

REVIEW EXERCISE

I. TRUE-FALSE. Circle the best answer.

- T F 1. A cash flow projection shows the expected profitability of a farming operation for the coming year.
- T F 2. When a farmer repays a loan, net worth is increased.
- T F 3. An increase in prepaid expenses generates a positive accrual adjustment to cash operating expenses (causing expenses to increase).
- T F 4. A reconciliation of net worth can be used to reconcile the income statement and the historical cash flow statement.
- T F 5. Owner equity on a cost basis is always less than owner equity on a market value basis.
- T F 6. When market value net worth is increasing over time, that means net income of the business has been positive.
- T F 7. Accrual net farm income is always less than or equal to net cash farm income.
- T F 8. With the exception of depreciation, Schedule F always provides a reliable estimate of net cash income.
- T F 9. Principal payments on operating loans are an expense item that should be included in calculating net farm income.
- T F 10. Unrealized capital gains on land are not included in measuring net farm income.
- T F 11. If capital replacement and term debt repayment capacity (before subtracting out uses of capacity) is negative, that means there is insufficient cash to pay all loan obligations.
- T F 12. If Repayment Margin after Replacement is consistently positive, you would expect working capital to be increasing.
- T F 13. If net earnings (after withdrawals) is positive, then capital replacement and term debt repayment capacity must also be positive.
- T F 14. Cash flow statements can be used to determine if there is adequate cash to meet capital debt obligations but they cannot be used to determine if there is adequate capacity to meet capital debt obligations.
- T F 15. Interest expense/value of farm production is a financial efficiency measure.
- T F 16. Net farm income is a measure of solvency.

- T F 17. If the ratio of interest expenses to value of farm production is 50 percent, it is highly likely the operation will have a negative net income.
- T F 18. The higher the debt-to-asset ratio the higher is the debt-to-equity ratio.
- T F 19. If the interest rate on borrowed money is higher than the percent return on assets, then the percent return on equity capital is always negative.
- T F 20. A current asset-to-current liability ratio of 2:1 is usually considered a sign of serious liquidity problems.
- T F 21. A leverage ratio (D/E) is a good measure of the liquidity position of a farm firm.
- T F 22. Balance sheets of borrowers with investments in other entities should always be consolidated no matter how small the involvement of the borrower in one of those entities.
- T F 23. Consolidation requires that balance sheets for various entities be constructed for the same date.
- T F 24. If a borrower has principal payments related to depreciable assets that are greater than estimate of gross capital replacement, you should indicate a negative number as the true net replacement analysis when you calculate Repayment Margin after Replacement.
- T F 25. Gain or loss on sale of capital assets must be included in the calculation of net earnings or you will be unable to reconcile owner equity.

II. PROBLEMS

1. Jack Smith buys \$70,000 of machinery on July 1, X1. The purchase requires \$20,000 down and \$10,000 of principal payments on July 1 of each of the next 5 years. Interest is 10% on the remaining balance and is paid annually along with principal payments.
- _____ a. What is the amount of accrued interest on this loan as of 12/31/X1?
(7/1/X1 to 12/31/X1 is 1/2 year)
- _____ b. What is the amount of current liabilities for this loan as of 12/31/X1?
- _____ c. What is the amount of noncurrent liabilities for this loan as of 12/31/X1?
- _____ d. Assuming no default or rescheduling, what is the amount of interest paid in cash on this loan in X2?
- _____ e. What is the total amount of interest expenses (cash interest and the adjustment for changes in accrued interest) that would be reported on the X2 accrual income statement?

2. Suppose you observe the following patterns of cash flows and repayment capacity (accrual) for a given farm operation.

	<u>X1</u>	<u>X2</u>	<u>X3</u>	<u>X4</u>
Cash available after debt amortization	42,000	30,000	33,000	7,500
Repayment Capacity	60,000	31,000	38,000	39,000
Total debt service	35,000	36,000	39,000	40,000
Net capital replacement	15,000	14,000	16,000	20,000
Repayment Margin after Replacement	10,000	-19,000	-17,000	-21,000

- T F a. This data indicates the farming operation has generated sufficient cash to meet capital debt obligations.
- T F b. This operation is in a good position to handle additional capital debt.
- T F c. This operation is likely generating cash by depleting inventory or by allowing accounts payable to increase.

3. Given the following information for Fred Farmer:

Fred Farmer			
December 31, X1			
Assets		Liabilities	
Current assets	\$150,000	Current liabilities	\$200,000
Non-current assets	\$550,000	Non-current liabilities	\$200,000
Net Farm Income (after family living) for X1			\$25,000
Interest Expenses for X1			\$40,000

- _____ a. What is the amount of owner equity?
- _____ b. What is the current ratio?
- T F c. The current ratio would be considered favorable by most lenders.
- _____ d. What is the debt-to-asset ratio?
- _____ e. What is the debt-to-equity ratio?
- _____ f. What is the percent return on assets (ROA)?
- _____ g. What is the percent return on equity (ROE)?

4. Given the following partial balance sheet information and that net cash income after depreciation and withdrawals was \$35,000 for the period, calculate accrual net earnings.

