

CHAPTER 14

Long-Term Liabilities

ASSIGNMENT CLASSIFICATION TABLE (BY TOPIC)

Topics	Questions	Brief Exercises	Exercises	Problems	Concepts for Analysis
1. Long-term liability; classification; definitions.	1, 10, 14, 20		1, 2	10, 11	1, 2, 3
2. Issuance of bonds; types of bonds.	2, 3, 4, 9, 10, 11	1, 2, 3, 4, 5, 6, 7	3, 4, 5, 6, 7, 8, 9, 10, 11	1, 2, 3, 4, 5, 6, 7, 10	1, 3, 6
3. Premium and discount; amortization schedules.	5, 6, 7, 8, 11	3, 4, 6, 7, 8, 10	4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15	1, 2, 3, 4, 5, 6, 7, 10, 11	1, 2, 3, 4
4. Retirement and refunding of debt.	12, 13	11	12, 13, 14, 15	2, 4, 5, 6, 7, 10	3, 4, 5
5. Imputation of interest on notes.	14, 15, 16, 17, 18	12, 13, 14, 15	16, 17, 18	8, 9	
6. Disclosures of long-term obligations.	19, 20, 21, 22	9	19	10	1, 3, 5
*7. Troubled debt restructuring.	23, 24, 25, 26, 27, 28, 29	16	20, 21, 22, 23, 24, 25, 26	13, 14, 15	
*8. Impairments.	24, 26		27, 28	12	

*This material is discussed in the Appendix to the Chapter.

ASSIGNMENT CLASSIFICATION TABLE (BY LEARNING OBJECTIVE)

Learning Objectives	Brief Exercises	Exercises	Problems
1. Describe the formal procedures associated with issuing long-term debt.			
2. Identify various types of bond issues.		1, 2	
3. Describe the accounting valuation for bonds at date of issuance.	1, 2, 3, 4, 5, 6, 7, 8	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15	1, 2, 3, 4, 5, 6, 7, 10
4. Apply the methods of bond discount and amortization.	2, 3, 4, 5, 6, 7, 8, 10	3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15	1, 2, 3, 4, 5, 6, 7, 10, 11
5. Describe the accounting for the extinguishment of debt.	11	12, 13, 14, 15	2, 4, 5, 6, 7, 10
6. Explain the accounting for long-term notes payable.	12, 13, 14, 15	16, 17, 18	8, 9
7. Explain the reporting of off-balance sheet financing arrangements.			
8. Indicate how to present and analyze long-term debt.	9	19	4, 10
*9. Describe the accounting for a loan impairment.	16	27, 28	12
*10. Describe the accounting for debt restructuring.		20, 21, 22, 23, 24, 25, 26	13, 14, 15

ASSIGNMENT CHARACTERISTICS TABLE

Item	Description	Level of Difficulty	Time (minutes)
E14-1	Classification of liabilities.	Simple	15–20
E14-2	Classification.	Simple	15–20
E14-3	Entries for bond transactions.	Simple	15–20
E14-4	Entries for bond transactions—straight-line.	Simple	15–20
E14-5	Entries for bond transactions—effective-interest.	Simple	15–20
E14-6	Amortization schedule—straight-line.	Simple	15–20
E14-7	Amortization schedule—effective-interest.	Simple	15–20
E14-8	Determine proper amounts in account balances.	Moderate	15–20
E14-9	Entries and questions for bond transactions.	Moderate	20–30
E14-10	Entries for bond transactions.	Moderate	15–20
E14-11	Information related to various bond issues.	Simple	20–30
E14-12	Entry for retirement of bond; bond issue costs.	Simple	15–20
E14-13	Entries for retirement and issuance of bonds.	Simple	15–20
E14-14	Entries for retirement and issuance of bonds.	Simple	12–16
E14-15	Entries for retirement and issuance of bonds.	Simple	10–15
E14-16	Entries for zero-interest-bearing debt.	Simple	15–20
E14-17	Imputation of interest.	Simple	15–20
E14-18	Imputation of interest with right.	Moderate	15–20
E14-19	Long-term debt disclosure.	Simple	10–15
*E14-20	Settlement of debt.	Moderate	15–20
*E14-21	Term modification without gain—debtor’s entries.	Moderate	20–30
*E14-22	Term modification without gain—creditor’s entries.	Moderate	25–30
*E14-23	Term modification with gain—debtor’s entries.	Moderate	25–30
*E14-24	Term modification with gain—creditor’s entries.	Moderate	20–30
*E14-25	Debtor/creditor entries for settlement of troubled debt.	Simple	15–20
*E14-26	Debtor/creditor entries for modification of troubled debt.	Moderate	20–25
*E14-27	Impairments.	Moderate	15–25
*E14-28	Impairments.	Moderate	15–25
P14-1	Analysis of amortization schedule and interest entries.	Simple	15–20
P14-2	Issuance and retirement of bonds.	Moderate	25–30
P14-3	Negative amortization.	Moderate	20–30
P14-4	Issuance and retirement of bonds; income statement presentation.	Simple	15–20
P14-5	Comprehensive bond problem.	Moderate	50–65
P14-6	Issuance of bonds between interest dates, straight-line, retirement.	Moderate	20–25
P14-7	Entries for life cycle of bonds.	Moderate	20–25
P14-8	Entries for zero-interest-bearing note.	Simple	15–25
P14-9	Entries for zero-interest-bearing note; payable in installments.	Moderate	20–25
P14-10	Comprehensive problem; issuance, classification, reporting.	Moderate	20–25
P14-11	Effective-interest method.	Moderate	40–50
*P14-12	Loan impairment entries.	Moderate	30–40

