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 editors of the *Students' Department.*)

Examination in Accounting Theory and Practice—Part II

November 18, 1927, 1 P. M. to 6 P. M.

No. 1 (25 points):

From the following balance-sheets and explanatory data, prepare a consolidated balance-sheet.

Submit your working papers relative thereto.

Company X

Balance-sheet—December 31, 1926

Assets

Cash	$20,000
Investment in company Y—	
1,400 shares, par value $100	210,000 (1)
Investment in company Z—	
4,000 shares, par value $50	200,000 (2)
	$430,000

Liabilities and Net Worth

Current liabilities	$80,000
Collateral gold notes, due 1934	100,000
Capital stock—	
Preferred: 1,000 shares, par value $100	100,000
Common: 10,000 shares, no par value	150,000
	$430,000

Company Y

Balance-sheet—October 31, 1926

Assets

Cash	$60,000
Receivables	100,000 (3)
Inventories	300,000 (4)
	$460,000

Liabilities and Net Worth

Accounts payable		$16,000
Capital stock—		
4,000 shares, par value $100		400,000
Surplus—		
Balance, Nov. 1, 1925	$40,000	
Add: Profit for year	14,000	
	$54,000	
Less: Dividends paid Oct. 31, 1926	10,000	$44,000
		$460,000

COMPANY Z

Balance-sheet—December 31, 1926

Assets

Cash	$10,000 (5)
Receivables	40,000 (8)
Inventories	100,000
Investment in company Y—	
800 shares, par value $100	120,000 (6)
Investment in company X—	
250 shares, preferred, par value $100	25,000 (7)
Land, buildings and equipment, as appraised by General Appraisal Co., Dec. 31, 1926, at sound value of	113,000
	$408,000

Liabilities and Net Worth

Accounts payable		$133,000
Capital stock—		
4,000 shares, par value $50		200,000
Surplus—		
Balance, January 1, 1926	$100,000	
Deficit for year 1926	25,000	75,000
		$408,000

NOTES:

(1) Purchased October 31, 1926, at $150 per share.
(2) Purchased January 1, 1926, at $90 per share.
(3) Includes $20,000 due from Z company.
(4) Includes $50,000 goods purchased from company Z.
(5) After remitting $25,000 to company X, which is in transit.
(6) Purchased October 31, 1926, at $150 per share.
(7) Acquired at par.
(8) Includes $25,000 advanced to company X.

Solution:

Following is a key to adjustments and eliminations in the working papers on pages 216 and 217:

A Eliminates receivable by Co. Y and payable by Co. Z.
B Takes up (as on Co. X's books) cash in transit from Co. Z.
C Eliminates Co. X's payable and Co. Z's receivable for cash advance.
D Eliminates par value of Co. Y stock held by Co. X.
E Eliminates surplus at acquisition applicable to above stock.
F Eliminates par value of Co. Y stock held by Co. Z.

G Eliminates surplus at acquisition applicable to above stock.
H Eliminates par value of Co. X preferred stock held by Co. Z.
I Sets up Co. Z stock owned by Co. X at stated cost:

Cost—4,000 shares at $90.00	$360,000.00
Carrying value	200,000.00
Difference presumably written off by Co. X by charge to surplus	$160,000.00

J Eliminates par value of Co. Z stock held by Co. X.
K Eliminates surplus at acquisition applicable to above stock.

Adjustment B is based on what appears to be the more logical of two possible assumptions. Company Z may have been carrying an account payable with company X which was closed by the remittance, or company Z may have charged the remittance to its receivables. The first assumption would mean that company Z had taken the liability on its books and paid it before company X even took up the item as a receivable, for no receivables appear on books of company X. While this might be possible it seems more probable that company Z's remittance represented an advance which it recorded by a charge to its receivables, and which company X will take up by a credit to an account payable. The treatment given the item in adjustment B is based on this assumption.

As to elimination H, it is assumed that the preferred stock is non-participating and that no dividends are in arrears.

Adjustment I was made on the assumption that company X wrote down the Z stock by charge to its surplus account. It is possible that the charge was made to the no-par-value common capital-stock account, and in that case the credit of $160,000 in adjustment I should be made to capital stock.

