Students' Department

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AMERICAN INSTITUTE EXAMINATIONS

[NOTE.—The fact that these solutions appear in THE JOURNAL OF ACCOUNTANCY should not cause the reader to assume that they are the official solutions of the board of examiners. They represent merely the opinions of the editor of the *Students' Department.*]

EXAMINATION IN ACCOUNTING THEORY AND PRACTICE—PART II

November 18, 1932, 1:30 P. M. to 6:30 P. M.

The candidate must answer questions 1 and 2, and any two of the three following questions:

No. 2 (28 points):

The Endicott Company commenced operations January 1, 1931, manufacturing one type of commodity of a standard pattern.

At the end of the year, the bookkeeper prepared and submitted the following statements:

Exhibit A

Statement of profits

Sales, net—3,500 articles at $40	$140,000
Deduct: Cost of 3,500 articles at $28 (exhibit B)	105,000
Net profit	$ 35,000

Exhibit B

Statement of cost of manufacture and cost of sales

Total expense (exhibit C)			$140,000	
Total articles produced	5,000			
Articles in process	500			
Cost per article		$28		
Cost of 5,000 articles at $28				$140,000
Inventory of 1,000 articles at $28			$ 28,000	
" " 500 " " 14			7,000	35,000
Cost of sales—3,500 articles at $30 (exhibit A)				$105,000

Exhibit C

Expenses

Raw material purchases	$40,000	
Less: inventory—cost, plus freight	3,000	$ 37,000
Salaries and wages		58,000
Freight		4,600
Insurance—factory		2,300
Taxes— "		1,300
Advertising		4,594
Printing and stationery		2,200
Rent of office		2,400

Interest paid	$1,800
General expenses	10,505
Repairs—factory and machinery	2,801
Power, light and heat—factory	7,100
Sundry expenses— "	3,000
Supplies— "	900
Experimental work	400
Stable and auto expense—factory	1,100
Total (exhibit B)	$140,000

The accuracy of these statements is questioned, and you are called upon to check them and to prepare a statement in statistical form showing sales, cost of goods sold, gross profit on sales, selling expenses, net profit on sales, general and administrative expenses, net profit on operations, financial charges and net income for the year.

Your investigation discloses the following:

Salaries and wages account—	
Officers' salaries	$17,400
Salesmen's salaries and commissions	16,400
Labor—direct	16,500
" indirect	7,700
Total	$58,000
Accrued wages, not included in above—	
Labor—direct	$ 1,900
" indirect	600
Total	$ 2,500
Freight account—	
Inward	$ 2,800
Outward	1,800
Total	$ 4,600

Insurance account—
Unexpired, $1,700.
Printing and stationery—
On hand, $850.
Interest paid—
$500 applies to 1932.
General expenses—
$1,300 applies to 1932.

Upon consulting with the president, it was decided that the charge for depreciation on the factory building should be 4 per cent. on $52,000, and on machinery 10 per cent. on $16,000, and that provision for bad debts should be $2,100.

The capital stock outstanding was shown to be $275,000 on December 31, 1931.

Solution:

As the problem does not state the stage of completion of the work-in-process inventory at December 31, 1931, particularly the amount of raw material in process, the candidate may be permitted considerable leeway in his determination of the value of that inventory. In this solution, it is assumed that the entire raw material requirements are placed in process in the first operation and that the amount of labor and manufacturing overhead applied will average one-half the cost to complete.

Exhibit A

THE ENDICOTT COMPANY

Statement of profit and loss for the year ended December 31, 1931

		Amount	Per unit
Net sales		$140,000	$40.00
Cost of sales (exhibit B)		62,920	17.98
Gross profit on sales		$ 77,080	$22.02
Deduct: selling expenses:			
Salesmen's salaries and commissions	$16,400		
Freight out	1,800		
Advertising	4,594		
Total selling expenses		22,794	6.51
Net profit on sales		$ 54,286	$15.51
Deduct: General and administrative expenses:			
Officers' salaries	$17,400		
Printing and stationery	1,350		
Rent of office	2,400		
General expenses	9,205		
Bad debts	2,100		
Total general and administrative expenses		32,455	9.27
Net profit from operations		$ 21,831	$ 6.24
Interest expense		1,300	.37
Net profit for the year before provision for federal income tax		$ 20,531	$ 5.87

NOTE.—The charge for bad debts is considered oftentimes as a selling expense or as a financial expense. However, the more general practice is to treat it as shown above.