ASSIGNMENT CHARACTERISTICS TABLE (Continued)

Item	Description	Level of Difficulty	Time (minutes)
*P14-13	Debtor/creditor entries for continuation of troubled debt.	Moderate	15–25
*P14-14	Restructure of note under different circumstances.	Moderate	30–45
*P14-15	Debtor/creditor entries for continuation of troubled debt with new effective-interest.	Complex	40–50
CA14-1	Bond theory: balance sheet presentations, interest rate, premium.	Moderate	25–30
CA14-2	Various long-term liability conceptual issues.	Moderate	10–15
CA14-3	Bond theory: price, presentation, and retirement.	Moderate	15–25
CA14-4	Bond theory: amortization and gain or loss recognition.	Simple	20–25
CA14-5	Off-balance-sheet financing.	Moderate	20–30
CA14-6	Bond issue, ethics	Moderate	23–30

ANSWERS TO QUESTIONS

1.
 - (a) Funds might be obtained through long-term debt from the issuance of bonds, and from the signing of long-term notes and mortgages.
 - (b) A bond indenture is a contractual agreement (signed by the issuer of bonds) between the bond issuer and the bondholders. The bond indenture contains covenants or restrictions for the protection of the bondholders.
 - (c) A mortgage is a document which describes the security for a loan, indicates the conditions under which the mortgage becomes effective (that is, conditions of default), and describes the rights of the mortgagee under default relative to the security. The mortgage accompanies a formal promissory note and becomes effective only upon default of the note.
2. If the entire bond matures on a single date, the bonds are referred to as **term bonds**. **Mortgage bonds** are secured by real estate. **Collateral trust bonds** are secured by the securities of other corporations. **Debenture bonds** are unsecured. The interest payments for **income bonds** depend on the existence of operating income in the issuing company. **Callable bonds** may be called and retired by the issuer prior to maturity. **Registered bonds** are issued in the name of the owner and require surrender of the certificate and issuance of a new certificate to complete the sale. A **bearer** or **coupon bond** is not recorded in the name of the owner and may be transferred from one investor to another by mere delivery. **Convertible bonds** can be converted into other securities of the issuing corporation for a specified time after issuance. **Commodity-backed bonds** (also called asset-linked bonds) are redeemable in measures of a commodity. **Deep-discount bonds** (also called zero-interest bonds) are sold at a discount which provides the buyer's total interest payoff at maturity.
3.
 - (a) Yield rate—the rate of interest actually earned by the bondholders; it is synonymous with the effective and market rates.
 - (b) Nominal rate—the rate set by the party issuing the bonds and expressed as a percentage of the par value; it is synonymous with the stated rate.
 - (c) Stated rate—synonymous with nominal rate.
 - (d) Market rate—synonymous with yield rate and effective rate.
 - (e) Effective rate—synonymous with market rate and yield rate.
4.
 - (a) Maturity value—the face value of the bonds; the amount which is payable upon maturity.
 - (b) Face value—synonymous with par value and maturity value.
 - (c) Market value—the amount realizable upon sale.
 - (d) Par value—synonymous with maturity and face value.
5. A discount on bonds payable results when investors demand a rate of interest higher than the rate stated on the bonds. The investors are not satisfied with the nominal interest rate because they can earn a greater rate on alternative investments of equal risk. They refuse to pay par for the bonds and cannot change the nominal rate. However, by lowering the amount paid for the bonds, investors can alter the effective rate of interest.

A premium on bonds payable results from the opposite conditions. That is, when investors are satisfied with a rate of interest lower than the rate stated on the bonds, they are willing to pay more than the face value of the bonds in order to acquire them, thus reducing their effective rate of interest below the stated rate.
6. Discount (premium) on bonds payable should be reported in the balance sheet as a direct deduction from (addition to) the face amount of the bond. Both are liability valuation accounts.

Questions Chapter 14 (Continued)

