

PROBLEM 14-1

The bonds were sold at a discount of \$5,651. Evidence of the discount is the January 1, 1997 book value of \$94,349, which is less than the maturity value of \$100,000 in 2006.

The interest allocation and bond discount amortization are based upon the effective interest method; this is evident from the increasing interest charge. Under the straight-line method the amount of interest would have been \$11,565.10 [$\$11,000 + (\$5,651 \div 10)$] for each year of the life of the bonds.

The stated rate is 11% ($\$11,000 \div \$100,000$). The effective rate is 12% ($\$11,322 \div \$94,349$).

| | | | |
|-----|------------------------------------|--------|---------|
| (d) | January 1, 1997 | | |
| | Cash | 94,349 | |
| | Discount on Bonds Payable | 5,651 | |
| | Bonds Payable | | 100,000 |
| | | | |
| (e) | December 31, 1997 | | |
| | Bond Interest Expense | 11,322 | |
| | Discount on Bonds Payable | | 322 |
| | Interest Payable | | 11,000 |
| | | | |
| (f) | January 1, 2004 (Interest Payment) | | |
| | Interest Payable | 11,000 | |
| | Cash | | 11,000 |
| | | | |
| | December 31, 2004 | | |
| | Bond Interest Expense | 11,712 | |
| | Discount on Bonds Payable | | 712 |
| | Interest Payable | | 11,000 |

PROBLEM 14-3

| | Cash Paid | Interest Expense | Amortization | Carrying Amount of Note |
|-------------|-----------|------------------|--------------|-------------------------|
| <u>Date</u> | | | | |
| 1/1/04 | | | | \$24,000 |
| 4/1/04 | \$300 | \$480 | \$180 | 24,180 |
| 7/1/04 | 300 | 484 | 184 | 24,364 |
| 10/1/05 | 300 | 487 | 187 | 24,551 |
| 1/1/05 | 300 | 491 | 191 | 24,742 |

(b) At this point, we see that the customer owes \$24,742, or \$742 more than at the beginning of the year.

(c) To earn 8% over the next two years the quarterly payments must be \$3,378 computed as follows: $\$24,742 \div 7.32548$ ($PVOA_{8,2\%}$) = \$3,378

(d)

| Date | Cash | Interest Expense | Amortization | Carrying Amount of Note |
|---------|---------|------------------|--------------|-------------------------|
| 1/1/05 | | | | \$24,742 |
| 4/1/05 | \$3,378 | \$495 | \$2,883 | 21,859 |
| 7/1/05 | 3,378 | 437 | 2,941 | 18,918 |
| 10/1/05 | 3,378 | 378 | 3,000 | 15,918 |
| 1/1/06 | 3,378 | 318 | 3,060 | 12,858 |
| 4/1/06 | 3,378 | 257 | 3,121 | 9,737 |
| 7/1/06 | 3,378 | 195 | 3,183 | 6,554 |
| 10/1/06 | 3,378 | 131 | 3,247 | 3,307 |
| 1/1/07 | 3,378 | 71 | 3,307 | 0 |

(e) The new sales gimmick may bring people into the showroom the first time but will drive them away once they learn of the amount of their year 2 and year 3 payments. Many will not have budgeted for these increases, and will be in a bind because they owe more on their car than it's worth. One should question the ethics of a dealer using this tactic.

PROBLEM 14-4

(a) Entry to record the issuance of the 11% bonds on December 18, 2004:

| | | |
|--------------------------|-----------|-----------|
| Cash | 6,120,000 | |
| Bonds Payable | | 6,000,000 |
| Premium on Bonds Payable | | 120,000 |

Entry to record the retirement of the 9% bonds on January 2, 2005:

| | | |
|--|-----------|-----------|
| Bonds Payable | 5,000,000 | |
| Loss on Redemption of Bonds | 300,000 | |
| Discount on Bonds Payable (\$250,000 X 10/25) | | 100,000 |
| Cash (\$5,000,000 x 104%) | | 5,200,000 |
| [The loss represents the excess of the cash paid (\$5,200,000) over the carrying amount of the bonds (\$4,900,000).] | | |

(b) The loss is reported as an ordinary loss under SFAS No. 145.

