The product line segment margin for Product A will increase by \$300,000; b) The contribution margin for Product A will increase by \$27,750; c) The product line segment margin of Product A will increase by \$10,000; d) The total direct fixed costs will equal \$370,000; e) none of the above.
3. Referring back to the original data, if Gasson Company drops Product C: a) Common fixed cost would increase by \$60,000; b) The product line segment margin of Product A would decrease by \$30,000; c) The overall company net income would decrease by \$50,000; d) The overall company net income would increase by \$10,000; e) none of the above.
4. Referring back to the original data, assume that the variable costs for Product C can be lowered to 55 percent by increasing the direct fixed costs of Product C by \$35,000. If sales remain the same for all three products, the overall company net income would: a) increase by \$6,000; b) decrease by \$5,000; c) remain the same; d) cannot be determined from the data provided; e) none of the above.

Use the following information for questions 5 through 7 :

A company has two divisions, S and T. Division T makes a timer which has the following accounting data per timer: variable cost, \$15; fixed cost, \$10 (based on a monthly capacity of 12,000 timers); selling price, \$30. Presently, division S is buying 5,000 timers from an overseas supplier at \$27 each. Division T is operating at capacity, selling on the intermediate market for \$30 per unit all of the timers it can produce.

5. If division S buys 5,000 timers per month from division T, the price per timer that should control the transfers is: a) \$35; b) \$27; c) \$25; d) \$15; e) none of these.
6. If division T meets the price of the overseas supplier and sells 5,000 times to division S each month, the effect on the monthly net income of the company as a whole will be: a) \$15,000 greater; b) \$15,000 less; c) \$60,000 less; d) \$10,000 greater; e) none of these.

(背面仍有題目,請繼續作答)

7. Suppose that division T can sell only 6,000 timers to outside buyers and that the overseas supplier drops its price to \$23 per timer. If division T does not meet this \$23 price, and division S buys 5,000 timers each month from the overseas supplier, the monthly net income of the company as a whole will be: a) \$40,000 less than it could have been; b) \$15,000 greater than at present; c) \$15,000 less than it could have been; d) \$10,000 greater than at present; e) none of these.

Use the following information for questions 8 through 10 :

The Immanuel Company has just obtained a request for a special order of 6,000 jigs to be shipped at the end of the month at a selling price of \$7 each. The company has a production capacity of 90,000 jigs per month. At present, the company is selling 80,000 jigs per month through regular channels at a selling price of \$11 each. For these regular sales, the cost structure for one jig is:

Variable production cost .....	\$4.60
Fixed production cost .....	1.80 (\$144,000 per year)
Variable selling expense .....	1.00

If the special order is accepted, Immanuel will not incur any selling expense; however, it will incur shipping costs of \$0.30 per unit. There is no inventory of jigs on hand.

8. If Immanuel accepts this special order, the change in monthly net income will be: a) \$12,600 increase; b) \$14,400 increase; c) \$3,600 increase; d) \$1,800 increase; e) none of these.
9. At what selling price per unit would Immanuel exactly "break even" on the special order (in terms of relevant costs). Assume that all other conditions stay the same. a) \$7.40; b) \$7.70; c) \$6.40; d) \$4.90; e) none of these.
10. Suppose that regular sales of jigs total 85,000 units per month. All other conditions remain the same. If Immanuel accepts the special order, the change in monthly net income will be: a) \$14,400 increase; b) \$7,200 increase; c) \$3,600 decrease; d) \$5,400 decrease; e) none of these.

Use the following information for questions 11 through 12 :

Spivey Company has two service departments and two producing departments. Budgeted costs and budgeted activity in the various departments for 1977 are shown below:

	Custodial Services	Cafeteria	Cutting Department	Assembly Department
Overhead costs .....	\$126,000	\$70,000	\$300,000	\$500,000
Square feet of space occupied .....	1,000	2,000	8,000	10,000
Number of employees ....	20	30	150	200
Machine-hours.....			40,000	60,000

Service department costs are allocated to producing departments with the costs of Custodial Services allocated first on a basis of square feet of space occupied. The costs of the Cafeteria are allocated on a basis of number of employees. Predetermined overhead rates in the Cutting and Assembly departments are based on machine-hours.

11. Assume that the company uses the step method of allocation. The amount of Custodial Services cost allocated to the Assembly department would be: a) \$0-; b) \$70,000; c) \$63,000; d) \$60,000; e) none of these.