7. Bond discount and bond premium may be amortized on a straight-line basis or on an effective-interest basis. The profession recommends the effective-interest method but permits the straight-line method when the results obtained are not materially different from the effective-interest method. The straight-line method results in an even or average allocation of the total interest over the life of the notes or bonds. The effective-interest method results in an increasing or decreasing amount of interest each period. This is because interest is based on the carrying amount of the bond issuance at the beginning of each period. The straight-line method results in a constant dollar amount of interest and an increasing or decreasing rate of interest over the life of the bonds. The effective-interest method results in an increasing or decreasing dollar amount of interest and a constant rate of interest over the life of the bonds.
8. The annual interest expense will decrease each period throughout the life of the bonds. Under the effective-interest method the interest expense each period is equal to the effective or yield interest rate times the book value of the bonds at the beginning of each interest period. When bonds are sold at a premium, their book value declines to face value over their life; therefore, the interest expense declines also.
9. Bond issuance costs according to **APB Opinion No. 21** should be debited to a deferred charge account for Unamortized Bond Issue Costs and amortized over the life of the issue, separately from but in a manner similar to that used for discount on bonds. The FASB in **SFAC No. 3** takes the position that debt issue costs can be treated as either an expense of the period in which the bonds are issued or a reduction of the related debt liability.
10. Treasury bonds should be shown on the balance sheet as a deduction from the bonds payable.
11. The call feature of a bond issue grants the issuer the privilege of purchasing, after a certain date at a stated price, outstanding bonds for the purpose of reducing indebtedness or taking advantage of lower interest rates. The call feature does not affect the amortization of bond discount or premium; because early redemption is not a certainty, life to maturity date should be used for amortization purposes.
12. It is sometimes desirable to reduce bond indebtedness in order to take advantage of lower prevailing interest rates. Also the company may not want to make a very large cash outlay all at once when the bonds mature.

Bond indebtedness may be reduced by either issuing bonds callable after a certain date and then calling some or all of them, or by purchasing bonds on the open market and then retiring them.

When a portion of bonds outstanding is going to be retired, it is necessary for the accountant to make sure any corresponding discount or premium is properly amortized.

13. Gains or losses from extinguishment of debt should be aggregated and reported in income.

For extinguishment of debt transactions disclosure is required of the following items:
 1. A description of the transactions, including the sources of any funds used to extinguish debt if it is practicable to identify the sources.
 2. The income tax effect in the period of extinguishment.
 3. The per share amount of the aggregate gain or loss net of related tax effect.
14. The entire arrangement must be evaluated and an appropriate interest rate imputed. This is done by (1) determining the fair value of the property, goods, or services exchanged or (2) determining the market value of the note, whichever is more clearly determinable.

Questions Chapter 14 (Continued)

15. If a note is issued for cash, the present value is assumed to be the cash proceeds. If a note is issued for noncash consideration, the present value of the note should be measured by the fair value of the property, goods, or services or by an amount that reasonably approximates the market value of the note (whichever is more clearly determinable).
16. When a debt instrument is exchanged in a bargained transaction entered into at arm's-length, the stated interest rate is presumed to be fair unless: (1) no interest rate is stated, or (2) the stated interest rate is unreasonable, or (3) the stated face amount of the debt instrument is materially different from the current sales price for the same or similar items or from the current market value of the debt instrument.
17. Imputed interest is the interest factor (a rate or amount) assumed or assigned which is different from the stated interest factor. It is necessary to impute an interest rate when the stated interest rate is presumed to be unfair. The imputed interest rate is used to establish the present value of the debt instrument by discounting, at that imputed rate, all future payments on the debt instrument. In imputing interest, the objective is to approximate the rate which would have resulted if an independent borrower and an independent lender had negotiated a similar transaction under comparable terms and conditions with the option to pay the cash price upon purchase or to give a note for the amount of the purchase which bears the prevailing rate of interest to maturity. In order to accomplish that objective, consideration must be given to (1) the credit standing of the issuer, (2) restrictive covenants, (3) collateral, (4) payment and other items pertaining to the debt, (5) the existing prime interest rate, and (6) the prevailing rates for similar instruments of issuers with similar credit ratings.
18. A **fixed-rate mortgage** is a note that requires payment of interest by the mortgagor at a rate that does not change during the life of the note. A **variable-rate mortgage** is a note that features an interest rate that fluctuates with the market rate; the variable rate generally is adjusted periodically as specified in the terms of the note and is usually limited in the amount of each change in the rate up or down and in the total change that can be made in the rate.
19. **FASB Statement No. 47** requires disclosure at the balance sheet date of future payments for sinking fund requirements and the maturity amounts of long-term debt during each of the next five years.
20. Off-balance-sheet-financing is an attempt to borrow monies in such a way that the obligations are not recorded. Reasons for off-balance sheet financing are:
 1. Many believe removing debt enhances the quality of the balance sheet and permits credit to be obtained more readily and at less cost.
 2. Loan covenants are less likely to be violated.
 3. The asset side of the balance sheet is understated because fair value is not used for many assets. As a result, not reporting certain debt transactions offsets the nonrecognition of fair values on certain assets.
21. Forms of off-balance-sheet financing include (1) investments in non-consolidated subsidiaries for which the parent is liable for the subsidiary debt; (2) use of special purpose entities (SPEs), which are used to borrow money for special projects (resulting in take-or-pay contracts; (3) operating leases, which when structured carefully give the company the benefits of ownership without reporting the liability for the lease payments.
22. In take-or-pay contracts, the outside party agrees to make specified minimum payments even if it does not take possession of the contracted goods or services. In through-put contracts, the outside party agrees to pay specified amounts in return for processing or transportation services rendered by the debtor, which is usually the owner of a manufacturing or transportation facility.