Company X and Subsidiary Companies Y and Z

Consolidated balance-sheet, December 31, 1926 (see note)

Assets

Cash		$115,000.00
Receivables		95,000.00
Inventories		400,000.00
Land, buildings and equipment		113,000.00
Goodwill		145,800.00
		$868,800.00

Liabilities

Accounts payable and other current liabilities		$209,000.00
Collateral gold notes, due in 1934		100,000.00
Minority interest—45%—in company Y:		
Capital stock	$180,000.00	
Surplus	19,800.00	
		199,800.00

COMPANY X AND SUBSIDIARIES

Consolidated balance-sheet — working papers, December 31, 1926

Assets	Company X Dec. 31, 1926	Company Y Oct. 31, 1926	Company Z Dec. 31, 1926	Adjustments Dr.	Adjustments Cr.	Eliminations	Consolidated balance-sheet
Cash	$20,000.00	$60,000.00	$10,000.00				$90,000.00
Investment in company Y:							
1400 shares, par value $100	210,000.00						
Eliminate book value at acquisition:							
Capital stock						$140,000.00 D	
Surplus—14/40 of $44,000						15,400.00 E	
Goodwill							54,600.00 G
Investment in company Z:							
4,000 shares, par value $50	200,000.00						
Adjustment to raise to cost of $90 per share				$160,000.00 I			
Eliminate book value at acquisition:							
Capital stock						200,000.00 J	
Surplus						100,000.00 K	
Goodwill							60,000.00 G
Receivables		100,000.00	40,000.00			{25,000.00 C 20,000.00 A}	95,000.00
Inventories		300,000.00	100,000.00				400,000.00
Investment in company Y:							
800 shares, par value $100			120,000.00				
Eliminate book value at acquisition:							
Capital stock						80,000.00 F	
Surplus—8/40 of $44,000						8,800.00 G	
Goodwill							31,200.00 G
Investment in company X:							
250 shares, preferred, par value $100			25,000.00				
Eliminate par value						25,000.00 H	
Land, buildings and equipment			113,000.00				113,000.00
Cash in transit				25,000.00 B			25,000.00
	$430,000.00	$460,000.00	$408,000.00			$614,200.00	$868,800.00

Liabilities

Current liabilities	$80,000.00				$25,000.00 B	$25,000.00 C	$80,000.00
Collateral gold notes, due 1934	100,000.00						100,000.00
Accounts payable		$16,000.00	$133,000.00			20,000.00 A	129,000.00
Capital stock:							
Company X:							
Preferred, 1,000 shares	100,000.00					25,000.00 H	75,000.00
Common, 10,000 shares no par value	150,000.00						150,000.00
Company Y, 4,000 shares, par value $100		400,000.00					
Eliminate par value of stock held by Co. X						140,000.00 D	
Eliminate par value of stock held by Co. Z						80,000.00 F	
Minority interest							180,000.00 M
Company Z—4,000 shares, par value $50			200,000.00				
Eliminate par value of stock held by Co. X						200,000.00 J	
Surplus:							
Company X:							
Adjustment to restore Z stock to cost—$90 per share					160,000.00 I		160,000.00 S
Company Y		44,000.00					
Eliminate surplus applicable to X's holdings—14/40						15,400.00 E	
Eliminate surplus applicable to Z's holdings—8/40						8,800.00 G	
Remainder, minority interest—18/40							19,800.00 M
Company Z			75,000.00				
Eliminate surplus at date of acquisition of entire stock issue by Co. X						100,000.00 K	
Deficit since acquisition							25,000.00 S *
	$430,000.00	$460,000.00	$408,000.00	$185,000.00	$185,000.00	$614,200.00	$868,800.00

Capital stock—company X:	
Preferred	$75,000.00
Common	150,000.00
Surplus	135,000.00
	$868,800.00

NOTE.—The balance-sheet of company Y consolidated in the above statement, was as of October 31, 1926, none being available as of December 31, 1926.

Comments:

Mention is made in the problem of goods owned by company Y which were purchased from company Z. Since the purchases were made prior to the date of inter-company stock acquisitions, the profit or loss (if any) was not inter-company profit, and hence may be ignored. For this reason the absence of information in the problem as to the profit made by company Z is of no import.

Accountants are occasionally confronted with the question of the propriety of consolidating balance-sheets as of different dates. This is particularly true when subsidiaries are in foreign countries. There is no serious objection to making such a consolidation, provided the facts are stated and further provided there is no reason to assume that radical changes have occurred in the financial condition of the subsidiary since the date of its balance-sheet.