Note 1. Loss on Bond Redemption

The loss represents a loss of \$300,000 from the redemption and retirement of \$5,000,000 of the Company's outstanding bond issue due in 2015. The funds used to purchase the mortgage bonds represent a portion of the proceeds from the sale of \$6,000,000 of 11% debenture bonds issued December 18, 2004 and due in 2024.

PROBLEM 14-12

The entries for the issuance of the note on January 1, 2004:

The present value of the note is: $\$1,200,000 \times .68058 = \$816,700$ (Rounded by \$4).

Bostan Company (Debtor):

| | | |
|--------------------------|---------|-----------|
| Cash | 816,700 | |
| Discount on Note Payable | 383,300 | |
| Note Payable | | 1,200,000 |

National Organization Bank (Creditor):

| | | |
|-----------------------------|-----------|---------|
| Note Receivable | 1,200,000 | |
| Discount on Note Receivable | | 383,300 |
| Cash | | 816,700 |

The amortization schedule for this note is:

SCHEDULE FOR INTEREST AND DISCOUNT AMORTIZATION—
EFFECTIVE INTEREST METHOD
\$1,200,000 NOTE ISSUED TO YIELD 8%

| Date | Cash Interest | Effective Interest | Discount Amortized | Carrying Amount |
|----------|---------------|--------------------|--------------------|-----------------|
| 1/1/04 | | | | \$ 816,700 |
| 12/31/04 | \$0 | \$ 65,336* | \$ 65,336 | 882,036** |
| 12/31/05 | 0 | 70,563 | 70,563 | 952,599 |
| 12/31/05 | 0 | 76,208 | 76,208 | 1,028,807 |
| 12/31/06 | 0 | 82,305 | 82,305 | 1,111,112 |
| 12/31/06 | <u>0</u> | <u>88,888</u> | <u>88,888</u> | 1,200,000 |
| Total | <u>\$0</u> | <u>\$383,300</u> | <u>\$383,300</u> | |

* $\$816,700 \times 8\% = \$65,336$.

** $\$816,700 + \$65,336 = \$882,036$.

PROBLEM 14-12 (Continued)

The note can be considered to be impaired only when it is probable that, based on current information and events, National Organization Bank will be unable to collect all amounts due (both principal and interest) according to the contractual terms of the loan.

(d) The loss is computed as follows:

| | | |
|--|------------------------|------------------------------|
| Carrying amount of loan (12/31/05) | \$952,599 ^a | |
| Less: Present value of \$800,000 due in 3 years at 8% | | <u>(635,064)^b</u> |
| Loss due to impairment | | <u>\$317,535</u> |

^aSee amortization schedule from answer (b) above.

^b\$800,000 X .79383 = \$635,064.

December 31, 2002

Bostan Company (Debtor):

No entry.

National Organization Bank (Creditor):

| | | |
|---------------------------------|---------|---------|
| Bad Debt Expense | 317,535 | |
| Allowance for Doubtful Accounts | | 317,535 |

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| *PROBLEM 14-13 |
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It is a troubled debt restructuring.

| | | |
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| (b) 1. Hillary Inc.: No entry necessary. | | |
| 2. Bad Debt Expense | 158,208* | |
| Allowance for Doubtful Accounts | | 158,208 |

*Calculation of loss.

| | | |
|---|----------------|------------------|
| Pre-restructure carrying amount | | \$400,000 |
| Present value of restructured cash flows: | | |
| Present value of \$400,000 due in 10 years at 12%, interest payable annually (Table 6-2); (\$400,000 X .32197) | \$128,788 | |
| Present value of \$20,000 interest payable annually for 10 years at 12% (Table 6-4); (\$20,000 X 5.65022) | <u>113,004</u> | <u>(241,792)</u> |
| Creditor's loss on restructure | | <u>\$158,208</u> |

- (c) Statement No. 114 amends Statement No. 15 so losses are now calculated based upon the discounted present value of future cash flows; thus, this fairly approximates the economic loss to the lender. However, Statement No. 114 did not amend debtor accounting. The debtor's gain is still calculated under Statement No. 15 using the undiscounted cash flows. This does not fairly state the economic benefits derived by the debtor as a result of the restructuring.