Exhibit B

THE ENDICOTT COMPANY

Statement of cost of goods manufactured and sold for the year ended December 31, 1931

		Amount	Units	Cost Per Unit
Materials:				
Raw material purchases	$40,000			
Freight inward	2,800			
Total	$42,800			

		Amount	Units	Cost Per Unit
Less: inventory—cost plus freight	$3,000			
Material used		$39,800	5,000	$ 7.96
Direct labor		18,400	4,750	3.8737
Manufacturing expense:				
Indirect labor	$ 8,300			
Insurance	600			
Taxes	1,300			
Repairs—factory and machinery	2,801			
Power, light and heat	7,100			
Sundry expenses—factory	3,000			
Supplies—factory	900			
Experimental work	400			
Stable and automobile expense—factory	1,100			
Depreciation—factory building	2,080			
Depreciation—machinery	1,600			
Total manufacturing expense	$29,181	4,750		6.1434
Cost of manufacturing		$87,381		$17.9771
Deduct: Inventory of work-in-process		6,484	(note 1)	
Cost of finished goods manufactured		$80,897	4,500	$17.977
Deduct: inventory of finished goods		17,977	1,000	17.977
Cost of goods sold		$62,920	3,500	$17.977

NOTE 1.—To compute the cost of the goods-in-process, it is necessary to multiply these goods by the unit costs applicable to material, labor and overhead. It is assumed that the goods-in-process are half completed (they are valued at one-half of the finished goods valuation in the problem). The value should be determined by multiplying the number of units in process by the unit cost of raw materials, and by one-half of the per unit cost of labor and overhead required to complete. The computation follows:

	Units	Unit cost	Amount
Raw material	500	$7.96	$3,980
Labor	250	3.8737	968
Manufacturing expense	250	6.1434	1,536
Total			$6,484

Exhibit C

THE ENDICOTT COMPANY

Recapitulation of costs for the year ended December 31, 1931

	Amount	Unit cost	Cost of goods sold	Inventories: Work in process	Inventories: Finished goods
Units			3,500	500	1,000
Raw material	$39,800	$ 7.96	$27,860	$ 3,980	$ 7,960
Labor	18,400	3.8737	13,558	968	3,874
Manufacturing expense	29,181	6.1434	21,502	1,536	6,143
Totals	$87,381	$17.9771	$62,920	$ 6,484	$17,977

No. 3 (18 points):

The firm of A, B & C were dealers in securities for their own account and others. On November 30, 1931, the partnership was dissolved because C, whose only capital contribution was his stock-exchange seat, desired to withdraw.

A & B formed a new partnership, taking over all assets and liabilities of the firm, except the stock-exchange seat and the goodwill. (The latter was considered worthless.)

Profits and losses were shared in the ratio of 60, 25 and 15 by A, B and C respectively.

In addition to the trial balance given herewith, which reflects all routine adjustments and accruals, the following information was gathered, as of November 30, 1931:

Customers' free credit balances	$ 202,295
Market value of customers' securities short	36,752
" " " firm " "	29,649
" " " " " long	1,009,479

Trial balance November 30, 1931

Corn Exchange bank	$ 63,215	
National City bank		$ 750,000
Failed to receive		185,483
Stock-exchange seat	350,000	
Goodwill	250,000	
Profit on syndicate transactions		215,932
Loss on joint accounts	79,290	
Partners' salaries	51,583	
Interest received		4,592
Dividends received		21,138
Stock Clearing Corporation	10,000	
Failed to deliver	148,660	
Accrued interest		2,265
Interest paid	68,232	
Interest on partners' capital	42,880	
Salesmen, office and general	255,330	
Customers' ledgers	660,313	228,980
Petty cash	852	
Brokerage	7,543	
Commissions		80,533
Firm securities long	1,458,664	
" " short		16,429
Bank of America		270,000

Revenue stamps	$565	
Commissions receivable	4,843	
" payable		$7,556
Accrued income—syndicates	5,500	
" expense— "		201,677
Capital accounts:		
A		800,000
B		350,000
C		350,000
Drawing accounts:		
A	12,192	
B		16,147
C	31,070	
	$3,500,732	$3,500,732

From the foregoing data, prepare the opening balance-sheet of the new partnership of A & B, as at December 1, 1931.

Solution:

The candidate should not take time to set up working papers in solving this problem, as they are not required. The five adjustments necessary to a correct solution may be made on the examination paper itself. The adjustments are given here for explanatory purposes only.