There is, however, another reason to question seriously the propriety of including the balance-sheet of company Y in the consolidation. Companies X and Z together own only 55 per cent. of the stock of company Y, and the minority interest of 45 per cent. is very large. As shown by the consolidated balance-sheet, the relative interests of the holding company and the minority in the consolidated net assets are:

Holding company:			
Preferred stock	$75,000.00		
Common stock	150,000.00		
Surplus	135,000.00		
Total holding company		$360,000.00	64.3%
Minority:			
Capital stock	$180,000.00		
Surplus	19,800.00		
Total minority		199,800.00	35.7%
Total		$559,800.00	

While a balance-sheet consolidating the accounts of company Y has been given because apparently required by the problem, it appears to the editors of this department that much might be said in favor of consolidating the balance-sheets of only companies X and Z, and including as one item therein the investment in company Y.

Company X and Subsidiary Z

Consolidated balance-sheet—working papers, December 31, 1926

			Adjustments			Consolidated
Assets	Company X	Company Z	Dr.	Cr.	Eliminations	balance-sheet
Cash	$20,000.00	$10,000.00				$30,000.00
Investment in Co. Y	210,000.00	120,000.00				330,000.00
Investment in Co. Z	200,000.00					
Adjustment to raise to cost			$160,000.00 I			
Eliminate book value at acquisition:						
Capital stock					$200,000.00 J	
Surplus					100,000.00 K	
Goodwill						60,000.00 G
Receivables		40,000.00			25,000.00 C	15,000.00
Inventories		100,000.00				100,000.00
Investment in Co. X, preferred		25,000.00			25,000.00 H	
Land, buildings and equipment		113,000.00				113,000.00
Cash in transit			25,000.00 B			25,000.00
	$430,000.00	$408,000.00			$350,000.00	$673,000.00
Liabilities						
Current liabilities	$80,000.00			$25,000.00 B	$25,000.00 C	$80,000.00
Collateral gold notes	100,000.00					100,000.00
Accounts payable		$133,000.00	20,000.00 A			113,000.00
Reclassify as due to affiliated company—Y				20,000.00 A		20,000.00
Capital stock:						
Company X:						
Preferred	100,000.00				25,000.00 H	75,000.00
Common	150,000.00					150,000.00
Company Z		200,000.00			200,000.00 J	
Surplus:						
Company X				160,000.00 I		160,000.00
Company Z		75,000.00			100,000.00 K	25,000.00 *
	$430,000.00	$408,000.00	$205,000.00	$205,000.00	$350,000.00	$673,000.00

COMPANY X AND SUBSIDIARY Z

Consolidated balance-sheet, December 31, 1926

Assets

Cash	$55,000.00
Receivables	15,000.00
Inventories	100,000.00
Land, buildings and equipment	113,000.00
Goodwill	60,000.00
Investment in Co. Y	330,000.00
	$673,000.00

Liabilities

Current liabilities	$80,000.00
Accounts payable	113,000.00
Due to affiliated Co. Y	20,000.00
Collateral gold notes, due in 1934	100,000.00
Capital stock—Co. X:	
Preferred	75,000.00
Common	150,000.00
Surplus	135,000.00
	$673,000.00

This balance-sheet is subject to as much criticism as the preceding one which included the assets and liabilities of company Y, for practically 50 per cent. of the total assets are represented by the investment in company Y, and the balance-sheet gives no evidence of the assets which this investment represents. The amounts of company Y's inventories and receivables are very significant in proportion to those of the consolidation (excluding Y), and the consolidated status as to working assets is not clearly stated when Y's balance-sheet is excluded from the consolidation.

The problem furnishes an excellent illustration of the dilemma presented to the accountant by a consolidation where control is maintained on the basis of a scant majority of stock ownership.

As a matter of interest the following comparison of the consolidated balance-sheets prepared under the two possibilities enumerated above is submitted.

Assets	Company X and subsidiary companies Y and Z	Company X and subsidiary company Z	Difference
Cash	$115,000.00	$55,000.00	$60,000.00
Receivables	95,000.00	15,000.00	80,000.00
Inventories	400,000.00	100,000.00	300,000.00
Land, buildings and equipment	113,000.00	113,000.00	
Goodwill	145,800.00	60,000.00	85,800.00
Investment in Co. Y		330,000.00	330,000.00 *
	$868,800.00	$673,000.00	$195,800.00

* Red.