12. Assume again that the company uses the step method of allocation. The amount of cost allocated from the Cafeteria to the cutting department would be: a) \$-0-; b) \$30,000; c) \$30,975; d) \$35,400; e) none of these.

Use the following information for questions 13 through 15:

Ravena Labs., Inc. makes chemical compounds. A particular compound called Snuf has the following standards for one unit of compound:

Direct materials:	2.5 ounces at \$20 per ounce
Direct labor:	1.4 hours at \$12.50 per hour
Variable overhead:	1.4 hours at ?

Variable overhead is assigned on the basis of direct labor hours. The following data about Snuf are available for October:

1. There was no beginning direct materials inventory; the ending direct materials inventory was 2,000 ounces.
  2. Direct materials purchased: 12,000 ounces for \$225,000.
  3. Direct labor hours worked: 5,600 hours at a cost of \$67,200.
  4. Variable overhead costs incurred amounted to \$18,200.
  5. Variable overhead applied to products: \$18,375.
  6. 3,750 units of compound were produced during the month.
13. The direct labor efficiency variance for October is: a) \$1,400 favorable; b) \$1,900 unfavorable; c) \$3,750 favorable; d) \$4,375 unfavorable; e) none of these.
14. The variable overhead spending variance for October is: a) \$1,400 favorable; b) \$1,900 unfavorable; c) \$3,750 favorable; d) \$4,375 unfavorable; e) impossible to determine from the information given.
15. The variable overhead efficiency variance for October is: a) \$1,400 favorable; b) \$1,225 unfavorable; c) \$1,900 unfavorable; d) \$2,700 favorable; e) impossible to determine from the information given.

Use the following information for questions 16 through 18:

Roberts Company manufactures home cleaning products. One of the products, Quickclean, requires 2 pounds of Material A and 5 pounds of Material B in the manufacture of each unit. Material A can be purchased from the supplier for \$.30 per pound and Material B can be purchased for \$.50 per pound.

The finished goods inventory on hand at the end of each month must be equal to 4,000 units plus 25% of the next month's sales. The raw materials inventory on hand at the end of each month (for either Material A or Material B) must be equal to 80% of the following month's production needs.

16. Assume that on January 1 the inventory of Quickclean was 8,000 units. Expected sales in January are 14,000 units and expected sales in February are 18,000 units. The number of units needed to be manufactured in January would be: a) 10,500; b) 14,000; c) 14,500; d) 15,000; e) none of the above.
17. Assume that sales are expected to be 21,000 units in March, 20,000 units in April and 32,000 units in May. If the finished goods inventory on March 31 is 9,000 units, then the desired finished goods inventory on April 30 would be: a) 12,000 units; b) 8,000 units; c) 9,000 units; d) 15,000 units; e) none of the above.
18. Assume that the production budget calls for 26,000 units of Quickclean to be manufactured in June and 32,000 units of Quickclean to be manufactured in July. On May 31 there will be 41,600 pounds of Material A in inventory. The number of pounds of Material A needed for production during June would be: a) 61,600; b) 51,200; c) 35,600; d) 52,000 e) none of the above.

(背面仍有題目,請繼續作答)

19. Jackson, Inc., is preparing a budget for 1997 and requires a breakdown of the cost of steam used in its factory into the fixed and variable elements. The following data on the cost of steam used and direct-labor hours worked are available for the last six months of 1996:

Month	Cost of steam	Direct-labor hours
July	\$ 15,850	3,000
August	13,400	2,050
September	16,370	2,900
October	19,800	3,650
November	17,600	2,670
December	18,500	2,650
Total	<u>\$101,520</u>	<u>16,920</u>

Assuming that Jackson uses the high-low method of analysis, the estimated variable cost of steam per direct-labor hour should be:  
 a) \$4.60; b) \$5.42; c) \$5.92; d) \$6.00; e) none of the above.

20. Maurice Company adds materials at the beginning of the process in the Forming Department, which is the first of two stages of its production cycle. Information concerning the materials used in the Forming Department in April 19x9 is as follows:

	Units	Materials Costs
Work in process at April 1, 19x9 .....	12,000	\$ 6,000
Units started during April .....	100,000	\$51,120
Units completed and transferred to next department during April .....	88,000	

Using the weighted-average method, what was the materials cost of the work in process at April 30, 19x9? a) \$6,120; b) \$11,040; c) \$12,000; d) \$12,240; e) none of these.