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| *PROBLEM 14-14 |
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| | | | |
|-----|---|-------------------|-----------|
| (a) | On the books of Sandro Corporation: | | |
| | Notes payable | 3,000,000 | |
| | Common Stock | | 1,000,000 |
| | Additional Paid-in Capital | | 1,200,000 |
| | Gain on Restructuring of Debt | | 800,000 |
| | | | |
| | Fair value of equity | \$2,200,000 | |
| | Carrying amount of debt | <u>3,000,000</u> | |
| | Gain on restructuring of debt | <u>\$ 800,000</u> | |
| | On the books of Botticelli National Bank: | | |
| | Investment in Sandro | 2,200,000 | |
| | Allowance for Doubtful Accounts (or Bad Debt Expense) | 800,000 | |
| | Notes Receivable | | 3,000,000 |
| | | | |
| (b) | On the books of Sandro: | | |
| | Notes Payable | 3,000,000 | |
| | Land | | 1,950,000 |
| | Gain on Disposition of Real Estate | | 450,000 |
| | Gain on Restructuring of Debt | | 600,000 |
| | | | |
| | Fair value of land | \$2,400,000 | |
| | Book value of land | <u>1,950,000</u> | |
| | Gain on disposition of real estate | <u>\$ 450,000</u> | |
| | | | |
| | Note payable (carrying amount) | \$3,000,000 | |
| | Fair value of land | <u>2,400,000</u> | |
| | Gain on restructuring of debt | <u>\$ 600,000</u> | |

PROBLEM 14-14 (Continued)

| | | |
|---|-----------|---------------------|
| On the books of Botticelli National Bank: | | |
| Investment in Land | 2,400,000 | |
| Allowance for Doubtful Accounts (or Bad Debt Expense) | 600,000 | |
| Notes Receivable | | 3,000,000 |
| (c) On the books of Sandro: | | |
| No entry needed because aggregate cash flows equal the carrying amount. | | |
| Aggregate cash flows—principal | | <u>\$3,000,000</u> |
| Carrying amount | | <u>\$3,000,000</u> |
| On the books of Botticelli National Bank: | | |
| Bad Debt Expense | 746,040* | |
| Allowance for Doubtful Accounts | | 746,040 |
| *Calculation of loss: | | |
| Pre-restructure carrying amount | | \$3,000,000 |
| Less: Present value of restructured cash flows: | | |
| Present value of \$3,000,000 due in 3 years at 10%, interest payable annually (Table 6-2); (\$3,000,000 X .75132) | | <u>2,253,960</u> |
| Creditor's loss on restructure | | <u>\$ (746,040)</u> |
| (d) On the books of Sandro: | | |
| No entry needed because aggregate cash flows equal the carrying amount. | | |
| Aggregate cash flows | | |
| Principal | | \$2,500,000 |
| Interest (\$2,500,000 X 10% X 2) | | <u>500,000</u> |
| | | <u>\$3,000,000</u> |
| Carrying amount | | <u>\$3,000,000</u> |
| On the books of Botticelli National Bank: | | |
| Bad Debt Expense | 727,260* | |
| Allowance for Doubtful Accounts | | 727,260 |

PROBLEM 14-14 (Continued)

*Calculation of loss:

| | | |
|--|------------------|---------------------|
| Pre-restructure carrying amount | | \$3,000,000 |
| Present value of restructured cash flows: | | |
| Present value of \$2,500,000 due in 3 years at 10%, interest payable annually (Table 6-2); (\$2,500,000 X .75132) | \$1,878,300 | |
| Present value of \$250,000 interest payable annually for 3 years at 10%, (Table 6-4); (\$250,000 X 2.48685) | 621,713 | |
| Less first year payment: | | |
| Present value of \$250,000 interest due in 1 year at 10% (Table 6-2); (\$250,000 X .90909) | <u>(227,273)</u> | <u>(2,272,740)</u> |
| Creditor's loss on restructure | | <u>\$ (727,260)</u> |