Questions Chapter 14 (Continued)

*23. Two different types of situations result with troubled debt: (1) Impairments, and (2) Restructurings. Restructurings can be further classified into:

- a. Settlements.
- b. Modification of terms.

When a debtor company runs into financial difficulty, creditors may recognize an impairment on a loan extended to that company. Subsequently, the creditor may modify the terms of the loan, or settles it on terms unfavorable to the creditor. In unusual cases, the creditor forces the debtor into bankruptcy in order to ensure the highest possible collection on the loan.

*24. A loan is considered impaired when it is probable that the creditor will be unable to collect all amounts due (both principal and interest) according to the contractual terms of the loan. If a loan is considered impaired, the loss due to impairment should be measured as the difference between the investment in the loan and the expected future cash flows discounted at the loan's historical effective-interest rate. The loss is recorded on the books of the creditor. The debtor would not be aware of the entry made by the creditor and would not make an entry until settlement or if a modification of items resulted.

*25. A transfer of noncash assets (real estate, receivables, or other assets) or the issuance of the debtor's stock can be used to settle a debt obligation in a troubled debt restructuring. In these situations, the noncash assets or equity interest given should be accounted for at their fair market value. The debtor is required to determine the excess of the carrying amount of the payable over the fair value of the assets or equity transferred (gain). Likewise, the creditor is required to determine the excess of the receivable over the fair value of those same assets or equity interests transferred (loss). The debtor recognizes a gain equal to the amount of the excess and the creditor normally would charge the excess (loss) against Allowance for Doubtful Accounts. In addition, the debtor recognizes a gain or loss on disposition of assets to the extent that the fair value of those assets differs from their carrying amount (book value).

*26. (a) The creditor will grant concessions in a troubled debt situation because it appears to be the more likely way to maximize recovery of the investment.

(b) The creditor might grant any one or a combination of the following concessions:

1. Reduce the face amount of the debt.
2. Accept noncash assets or equity interests in lieu of cash in settlement.
3. Reduce the stated interest rate.
4. Extend the maturity date of the face amount of the debt.
5. Reduce or defer any accrued interest.

(c) A loan is impaired when there is a reduction in the likelihood of collecting the interest and principal payments as originally scheduled. An impairment should be recorded by a creditor when it is "probable" that the payment will not be collected as scheduled. Debtors do not record impairments.

*27. When a loan is restructured, the creditor should calculate the loss due to restructuring by subtracting the present value of the restructured cash flows from the carrying value of the loan. Interest revenue is calculated at the original effective rate applied towards the new carrying value. The debtor will record a gain only if the undiscounted restructured cash flows are less than the carrying value of the loan. If a gain is recognized, subsequent payments will be all principal. There is no interest component. If the undiscounted cash flows exceed the carrying amount, no gain is recognized, and a new imputed interest rate must be calculated in order to recognize interest expense in subsequent periods.

Questions Chapter 14 (Continued)

- *28. "Accounting symmetry" between the entries recorded by the debtor and the creditor in a troubled debt restructuring means that there is a correspondence or agreement between the entries recorded by each party. Impairments are nonsymmetrical because, while the creditor records a loss, the debtor makes no entry at all. Troubled debt restructurings are nonsymmetrical because creditors calculate their loss using the discounted present value of future cash flows, while debtors calculate their gain using the undiscounted cash flows. The FASB chose to accept this nonsymmetric treatment rather than address debtor accounting because it feared that expansion of the scope of **FASB Statement No. 114** would further delay its issuance.
- *29. A transaction would be recorded as a troubled debt restructuring by only the debtor if the amount for which the liability is settled is less than its carrying amount on the debtor's books, but equal to or greater than the carrying amount on the creditor's books. In addition to the situation created by the use of discounted versus undiscounted cash flows by creditors and debtors, this situation can occur when a debtor or creditor has been substituted for one of the parties to the original transaction.

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 14-1

Present value of the principal		
\$300,000 X .37689		\$113,067
Present value of the interest payments		
\$13,500 X 12.46221		<u>168,240</u>
Issue price		<u>\$281,307</u>

BRIEF EXERCISE 14-2

(a)	Cash	200,000	
	Bonds Payable.....		200,000
(b)	Interest Expense	10,000	
	Cash (\$200,000 X 10% X 6/12).....		10,000
(c)	Interest Expense	10,000	
	Interest Payable.....		10,000

BRIEF EXERCISE 14-3

(a)	Cash (\$200,000 X 98%).....	196,000	
	Discount on Bonds Payable	4,000	
	Bonds Payable.....		200,000
(b)	Interest Expense	10,000	
	Cash (\$200,000 X 10% X 6/12).....		10,000
(c)	Interest Expense	10,000	
	Interest Payable.....		10,000
	Interest Expense	800	
	Discount on Bonds Payable.....		800
	(\$4,000 X 1/5 = \$800)		

BRIEF EXERCISE 14-4

(a)	Cash (\$200,000 X 103%).....	206,000	
	Bonds Payable		200,000
	Premium on Bonds Payable		6,000
(b)	Interest Expense.....	10,000	
	Cash (\$200,000 X 10% X 6/12)		10,000
(c)	Interest Expense.....	10,000	
	Interest Payable		10,000
	Premium on Bonds Payable	1,200	
	Interest Expense (\$6,000 X 1/5 = \$1,200)		1,200

