Recap_II Assessment

Sample questions

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T F

2. The basic idea underlying responsibility accounting is that a manager should be held responsible for those items—and only those items—that the manager can actually control to a significant extent.

T F

3. Lusk Corporation produces and sells 14,000 units of Product X each month. The selling price of Product X is $22 per unit, and variable expenses are $16 per unit. A study has been made concerning whether Product X should be discontinued. The study shows that $73,000 of the $103,000 in monthly fixed expenses charged to Product X would not be avoidable even if the product was discontinued. If Product X is discontinued, the annual financial advantage (disadvantage) for the company of eliminating this product should be:

a) ($54,000)
b) $19,000
c) $49,000
d) ($49,000)

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	Keep Product X	Drop Product X	Difference
Sales (14,000 units × $22 per unit)	$ 308,000	$ 0	$(308,000)
Variable expenses (14,000 units × $16 per unit)	224,000	0	224,000
Contribution margin	84,000	0	(84,000)
Fixed expenses	103,000	73,000	30,000
Financial advantage (disadvantage)	$ (19,000)	$ (73,000)	$ (54,000)

BUDGET

The marketing department of Jessi Corporation has submitted the following sales forecast for the upcoming fiscal year (all sales are on account):

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Budgeted unit sales	11,000	12,000	14,000	13,000

The selling price of the company's product is $18.00 per unit. Management expects to collect 65% of sales in the quarter in which the sales are made, 30% in the following quarter, and 5% of sales are expected to be uncollectible. The beginning balance of accounts receivable, all of which is expected to be collected in the first quarter, is $70,200.

The company expects to start the first quarter with 1,650 units in finished goods inventory. Management desires an ending finished goods inventory in each quarter equal to 15% of the next quarter's budgeted sales. The desired ending finished goods inventory for the fourth quarter is 1,850 units.

Required:

1. Calculate the estimated sales for each quarter of the fiscal year and of the year as a whole.
2. Calculate the expected cash collections for each quarter of the fiscal year and of the year as a whole.
3. Calculate the required production in units of finished goods for each quarter of the fiscal year and of the year as a whole.

1.

Jessi Corporation
Sales Budget

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year
Budgeted unit sales					
Selling price per unit					
Total sales					

2.

Schedule of Expected Cash Collections

Beginning accounts receivable					
1st Quarter sales (65%, 30%)					
2nd Quarter sales (65%, 30%)					
3rd Quarter sales (65%, 30%)					
4th Quarter sales (65%)					
Total cash collections					

3.

Jessi Corporation
Production Budget

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year
Budgeted unit sales					
Add desired units of ending finished goods inventory*					
Total needs					
Less units of beginning finished goods inventory**					
Required production in units					

1.

Jessi Corporation
Sales Budget

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year
Budgeted unit sales	11,000	12,000	14,000	13,000	50,000
Selling price per unit	× $18.00	× $18.00	× $18.00	× $18.00	× $18.00
Total sales	$198,000	$216,000	$252,000	$234,000	$900,000

2.

Schedule of Expected Cash Collections

Beginning accounts receivable	$ 70,200				$ 70,200
1st Quarter sales (65%, 30%)	128,700	$ 59,400			188,100
2nd Quarter sales (65%, 30%)		140,400	$ 64,800		205,200
3rd Quarter sales (65%, 30%)			163,800	$ 75,600	239,400
4th Quarter sales (65%)				152,100	152,100
Total cash collections	$198,900	$199,800	$228,600	$227,700	$855,000

3.

Jessi Corporation
Production Budget

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year
Budgeted unit sales	11,000	12,000	14,000	13,000	50,000
Add desired units of ending finished goods inventory*	1,800	2,100	1,950	1,850	1,850
Total needs	12,800	14,100	15,950	14,850	51,850
Less units of beginning finished goods inventory**	1,650	1,800	2,100	1,950	1,650
Required production in units	11,150	12,300	13,850	12,900	50,200

* For end of first quarter: 12,000 units × 15% = 1,800 units.
** For beginning of first quarter: 11,000 units × 15% = 1,650 units.

CAPITAL BUDGETING

Derrick Iverson is a divisional manager for Holston Company. His annual pay raises are largely determined by his division's return on investment (ROI), which has been above 20% each of the last three years. Derrick is considering a capital budgeting project that would require a $3,000,000 investment in equipment with a useful life of five years and no salvage value. Holston Company's discount rate is 15%. The project would provide net operating income each year for five years as follows:

Sales		$2,500,000
Variable expenses		1,000,000
Contribution margin		1,500,000
Fixed expenses:		
Advertising, salaries, and other fixed out-of-pocket costs	$600,000	
Depreciation	600,000	
Total fixed expenses		1,200,000
Net operating income		$ 300,000

Required:

1. Compute the project's net present value.
2. Compute the project's simple rate of return.
3. Would the company want Derrick to pursue this investment opportunity? Would Derrick be inclined to pursue this investment opportunity? Explain.