Use the following information for questions 21 through 22:

The Maxwell Company manufactures and sells a single product. Price and cost data regarding Maxwell's product and operations are as follows:

Selling price per unit .....	\$25.00
Variable costs per unit:	
Raw materials .....	\$11.00
Direct labor .....	5.00
Manufacturing overhead .....	2.50
Selling expenses .....	1.30
Total variable costs per unit .....	<u>\$19.80</u>
Annual fixed costs:	
Manufacturing overhead .....	\$192,000
Selling and administrative .....	<u>276,000</u>
Total fixed costs .....	<u>\$468,000</u>

Forecasted annual sales volume (120,000 units) ...\$3,000,000

21. Maxwell Company estimates that its direct labor costs will increase 8 percent next year. How many units will Maxwell have to sell next year to reach breakeven? a) 97,500 units; b) 101,740 units; c) 83,572 d) 86,250 units; e) none of the above.

22. If Maxwell Company's direct labor costs do increase 8 percent, what selling price per unit of product must it charge to maintain the same contribution margin ratio? a) \$26.51; b) \$27.00; c) \$25.40; d) \$26.64; e) none of the above.

二、奇美實業公司董事長許文龍先生在短短的二十年間創造了世界第一的 ABS 王國。奇美實業的生產力高得不可思議，其建廠成本只有競爭對手的四分之一，奇美在台灣企業中一直是個謎樣的傳奇。一九六二年奇美公司已經打下「壓克力」的天下，扎穩了事業根基，許文龍開始尋找下一個目標與戰場並一眼看上了「化粧合板」。許文龍要投入化粧合板之前，化粧合板的競爭已經進入白熱化，原來一片售價四百元，卻由三百二十、二百二十、一直降到一百八十元，甚至有些大廠商已開始心萌倦意。許文龍則仔細分析，他不但認為可以做，還可以大做一番。事實上，經過證明他佔下化粧合板市場 60%。

「道理在那裡呢？假設化粧合板一片售價一百四十元，合板的成本只占三十元，化粧合板的貼紙，全部仰賴進口，每片成本約二十五元，但進口稅高達百分之百，也是二十五元，化粧合板貼紙自己印才划算是每個人都能懂的道理」。奇美以自行「組合」原物料開發出來的化粧合板貼紙幾可亂真，很多外界人士誤以為是進口貨。許文龍笑者回憶，挾者可媲美進口貨的品質，當時化粧合板貼紙的印製，其賺錢的容易，曾讓他覺得印鈔票也不過是這個速度。

當化粧合板占領市場 60% 不久，營業額一度慢慢降低。許文龍覺得很奇怪，經過一番檢討以後，發現原因在於公司的會計制度。公司成立之初，有一套完整的會計制度，但事隔多年人事全變，制度依舊。造成化粧合板部門經費分配過高，折舊費估算偏高，形成對外競爭的障礙，公司也因而消極。原來，當時公司會計將「化粧合板」與「印紙」的成本與利潤分開計算，印紙利潤大而化粧合板的利潤薄。會計部門的人員一再以「化粧合板」賠錢來打擊化粧合板部門。殊不知印紙是半成品，化粧合板是成品，成本不能切割單獨看，應以總成本來評估。

許文龍說：「我個人心理上硬是不相信，明明是賺錢生意，為何前會計人員卻說虧本，我就親自再打一遍算盤，發現化粧合板還是一門賺錢的行業，病根係存在於我們的會計制度。會計制度如果不健全，雖然錢沒有流出去，但賺錢的機會錯過了，這種損失才是大」。許文龍這一見解重新注入之後，奇美才找出盲點，重新衝刺。

問題：(二十分)

1. 請分別評論許文龍先生所說的「印紙是半成品，化粧合板是成品，成本不能切割單獨看，應以總成本來評估」與會計部門處理方法二者之適當性。
2. 說明你個人進行「化粧合板產銷決策」時是否使用許文龍先生的方法。

三、Learning Curve in Contract Price Negotiation. Catic Inc. recently developed a new product that includes a rather complex printed circuit board as a component (Catic's part number PCB-31). Although Catic has the ability to manufacture PCB-31 internally, the circuit board is purchased from an independent supplier because the company's printed circuit line has been operating at capacity for some time.