BRIEF EXERCISE 14-5

(a)	Cash.....	510,000	
	Bonds Payable		500,000
	Interest Expense		10,000
	(\$500,000 X 6% X 4/12 = \$10,000)		
(b)	Interest Expense.....	15,000	
	Cash (\$500,000 X 6% X 6/12 = \$15,000).....		15,000
(c)	Interest Expense.....	15,000	
	Interest Payable		15,000

BRIEF EXERCISE 14-6

(a)	Cash.....	372,816	
	Discount on Bonds Payable	27,184	
	Bonds Payable		400,000
(b)	Interest Expense.....	14,913	
	Cash		14,000
	Discount on Bonds Payable		913
	(\$372,816 X 8% X 6/12 = \$14,913)		
	(\$400,000 X 7% X 6/12 = \$14,000)		

BRIEF EXERCISE 14-6 (Continued)

(c)	Interest Expense	14,949	
	Interest Payable.....		14,000
	Discount on Bonds Payable.....		949
	($\\$373,729 \times 8\% \times 6/12 = \\$14,949$)		

BRIEF EXERCISE 14-7

(a)	Cash	429,757	
	Bonds Payable.....		400,000
	Premium on Bonds Payable.....		29,757

(b)	Interest Expense	12,893	
	Premium on Bonds Payable	1,107	
	Cash		14,000
	($\\$429,757 \times 6\% \times 6/12 = \\$12,893$)		
	($\\$400,000 \times 7\% \times 6/12 = \\$14,000$)		

(c)	Interest Expense	12,860	
	Premium on Bonds Payable	1,140	
	Interest Payable.....		14,000
	($\\$428,650 \times 6\% \times 6/12 = \\$12,860$)		

BRIEF EXERCISE 14-8

	Interest Expense	4,298	
	Premium on Bonds Payable.....	369	
	Interest Payable		4,667
	($\\$429,757 \times 6\% \times 2/12 = \\$4,298$)		
	($\\$400,000 \times 7\% \times 2/12 = \\$4,667$)		

BRIEF EXERCISE 14-9

Current liabilities		<u>\$80,000</u>
Bond Interest Payable		
Long-term liabilities		\$2,000,000
Bonds Payable, due January 1, 2016		<u>98,000</u>
Less: Discount on Bonds Payable		<u>\$1,902,000</u>

BRIEF EXERCISE 14-10

Bond Issue Expense.....	18,000	
Unamortized Bond Issue Costs		18,000
(\$180,000 X 1/10)		

BRIEF EXERCISE 14-11

Bonds Payable	600,000	
Premium on Bonds Payable	15,000	
Unamortized Bond Issue Costs		5,250
Cash		594,000
Gain on Redemption of Bonds.....		15,750

BRIEF EXERCISE 14-12

(a) Cash.....	100,000	
Notes Payable.....		100,000
(b) Interest Expense.....	11,000	
Cash (\$100,000 X 11% = \$11,000).....		11,000

BRIEF EXERCISE 14-13

(a) Cash.....	31,776	
Discount on Notes Payable	18,224	
Notes Payable.....		50,000

BRIEF EXERCISE 14-13 (Continued)

(b)	Interest Expense	3,813	
	Discount on Notes Payable		3,813
	(\$31,776 X 12%)		

BRIEF EXERCISE 14-14

(a)	Computer.....	39,369	
	Discount on Notes Payable.....	10,631	
	Notes Payable		50,000
(b)	Interest Expense	4,724	
	Cash		2,500
	Discount on Notes Payable		2,224
	(\$39,369 X 12% = \$4,724)		
	(\$50,000 X 5% = \$2,500)		

BRIEF EXERCISE 14-15

Cash	50,000	
Discount on Notes Payable	18,224	
Notes Payable.....		50,000
Unearned Revenue		18,224
[\$50,000 – (\$50,000 X .63552) = \$18,224]		

***BRIEF EXERCISE 14-16**

Toni Braxton (Debtor): No Entry

National American Bank (Creditor):

Bad Debt Expense	225,000	
Allowance for Doubtful Accounts		225,000

SOLUTIONS TO EXERCISES

EXERCISE 14-1 (15–20 minutes)

- (a) Valuation account relating to the long-term liability, bonds payable (sometimes referred to as an adjunct account). The \$3,000 would continue to be reported as long-term.
- (b) Current liability if current assets are used to satisfy the debt.
- (c) Current liability, \$200,000; long-term liability, \$800,000.
- (d) Current liability.
- (e) Probably noncurrent, although if operating cycle is greater than one year and current assets are used, this item would be classified as current.
- (f) Current liability.
- (g) Current liability unless (a) a fund for liquidation has been accumulated which is not classified as a current asset or (b) arrangements have been made for refinancing.
- (h) Current liability.
- (i) Current liability.

