

國立中央大學八十六學年度碩士班研究生入學試題卷

所別： 企業管理研究所 乙組 科目： 會計學 共二頁 第一頁

[注意] 所有題目均須列出計算式，否則不予計分。

The owners of Stewart Company are interested in selling their business if they can get an acceptable price. They have asked you to help determine a "bench mark" selling price that can be used when negotiating with a potential buyer. Using information contained in the company's financial statements, you prepared the following summary.

YEAR	NET ASSETS	REPORTED NET INCOME
19X1	\$240,000	\$23,550
19X2	262,000	27,480
19X3	285,000	30,900
19X4	314,000	32,600
19X5	336,000	34,970

You believe that the balance sheet has consistently shown fair values for all assets and liabilities. Your approach in determining the company's return on its net assets is to relate the average net assets held for the past five years with the actual average annual earnings for the same period.

(27%) The normal rate of return on net assets for companies in the same industry is 9%.

Required:

- Determine a "bench mark" selling price for the company assuming that implied goodwill can be measured by multiplying the above-average earnings by 5.
- Determine a "bench mark" selling price for the company assuming that implied goodwill can be measured by capitalizing the above-average earnings at the normal rate of return on net assets for the industry.
- Assume that the negotiations between buyer and seller result in the company's being sold on January 5, 19X6, for \$358,000. Assume also that in the first year after the company was purchased, it earned a 10% return based on the net assets acquired on January 5 (excluding goodwill). Determine the reported net income for the first year assuming goodwill is amortized over a period of twenty years.
- In (2), the value of goodwill (V) is determined by dividing the above-average earnings (E) by the normal rate of return on net assets for the industry (i). Prove the formula, $V = E / i$. [Hint: 利用等比級數和公式]

Shaker Corporation experienced a fire on December 31, 1996, in which its financial records were partially destroyed. It has been able to salvage some of the records and has ascertained the following balances:

	December 31, 1996	December 31, 1995
Cash	\$ 30,000	\$ 10,000
Receivables (net)	72,500	126,000
Inventory	200,000	180,000
Accounts payable	50,000	90,000
Notes payable	30,000	60,000
Common stock, \$100 par	400,000	400,000
Retained earnings	113,500	101,000

Additional information:

- The inventory turnover is 3.6 times.
- The return on common stockholders' equity is 22%. The company had no additional paid-in capital.
- The receivables turnover is 9.4 times.
- The return on assets is 20%.
- Total assets at December 31, 1995, were \$605,000.

(20%)

Required:

Compute the following for Shaker Corporation:

- Cost of goods sold for 1996.
- Net sales for 1996.
- Net income for 1996.
- Total assets at December 31, 1996.

參考

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三、 Ittner Company manufactures 2 models of electronic valves for automobile engines. The design of valve IO23 is simpler than that for valve IO29. Ittner Company's plant has 2 service (S1, S2) and 2 production departments (P1, P2). Total overhead costs for 1994 were \$600,000. Of this total, \$100,000 was traced to S1, \$160,000 traced to S2, \$200,000 traced to P1, and \$140,000 traced to P2. The existing cost accounting system allocates overhead costs in the following 2 stages. In Stage 1, overhead costs of service department S1 are allocated to the production departments based on the proportion of their respective machine-hours, and S2 overhead costs are allocated in the proportion of their total direct labor hours. In Stage 2, separate overhead rates are determined for the 2 production departments on the basis of direct labor hours (DLH) to assign overhead costs to 2 products. The direct labor wage rate is \$10 per hour in both production departments.

Product	Total Direct Labor Hours		
	P1	P2	Total
IO23	1,500	2,000	3,500
IO29	1,500	3,000	4,500
Total	3,000	5,000	8,000

Machine-hours	P1	P2
	400	600

An activity-based costing system has been proposed; it traces production overhead to 4 cost pools, each identified with a unique cost driver as presented in the following table:

Activity	Activity Costs	Cost Driver Levels		
		Total	IO23	IO29
P1, DLH	\$ 90,000	3,000	1,500	1,500
P2, DLH	100,000	5,000	2,000	3,000
Setup hours	200,000	200	50	150
Number of inspections	<u>210,000</u>	500	150	350
Total overhead costs	\$600,000			

Other relevant information follows:

	IO23	IO29
Sales price per unit	\$120	\$150
Materials cost per unit	60	80
Number of units sold	5,000	6,000

REQUIRED:

- Determine unit product costs using the existing accounting system.
- Determine unit product costs using the proposed ABC method.
- Analyze the profitability of the 2 products. What should Ittner do to improve its profitability?

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On January 1, 1987, Dew-All Company leased a warehouse from Stayfit Company by signing a noncancelable fifteen-year lease. The lease terms call for a cash payment of \$50,000 immediately, and cash payments of \$50,000 to be made at the end of each year during the fifteen-year term of the lease. Dew-All Company has the option to purchase the warehouse at a bargain price at the end of the lease term. The warehouse has been given an estimated useful life of twenty years, after which no residual value is expected. Dew-All uses the straight-line method of depreciation on all of its plant assets. The market rate of interest was 10% at the time the lease was signed. (Round all amounts to the nearest dollar.)

Required:

Show the accounts and amounts pertaining to the lease and the leased asset as they would appear on Dew-All's balance sheet on December 31, 1988, and on its income statement for the year ended December 31, 1988.

- [註] 1. 將此租賃視為資本租賃。
2. 利率10%，15年年金換算成現值之利息因子為7.6061。