The first contract for 50 units of PCB-31 was awarded to Rex Engineering Company in September, 19A, on the basis of a competitive bid. Rex's bid was significantly lower than those of other bidders. Additional orders for 50 units each were placed with Rex, as shown in the following purchase history schedule:

Date Ordered	Quantity	Unit Price	Total Price
September 15, 19A	50	\$374	\$18,700
November 15, 19A	50	374	18,700
January 1, 19B	50	374	18,700
February 1, 19B	50	374	18,700

Mark Polmik, a buyer for Catic, has determined that the next order for PCB-31 should be for 600 units. He has contacted Kathy Wentz, a Rex salesperson. Polmik indicated that the next PCB-31 order would be for 600 units and that he believed that Catic should receive a lower unit price because of the increased quantity. A few days later, Wentz provided a proposal of \$355 per unit for the 600-unit contract.

Polmik has scheduled a meeting with Wentz for next week for the purpose of negotiating the 600-unit contract. He has asked Catic's Cost Accounting Department for assistance in evaluating the \$355 unit price.

The price bid on the original contract for 50 units was estimated to be based on full cost, because at that time Catic was not sure if there would be future contracts for the PCB-31 board. The cost of materials included in PCB-31 is estimated to be \$180 per unit. The Cost Accounting Department is fairly sure that Rex applies overhead at 100% of direct labor and employee benefit cost. Because Rex Engineering recently received a good deal of coverage by the local media when a strike was narrowly averted, the labor and fringe benefit costs at Rex are known to be approximately \$20 per hour. The printed circuit line at Rex is similar to the one at Catic, and Rex's overhead is believed to be approximately 50% variable and 50%

(背面仍有題目,請繼續作答)

fixed. Similar work at Caticnic evidences a 90% learning curve effect. However, it is assumed that the learning curve effect on fixed overhead per unit is negligible.

Based on foregoing data, the price of a 50-unit order is estimated to comprise the following cost components:

Materials .....	\$ 180
Labor and employee benefits (4 labor hours × \$20) .....	80
Overhead (100% of labor and employee benefits) .....	80
Full cost of PCB-31 component .....	\$ 340
Profit contribution (10% of full cost) .....	34
Unit price .....	\$ 374
Units purchased .....	50
Total contract price .....	<u>\$18,700</u>

Required: (十六分)

- (1) Prepare a schedule that can be used by Mark Polmik during his meeting with Kathy Wentz next week. This schedule should incorporate the learning curve effect that Rex would have experienced on the first 200 units already produced, which should be of use to Polmik in negotiating a contract with Rex Engineering. (Past production was, and future production will be, in lots of 50 units each.)
- (2) What are the implications of an 80% learning curve as opposed to a 90% learning curve?

12. 宏思公司共有六個事業單位，其經營績效可分為單位績效與個人績效兩方面，詳細之績效評估方法說明如下：

(一) 單位績效 (i: 事業單位之編碼; i=1 ~ 6) 得分

1. 單位績效計分方法:	
甲. 目標達成率: a %	$a_i$
乙. 成本降低幅度: b %	$b_i$
丙. 業績超額: c %	$c_i$
單位績效總分( $a_i + b_i + c_i$ )	$T_i$

2. 單位績效獎金分配方法:	
甲. 單位績效總分乘以單位人數( $T_i * N_i$ )	$A_i$
乙. 公司可分配總獎金	B
丙. 每一分數所能分配獎金數 $B \div (\sum A_i)$	C
丁. 單位可分配獎金數( $A_i * C$ )	$D_i$

(二) 個人績效 (j: 各事業單位之員工; j=1 ~  $N_i$ )

1. 個人績效計分方法:	
甲. 基本分數	10
乙. 職務加分(經理 5 分、副理 3 分、課長 1 分等類推)	$k_{ij}$
丙. 主管評鑑	$m_{ij}$
丁. 個人績效總分( $10 + k_{ij} + m_{ij}$ )	$P_{ij}$

2. 個人績效獎金分配方法:	
甲. 各單位累計積分 $\sum P_{ij}$	$E_i$
乙. 各單位可分配獎金數	$D_i$
丙. 各單位每一分數所能分配之獎金數( $D_i \div E_i$ )	$F_i$
丁. 各單位個人可分配獎金金額	$P_{ij} * F_i$

問題: (二十分)

請評估宏思公司績效獎金分配方法並請依下列方式作答

優點或缺點	說明理由或提出改進方法
.....	.....