EXERCISE 14-2 (15–20 minutes)

- (a) Discount on Bonds Payable—Contra account to bonds payable on balance sheet.
- (b) Interest expense (credit balance)—Reclassify to interest payable on balance sheet.
- (c) Unamortized Bond Issue Costs—Classified as “Other Assets” on balance sheet.
- (d) Gain on repurchase of debt—Classify as part of other gains and losses on the income statement.
- (e) Mortgage payable—Classify one-third as current liability and the remainder as long-term liability on balance sheet.

EXERCISE 14-2 (Continued)

- (f) **Debenture bonds—Classify as long-term liability on balance sheet.**
- (g) **Notes payable—Classify as long-term liability on balance sheet.**
- (h) **Premium on bonds payable—Classify as adjunct account to Bonds Payable on balance sheet.**
- (i) **Treasury bonds—Classify as contra account to bonds payable on balance sheet.**
- (j) **Income bonds payable—Classify as long-term liability on balance sheet.**

EXERCISE 14-3 (15–20 minutes)

1. Simon Company:

(a)	1/1/07	Cash	200,000	
		Bonds Payable		200,000
(b)	7/1/07	Bond Interest Expense.....	4,500	
		(\$200,000 X 9% X 3/12)		
		Cash.....		4,500
(c)	12/31/07	Bond Interest Expense.....	4,500	
		Interest Payable		4,500

2. GarFunkle Company:

(a)	6/1/07	Cash	105,000	
		Bonds Payable		100,000
		Bond Interest Expense.....		5,000
		(\$100,000 X 12% X 5/12)		
(b)	7/1/07	Bond Interest Expense.....	6,000	
		Cash.....		6,000
		(\$100,000 X 12% X 6/12)		

EXERCISE 14-3 (Continued)

(c)	12/31/07	Bond Interest Expense	6,000	
		Interest Payable.....		6,000

Note to instructor: Some students may credit Interest Payable on 6/1/07. If they do so, the entry on 7/1/07 will have a debit to Interest Payable for \$5,000 and a debit to Bond Interest Expense for \$1,000.

EXERCISE 14-4 (15–20 minutes)

(a)	1/1/08	Cash (\$600,000 X 102%)	612,000	
		Bonds Payable.....		600,000
		Premium on Bonds Payable		12,000
(b)	7/1/08	Bond Interest Expense	29,700	
		Premium on Bonds Payable	300	
		(\$12,000 ÷ 40)		
		Cash		30,000
		(\$600,000 X 10% X 6/12)		
(c)	12/31/08	Bond Interest Expense	29,700	
		Premium on Bonds Payable	300	
		Interest Payable.....		30,000

EXERCISE 14-5 (15–20 minutes)

(a)	1/1/08	Cash (\$600,000 X 102%)	612,000	
		Bonds Payable		600,000
		Premium on Bonds Payable.....		12,000
(b)	7/1/08	Bond Interest Expense.....	29,898	
		(\$612,000 X 9.7705% X 1/2)		
		Premium on Bonds Payable.....	102	
		Cash.....		30,000
		(\$600,000 X 10% X 6/12)		

EXERCISE 14-5 (Continued)

(c)	12/31/08	Bond Interest Expense.....	29,893	
		(\$611,898 X 9.7705% X 1/2)		
		Premium on Bonds Payable.....	107	
		Interest Payable		30,000
Carrying amount of bonds at July 1, 2008:				
		Carrying amount of bonds at January 1, 2008		\$612,000
		Amortization of bond premium		
		(\$300,000 – \$29,898)		<u>(102)</u>
		Carrying amount of bonds at July 1, 2008		<u>\$611,898</u>

EXERCISE 14-6 (15–20 minutes)

**Schedule of Discount Amortization
Straight-Line Method**

Year	Cash Paid	Interest Expense	Discount Amortized	Carrying Amount of Bonds
Jan. 1, 2007				\$1,855,816.00
Dec. 31, 2007	\$200,000	\$228,836.80	\$28,836.80*	1,884,652.80
Dec. 31, 2008	200,000	228,836.80	28,836.80	1,913,489.60
Dec. 31, 2009	200,000	228,836.80	28,836.80	1,942,326.40
Dec. 31, 2010	200,000	228,836.80	28,836.80	1,971,163.20
Dec. 31, 2011	200,000	228,836.80	28,836.80	2,000,000.00

*\$28,836.80 = (\$2,000,000 – \$1,855,816) ÷ 5.

EXERCISE 14-7 (15–20 minutes)

The effective-interest or yield rate is 12%. It is determined through trial and error using Table 6-2 for the discounted value of the principal (\$1,134,860) and Table 6-4 for the discounted value of the interest (\$720,956); \$1,134,860 plus \$720,956 equals the proceeds of \$1,855,816. (A financial calculator may be used to determine the rate of 12%.)

EXERCISE 14-7 (Continued)

**Schedule of Discount Amortization
Effective-Interest Method (12%)**

Year	Cash Paid	Interest Expense	Discount Amortized	Carrying Amount of Bonds
(1)	(2)	(3)	(4)	
Jan. 1, 2007				\$1,855,816.00
Dec. 31, 2007	\$200,000	\$222,697.92*	\$22,697.92	1,878,513.92
Dec. 31, 2008	200,000	225,421.67	25,421.67	1,903,935.59
Dec. 31, 2009	200,000	228,472.27	28,472.27	1,932,407.86
Dec. 31, 2010	200,000	231,888.94	31,888.94	1,964,296.80
Dec. 31, 2011	200,000	235,703.20**	35,703.20	2,000,000.00

*\$222,697.92 = \$1,855,816 X .12.