(1)

Capital account—C	$350,000	
Stock exchange seat		$350,000

To charge C with the stock exchange seat registered in his name, as agreed. (No information is given to support an adjustment for the decline in market value of this seat which undoubtedly did not have a market value of $350,000 on November 30, 1931. The seat is charged to C, and it is registered in his name, and, according to the data furnished, is not to be taken over by the new firm.)

(2)

Profit and loss	250,000	
Goodwill		250,000

To write off the goodwill which is considered worthless.

(3)

Profit and loss	10,067	
Reserve for loss—customers' short accounts		10,067

To provide for possible loss on customers' short accounts not adequately secured.

Customers' credit balances	$228,980
Customers' free credit balances	202,295
Balances representing short sales	$ 26,685
Market value securities short	36,752
Excess representing possible loss to firm	$ 10,067

(Were the firm able to obtain additional margin against these accounts, it undoubtedly would have done so.)

(4)

Profit and loss		$449,185	
Reserve for market decline in firm securities long			$449,185
To provide a reserve for the difference between the book value and the market value of firm securities long.			
Book value	$1,458,664		
Market value	1,009,479		
Amount of reserve	$ 449,185		

(5)

Profit and loss		13,220	
Reserve for possible loss on firm securities short			13,220
To provide for possible loss on firm securities short.			
Market value—amount necessary to cover	$29,649		
Book credit-selling price	16,429		
Amount of reserve	$13,220		

NOTE.—As no information is given regarding the security value supporting customers' long or debit balances, these accounts are considered to be fully secured.

The loss to be distributed to the partners of the old firm is set forth below:

Income accounts:		
Profit on syndicate transactions	$215,932	
Interest received	4,592	
Dividends received	21,138	
Commissions	80,533	$ 322,195
Expense and loss accounts:		
Loss on joint accounts	$ 79,290	
Partners' salaries	51,583	
Interest paid	68,232	
Interest on partners' capitals	42,880	
Salesmen, office and general	255,330	
Revenue stamps*	565	
Brokerage	7,543	
Goodwill (entry No. 2)	250,000	

* Revenue stamps $565 is treated as an expense in this solution, although it is believed that it would not be incorrect, on the data given, to treat it as an inventory of revenue stamps on hand.

Reserve for loss—customers' short accounts (entry No. 3)	$10,067	
Reserve for market decline in firm securities long (entry No. 4)	449,185	
Reserve for possible loss on firm securities short (entry No. 5)	13,220	$1,227,895
Loss to partners		$ 905,700

Distributed as follows:

A—60%	$543,420
B—25%	226,425
C—15%	135,855
Total	$905,700

A, B, and C

Statement of partners' capital accounts November 30, 1931

	A	B	C	Total
Balances—before adjustments—per trial balance of November 30, 1931	$800,000	$350,000	$350,000	$1,500,000
Deduct:				
Stock exchange seat			$350,000	$ 350,000
Loss for period	$543,420	$226,425	135,855	905,700
Drawings—after credits for partners' salaries and interest on capital accounts	12,192	*16,147*	31,070	27,115
Total deductions	$555,612	$210,278	$516,925	$1,282,815
Balances—after adjustments and closing of old partnership—November 30, 1931	$244,388	$139,722	*$166,925*	$ 217,185

A and B

Balance-sheet—November 30, 1931

Assets

Cash in Corn Exchange Bank		$ 63,215
Petty cash		852
Failed to deliver		148,660
Firm securities long	$1,458,664	
Less: reserve for market decline	449,185	1,009,479
Customers' debit balances		660,313
Stock clearing corporation		10,000

Commissions receivable		$ 4,843
Accrued interest receivable		5,500
Due from C		166,925
		$2,069,787

Liabilities and net worth

Bank loans payable:		
National City Bank	$ 750,000	
Bank of Commerce	270,000	$1,020,000
Failed to receive		185,483
Accrued expense		201,677
Accrued interest		2,265
Commissions payable		7,556
Customers' free credit balances		202,295
Customers' short balances		26,685
Firm short balances		16,429
Reserves:		
Reserve for loss—customers' short accounts	$ 10,067	
Reserve for possible loss on firm securities short	13,220	23,287
Net worth:		
Capital account—A	$ 244,388	
Capital account—B	139,722	384,110
		$2,069,787

NOTE.—It is assumed that the account against C is collectible; because the stock exchange seat has value.

It would seem that the bank loans are secured, although nothing is stated in the problem to this effect.