Liabilities	Company X and subsidiary companies Y and Z	Company X and subsidiary company Z	Difference
Accounts payable and other current liabilities	$209,000.00	$213,000.00	$4,000.00 *
Collateral gold notes, due in 1934	100,000.00	100,000.00	
Minority interest in Co. Y	199,800.00		199,800.00
Capital stock—Co. X:			
Preferred	75,000.00	75,000.00	
Common	150,000.00	150,000.00	
Surplus	135,000.00	135,000.00	
* Red.	$868,800.00	$673,000.00	$195,800.00

No. 3 (20 points):

From the statements following, submitted by Brown & Jones (a copartnership) conducting a retail grocery store, prepare a profit-and-loss account for the year ended December 31, 1926, and the capital accounts of the partners who share equally in the profits:

Balance-sheets—December 31, 1926 and 1925

Assets

	December 31 1926	1925
Current:		
Cash	$10,500	$7,500
Customers' accounts receivable	55,000	51,000
Inventories	105,000	90,000
Total current assets	$170,500	$148,500
Prepaid:		
Insurance and real-estate taxes	$2,500	$2,250
Fixed—at cost, less depreciation:		
Real estate	$15,000	$10,000
Buildings	55,000	57,000
Equipment	9,000	10,000
Motor vehicles, etc.	10,000	12,000
Total fixed assets	$89,000	$89,000
Total assets	$262,000	$239,750

Liabilities

	1926	1925
Current:		
Notes payable—bank	$50,000	$40,000
Trade accounts payable	15,000	10,000
Manager's bonus	2,000	1,000
Total current liabilities	$67,000	$51,000
Capital:		
John Brown	$125,000	$104,000
David Jones	70,000	84,750
Total capital	$195,000	$188,750
Total liabilities and capital	$262,000	$239,750

BROWN AND

Working papers for the year

	Trial balance after closing December 31, 1925		Transactions for the year ended December 31, 1926	
	Dr.	Cr.	Dr.	Cr.
Cash	$7,500		(a) $594,250	(b) $591,250
Customers' accounts receivable	51,000		(c) 504,000	(a) 500,000
Inventories	90,000			
Prepaid insurance and real-estate taxes	2,250		(b) 3,000	
Real estate	10,000		(b) 5,000	
Buildings	57,000			
Equipment	10,000			
Motor vehicles, etc.	12,000		(b) 3,500	
Notes payable—bank		$40,000	(b) 80,000	(a) 90,000
Trade accounts payable		10,000	(b) 400,000	(d) 405,000
Manager's bonus		1,000	(b) 1,000	
John Brown, capital		104,000		
David Jones, capital		84,750		
	$239,750	$239,750		
Rental income				(a) 2,000
Purchase allowances				(a) 750
Haulage, etc				(a) 1,500
Wages of store assistants			(b) 15,000	
Wages of drivers			(b) 7,500	
Miscellaneous expenses			(b) 6,000	
Discount on notes payable			(b) 3,450	
John Brown, drawing			(b) 15,525	
David Jones, drawing			(b) 51,275	
Sales				(c) 504,000
Insurance and real-estate taxes				
Purchases			(d) 405,000	
			$2,094,500	$2,094,500
Manager's bonus				
Depreciation on buildings				
Depreciation on equipment				
Depreciation on motor vehicles				
Net profit for year ended December 31, 1926				

Jones

ended December 31, 1926

Adjustments		Trial balance before closing December 31, 1926		Profit and loss		Balance-sheet	
Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.
		$10,500				$10,500	
		55,000				55,000	
(3) $105,000	(2) $90,000	105,000				105,000	
	(1) 2,750	2,500				2,500	
		15,000				15,000	
	(5) 2,000	55,000				55,000	
	(6) 1,000	9,000				9,000	
	(7) 5,500	10,000				10,000	
			$50,000				$50,000
			15,000				15,000
	(4) 2,000		2,000				2,000
			104,000				104,000
			84,750				84,750
			2,000		$2,000		
			750		750		
			1,500		1,500		
		15,000		$15,000			
		7,500		7,500			
		6,000		6,000			
		3,450		3,450			
		15,525				15,525	
		51,275				51,275	
			504,000		504,000		
(1) 2,750		2,750		2,750			
(2) 90,000	(3) 105,000	390,000		390,000			
(4) 2,000		2,000		2,000			
(5) 2,000		2,000		2,000			
(6) 1,000		1,000		1,000			
(7) 5,500		5,500		5,500			
$208,250	$208,250	$764,000	$764,000				
				73,050			73,050
				$508,250	$508,250	$328,800	$328,800