**Rounded.

EXERCISE 14-8 (15–20 minutes)

(a) Printing and engraving costs of bonds	\$12,000
Legal fees	49,000
Commissions paid to underwriter	<u>60,000</u>
Amount to be reported as Unamortized Bond Issue Costs	<u>\$121,000</u>

The Unamortized Bond Issue Costs, \$121,000, should be reported as a deferred charge in the Other Assets section on the balance sheet.

(b) Interest paid for the period from January 1 (July 1) to June 30 (December 31), 2007; \$2,000,000 X 10% X 6/12	\$100,000
Less: Premium amortization for the period from January 1 (July 1) to June 30 (December 31), 2007 [(\$2,000,000 X 1.04) – \$2,000,000] ÷ 10 X 6/12	<u>4,000</u>
Interest expense to be recorded on July 1 (December 31), 2007	<u>\$ 96,000</u>

EXERCISE 14-8 (Continued)

(c) Carrying amount of bonds on June 30, 2007	\$562,500
Effective-interest rate for the period from June 30 to October 31, 2007 (.10 X 4/12)	<u>X.033333</u>
Interest expense to be recorded on October 31, 2007	<u>\$ 18,750</u>

EXERCISE 14-9 (20–30 minutes)

(a) 1.	June 30, 2008	
	Cash	4,300,920.00
	Bonds Payable	4,000,000.00
	Premium on Bonds Payable	300,920.00
2.	December 31, 2008	
	Bond Interest Expense.....	258,055.20
	(\$4,300,920.00 X 12% X 6/12)	
	Premium on Bonds Payable.....	1,944.80
	Cash.....	260,000.00
	(\$4,000,000 X 13% X 6/12)	
3.	June 30, 2009	
	Bond Interest Expense.....	257,938.51
	[(\$4,300,920.00 – \$1,944.80)	
	X 12% X 6/12]	
	Premium on Bonds Payable.....	2,061.49
	Cash.....	260,000.00
4.	December 31, 2009	
	Bond Interest Expense.....	257,814.82
	[(\$4,300,920.00 – \$1,944.80 –	
	\$2,061.49) X 12% X 6/12]	
	Premium on Bonds Payable.....	2,185.18
	Cash.....	260,000.00

EXERCISE 14-9 (Continued)

(b) Long-term Liabilities:

Bonds payable, 13% (due on June 30, 2028)	\$4,000,000.00
Premium on Bonds Payable*	<u>294,728.53</u>
Book value of bonds payable	<u>\$4,294,728.53</u>

$$*(\$4,300,920.00 - \$4,000,000) - (\$1,944.80 + \$2,061.49 + \$2,185.18) = \$294,728.53$$

- (c) 1. Interest expense for the period from January 1 to June 30, 2009 from (a) 3. \$257,938.51
- Interest expense for the period from July 1 to December 31, 2009 from (a) 4. 257,814.82
- Amount of bond interest expense reported for 2009 \$515,753.33
2. The amount of bond interest expense reported in 2009 will be greater than the amount that would be reported if the straight-line method of amortization were used. Under the straight-line method, the amortization of bond premium is \$15,046 ($\$300,920/20$). Bond interest expense for 2009 is the difference between the amortized premium, \$15,046, and the actual interest paid, \$520,000 ($\$4,000,000 \times 13\%$). Thus, the amount of bond interest expense is \$504,954, which is smaller than the bond interest expense under the effective-interest method.
3. Total interest to be paid for the bond ($\$4,000,000 \times 13\% \times 20$) \$10,400,000
- Principal due in 2028 4,000,000
- Total cash outlays for the bond 14,400,000
- Cash received at issuance of the bond (4,300,920)
- Total cost of borrowing over the life of the bond \$10,099,080
4. They will be the same.

EXERCISE 14-10 (15–20 minutes)

(a) January 1, 2007

Cash.....	537,907.37	
Premium on Bonds Payable		37,907.37
Bonds Payable		500,000.00

(b) **Schedule of Interest Expense and Bond Premium Amortization**
Effective-Interest Method
12% Bonds Sold to Yield 10%

Date	Cash Paid	Interest Expense	Premium Amortized	Carrying Amount of Bonds
1/1/07	–	–	–	\$537,907.37
12/31/07	\$60,000.00	\$53,790.74	\$6,209.26	531,698.11
12/31/08	60,000.00	53,169.81	6,830.19	524,867.92
12/31/09	60,000.00	52,486.79	7,513.21	517,354.71

(c) December 31, 2007

Bond Interest Expense.....	53,790.74	
Premium on Bonds Payable	6,209.26	
Cash		60,000.00

(d) December 31, 2009

Bond Interest Expense.....	52,486.79	
Premium on Bonds Payable	7,513.21	
Cash		60,000.00

EXERCISE 14-11 (20–30 minutes)