1. The net present value is computed as follows:

	Now	Years 1-5
Purchase of equipment	$(3,000,000)	
Sales		$ 2,500,000
Variable expenses		(1,000,000)
Out-of-pocket costs		(600,000)
Total cash flows (a)	$(3,000,000)	$ 900,000
Discount factor (15%) (b)	1.000	3.352
Present value (a)×(b)	$(3,000,000)	$3,016,800
Net present value	$16,800	

2. The simple rate of return would be:

$$\text{Simple rate of return} = \frac{\text{Annual incremental net income}}{\text{Initial investment}}$$

$$= \frac{\$300,000}{\$3,000,000} = 10.0\%$$

3. The company would want Derrick to pursue the investment opportunity because it has a positive net present value of $16,800. However, Derrick might be inclined to reject the opportunity because its simple rate of return of 10% is well below his historical return on investment (ROI) of 20%. Derrick may be justifiably concerned that implementing this project would lower his ROI and his next pay raise.

FINANCIAL STATEMENT ANALYSIS

Castile Products, Inc. Balance Sheet December 31	
Assets	
Current assets:	
Cash	$ 6,500
Accounts receivable, net	35,000
Merchandise inventory	70,000
Prepaid expenses	3,500
Total current assets	115,000
Property and equipment, net	185,000
Total assets	$300,000
Liabilities and Stockholders' Equity	
Liabilities:	
Current liabilities	$ 50,000
Bonds payable, 10%	80,000
Total liabilities	130,000
Stockholders' equity:	
Common stock, $5 per value	30,000
Retained earnings	140,000
Total stockholders' equity	170,000
Total liabilities and stockholders' equity	$300,000

Castile Products, Inc. Income Statement For the Year Ended December 31	
Sales	$420,000
Cost of goods sold	292,500
Gross margin	127,500
Selling and administrative expenses	89,500
Net operating income	38,000
Interest expense	8,000
Net income before taxes	30,000
Income taxes (30%)	9,000
Net income	$ 21,000

Account balances at the beginning of the year were: accounts receivable, $25,000; and inventory, $60,000. All sales were on account.

Compute:

Working capital; Current ratio; Acid-test ratio; Debt-to-equity ratio; Return on total assets; Return on Equity; Book value per share.

Last year total assets: 280,000

Last year stockholders' equity: 161,600

Calculation of working capital:

Current assets	$115,000
Current liabilities	50,000
Working capital	$65,000

Current ratio:

$$\frac{\text{Current assets}}{\text{Current liabilities}} = \frac{\$115{,}000}{\$50{,}000} = 2.3$$

Acid-test ratio:

$$\text{Acid-test ratio} = \frac{\text{Cash + Marketable securities + Accounts receivable + Short-term notes receivable}}{\text{Current liabilities}}$$

$$= \frac{\$6{,}500 + \$0 + \$35{,}000 + 0}{\$50{,}000} = 0.83$$

Debt-to-equity ratio:

$$\frac{\text{Total liabilities}}{\text{Total stockholders' equity}} = \frac{\$130{,}000}{\$170{,}000} = 0.76 \text{ (rounded)}$$

Return on total assets:

$$\text{Return on total assets} = \frac{\text{Net Income} + \left[\text{Interest expense} \times (1 - \text{Tax rate})\right]}{\text{Average total assets}}$$

$$= \frac{\$21{,}000 + \left[\$8{,}000 \times (1 - 0.30)\right]}{(\$280{,}000 + \$300{,}000) / 2}$$

$$= \frac{\$26{,}600}{\$290{,}000} = 9.2\% \text{ (rounded)}$$

Return on equity:

$$\text{Return on equity} = \frac{\text{Net income}}{\text{Average common stockholders' equity}}$$

$$= \frac{\$21{,}000}{(\$161{,}600 + \$170{,}000) / 2}$$

$$= \frac{\$21{,}000}{\$165{,}800} = 12.7\% \text{ (rounded)}$$

Book value per share:

$$\text{Book value per share} = \frac{\text{Total stockholders' equity}}{\text{Number of common shares outstanding}}$$

$$= \frac{\$170{,}000}{6{,}000 \text{ shares}} = \$28.33 \text{ per share (rounded)}$$