	<u>Beginning</u>	<u>Ending</u>
Assets		
Cash	6,000	12,000
Accounts Receivable	20,000	12,000
Inventories	60,000	65,000
Prepaid Expenses	12,000	8,000
Liabilities		
Accounts Payable	5,000	2,500
Operating Loans	36,000	29,000
Accrued Interest	13,500	20,700

5. Given the following information for Frank and Frieda Farmer:

Frank and Frieda Farmer		
Market Value Balance Sheets		
	<u>1/15/X1</u>	<u>2/4/X2</u>
Assets		
Current Assets	265,000	400,000
Machinery	440,000	450,000
Real Estate	1,200,000	950,000
Other Non-Current	<u>50,000</u>	<u>50,000</u>
Total Assets	1,955,000	1,850,000
Liabilities		
	885,000	935,000
Net Worth	<u>1,070,000</u>	<u>915,000</u>
Total Liab and NW	1,955,000	1,850,000
Net Worth Change	(155,000)	

No land was purchased, contributed or sold this period.

Machinery Sales: \$40,000

Machinery Purchases: \$65,000 and \$30,000

Note: The machinery depreciation implicit in the balance sheets can be used as a proxy for actual depreciation.

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|---|---|---|
| T | F | a. Is the negative \$155,000 change in net worth shown over period an accurate representation of the change in retained earnings? |
| | | b. How much machinery depreciation is reflected on these financial statements for the entire period? |
| | | c. Assuming the farmer withdrew \$30,000 for family living, what is the cumulative net income for the period? |

6. Given the following information, calculate withdrawals.

Net Income	30,000
Ending Net Worth	300,000
Beginning Net Worth	280,000
Gifts and Inheritances	10,000
Asset Appreciation	25,000
Withdrawals =	\$_____

7. Briefly describe three approaches to getting better financial information from your borrowers.

- a. _____
- b. _____
- c. _____

III. MULTIPLE CHOICE

1. Classification of a lease obligation as a capital lease (for financial statement purposes) is based on meeting one of four basic criteria. Which one of the following is not one of the qualifying criteria.
 - a. Lease transfers ownership at the end of the term.
 - b. Lease contains a purchase option based on something other than market value at the time of the option.
 - c. Lease term is greater than 75% of the economic life of the asset.
 - d. Sum of the lease payments exceeds the purchase price of the asset.

2. When people refer to ag balance sheets prepared on a “cost” basis versus a “market” basis, they are usually only referring to the method used for:
 - a. Valuing breeding livestock, machinery, real estate and buildings and improvements.
 - b. Accounting for inventories (LIFO, FIFO, etc.)
 - c. Classifying current and non-current liabilities.
 - d. Valuing personal assets.
 - e. Both a and b.

3. If an operation shows liquidity increases over a period of 2-3 years, which of the following could be the cause?
 - a. Profitable operation.
 - b. Unprofitable operation, but depreciation expense was greater than the sum of net loss, withdrawals, and term debt payments (assume no capital purchases).
 - c. Short-term debt (less than 1 year) refinanced over a 10-year period.
 - d. a and c.
 - e. a, b, and c.

4. Which of the following could cause an “unreconciled difference” between calculated net income and change in earned net worth?
 - a. Purchases and sales of capital assets are not correctly accounted for
 - b. Depreciation used for calculation of net income is different from that used on the balance sheets.
 - c. Inconsistently prepared balance sheets
 - d. b and c
 - e. a, b, and c.

5. You have completed an accrual analysis for a borrower and determined that net income for the year was \$50,000. Next, you reconcile family living as follows:

Beginning Net Worth (cost)	420,000
+ Net Income	50,000
- Ending Net Worth	<u>480,000</u>
= Family Living	(10,000)

Which of the following would be appropriate next steps?

- a. Congratulate the borrower for frugal living habits.
- b. Make sure that assets shown on the beginning balance sheet were not omitted from the ending balance sheet.
- c. Make sure that all non-farm wages, etc. were included on the income statement.
- d. Make sure that all liabilities shown on the beginning balance sheet are consistently shown on the ending balance sheet.
- e. Both b and c.
- f. Both c and d.

6. Assume that you have a X0 tax return that shows net income of \$8,000 (using your number for depreciation). You also have calculated an earned net worth change of \$43,000 based on balance sheets dated 2/15/X0 and 3/7/X1. Which of following are appropriate actions?
- Because the balance sheets represent almost exactly one year, calculate accrual adjustments to adjust the taxable net income to accrual and use that number as earnings.
 - Reconcile the \$35,000 difference, and use the \$43,000 as earnings.
 - Use the \$8,000 number because it is the most conservative.
 - Do your best to verify the balance sheets for completeness and accuracy. Based on you level of comfort with the verification, rely on the number your feel is most accurate.
7. A new applicant's balance sheet shows an investment in Acme Ltd. of \$12,000. As you ask questions about this investment, you learn that this represents a 1/3 interest a venture formed to build a mini-storage facility. When completed, the entity will have total assets of approximately \$150,000 and a long-term mortgage of \$124,000. What is the minimum analysis that you should do?
- Consolidate the partnership's balance sheet, reclassifying the other 2/3 of the entity to minority interest.
 - Add 1/3 of each line of the partnership's balance sheet to the borrower's balance sheet.
 - Review a projection, assess whether future contributions are planned or likely, and discuss plans for future expansion of the storage facility. Disclose your assessment of these issues, as well as the total amount of partnerships liability in your written analysis of the credit.
 - a and c.
 - b and c.