Cash receipts and disbursements, year ended December 31, 1926

Cash on hand—December 31, 1925	$7,500	
Receipts:		
Customers	500,000	
Rent of apartments above stores	2,000	
Suppliers—allowances on defective goods	750	
Haulage, etc.	1,500	
Notes payable discounted	90,000	
Disbursements:		
Wholesalers		$400,000
Wages of store assistants		15,000
Wages of drivers		7,500
Miscellaneous expenses, including telephone, etc.		6,000
Manager's bonus—year 1925		1,000
Notes payable		80,000
Discount on notes payable		3,450
Insurance and real-estate taxes		3,000
John Brown		15,525
David Jones		51,275
Real estate purchased		5,000
Motor vehicles purchased		3,500
Cash on hand—December 31, 1926		10,500
	$601,750	$601,750

Solution:

The transactions for the period are shown by the working papers on pages 222 and 223, which also show the reconstruction of the nominal accounts for the year ended December 31, 1926:

Transactions for the year ended December 31, 1926:

(a) To record cash receipts for the year ended December 31, 1926.

(b) To record cash disbursements for the year ended December 31, 1926.

(c) To record sales for the year ended December 31, 1926, which are computed as follows:

Amount of accounts receivable December 31, 1926	$55,000.00
Received from customers during year	500,000.00
Total	$555,000.00
Less:	
Amount of accounts receivable December 31, 1925	51,000.00
Balance, representing amount of 1926 sales	$504,000.00

(d) To record purchases for the year ended December 31, 1926, which are computed as follows:

Amount of trade accounts payable December 31, 1926	$15,000.00
Payments to wholesalers during year	400,000.00
Total	$415,000.00
Amount of trade accounts payable December 31, 1925	10,000.00
Balance, representing amount of 1926 purchases	$405,000.00

Profit and loss, 1926

1926		F		1926		F	
Dec. 31	Inventory, January 1, 1926	J	$90,000.00	Dec. 31	Sales	J	$504,000.00
31	Purchases	J	405,000.00	31	Inventory, December 31, 1926	J	105,000.00
31	Wages, store assistants	J	15,000.00	31	Rental income	J	2,000.00
31	Wages, drivers	J	7,500.00	31	Purchase allowances	J	750.00
31	Miscellaneous expense	J	6,000.00	31	Haulage, etc.	J	1,500.00
31	Discount on notes payable	J	3,450.00				
31	Insurance and real-estate taxes	J	2,750.00				
31	Manager's bonus	J	2,000.00				
31	Depreciation, buildings	J	2,000.00				
31	Depreciation, equipment	J	1,000.00				
31	Depreciation, motor vehicles	J	5,500.00				
31	John Brown, capital	J	36,525.00				
31	David Jones, capital	J	36,525.00				
			$613,250.00				$613,250.00

John Brown, capital

1926		F		1926		F	
Dec. 31	John Brown, drawing	J	$15,525.00	Jan. 1	Balance		$104,000.00
	Balance		125,000.00	Dec. 31	Profit and loss	J	36,525.00
			$140,525.00				$140,525.00
				1927			
				Jan. 1	Balance		$125,000.00

David Jones, capital

1926		F		1926		F	
Dec. 31	David Jones, drawing	J	$51,275.00	Jan. 1	Balance		$84,750.00
	Balance		70,000.00	Dec. 31	Profit and loss	J	36,525.00
			$121,275.00				$121,275.00
				1927			
				Jan. 1	Balance		$70,000.00

Adjusting entries, December 31, 1926:

(1) To record insurance and real-estate taxes for the year ended December 31, 1926, computed as follows:

Prepaid insurance and real-estate taxes, December 31, 1925	$2,250.00
Insurance and real-estate taxes paid during year	3,000.00
Total	$5,250.00
Prepaid insurance and real-estate taxes, December 31, 1926	2,500.00
Balance, representing expense for 1926	$2,750.00

(2) To close to purchases account the inventories at December 31, 1925.

(3) To record inventories at December 31, 1926.

(4) To record manager's bonus for the year 1926.

(5), (6) and (7) To record depreciation for the year 1926.

The profit-and-loss account for the year ended December 31, 1926, and the partners' capital accounts can now be prepared from the working papers (see page 225).