	Unsecured Bonds	Zero-Coupon Bonds	Mortgage Bonds
(1) Maturity value	\$10,000,000	\$25,000,000	\$20,000,000
(2) Number of interest periods	40	10	10
(3) Stated rate per period	3.75% ($\frac{15\%}{4}$)	0	10%
(4) Effective rate per period	3% ($\frac{12\%}{4}$)	12%	12%
(5) Payment amount per period	\$375,000 ^(a)	0	\$2,000,000 ^(b)
(6) Present value	\$11,733,639 ^(c)	\$8,049,250 ^(d)	\$17,739,840 ^(e)

^(a)\$10,000,000 X 15% X 1/4 = \$375,000

^(b)\$20,000,000 X 10% = \$2,000,000

^(c)Present value of an annuity of \$375,000 discounted at 3% per period for 40 periods (\$375,000 X 23.11477) = \$ 8,668,039
 Present value of \$10,000,000 discounted at 3% per period for 40 periods (\$10,000,000 X .30656) = 3,065,600
\$11,733,639

^(d)Present value of \$25,000,000 discounted at 12% for 10 periods (\$25,000,000 X .32197) = \$ 8,049,250

^(e)Present value of an annuity of \$2,000,000 discounted at 12% for 10 periods (\$2,000,000 X 5.65022) = \$11,300,440
 Present value of \$20,000,000 discounted at 12% for 10 years (\$20,000,000 X .32197) 6,439,400
\$17,739,840

EXERCISE 14-12 (15–20 minutes)

Reacquisition price (\$900,000 X 101%)		\$909,000
Less: Net carrying amount of bonds redeemed:		
Par value	\$900,000	
Unamortized discount	(13,500)	
Unamortized bond issue costs	<u>(7,200)</u>	<u>879,300</u>
Loss on redemption		<u>\$ 29,700</u>

Calculation of unamortized discount—

Original amount of discount:
 $\$900,000 \times 3\% = \$27,000$
 $\$27,000/10 = \$2,700$ amortization per year
 Amount of discount unamortized:
 $\$2,700 \times 5 = \$13,500$

Calculation of unamortized issue costs—

Original amount of costs:
 $\$24,000 \times \$900,000/\$1,500,000 = \$14,400$
 $\$14,400/10 = \$1,440$ amortization per year
 Amount of costs unamortized:
 $\$1,440 \times 5 = \$7,200$

January 2, 2007

Bonds Payable	900,000	
Loss on Redemption of Bonds	29,700	
Unamortized Bond Issue Costs.....		7,200
Discount on Bonds Payable		13,500
Cash.....		909,000

EXERCISE 14-13 (15–20 minutes)

Cash	8,820,000	
Discount on Bonds Payable (.02 X \$9,000,000) ...	180,000	
Bonds Payable		9,000,000
(To record issuance of 10% bonds)		

EXERCISE 14-13 (Continued)

Bonds Payable	6,000,000	
Loss on Redemption of Bonds	270,000	
Cash (\$6,000,000 X 1.02).....		6,120,000
Discount on Bonds Payable.....		120,000
Unamortized Bond Issue Costs		30,000
(To record retirement of 11% bonds)		
 Reacquisition price		 \$6,120,000
Less: Net carrying amount of bonds redeemed:		
Par value	\$6,000,000	
Unamortized bond discount.....	(120,000)	
Unamortized bond issue costs	<u>(30,000)</u>	<u>5,850,000</u>
Loss on redemption.....		<u>\$ 270,000</u>

EXERCISE 14-14 (12–16 minutes)

(a)	June 30, 2008		
	Bonds Payable.....	800,000	
	Loss on Redemption of Bonds	40,800	
	Discount on Bonds Payable		8,800
	Cash.....		832,000
	 Reacquisition price (\$800,000 X 104%)		 \$832,000
	Net carrying amount of bonds redeemed:		
	Par value	\$800,000	
	Unamortized discount	<u>(8,800)</u>	<u>(791,200)</u>
	(.02 X \$800,000 X 11/20)		
	Loss on redemption.....		<u>\$ 40,800</u>
	 Cash (\$1,000,000 X 102%).....	 1,020,000	
	Premium on Bonds Payable		20,000
	Bonds Payable		1,000,000
(b)	December 31, 2008		
	Bond Interest Expense.....	49,500	
	Premium on Bonds Payable.....	500*	
	Cash.....		50,000**

*(1/40 X \$20,000 = \$500)

**(.05 X \$1,000,000 = \$50,000)

EXERCISE 14-15 (10–15 minutes)

Reacquisition price (\$300,000 X 104%).....		\$312,000
Less: Net carrying amount of bonds redeemed:		
Par value.....	\$300,000	
Unamortized discount.....	<u>(10,000)</u>	<u>290,000</u>
Loss on redemption		<u>\$ 22,000</u>

Bonds Payable.....	300,000	
Loss on Redemption of Bonds	22,000	
Discount on Bonds Payable		10,000
Cash.....		312,000
(To record redemption of bonds payable)		

Cash	306,000	
Unamortized Bond Issue Costs	3,000	
Premium on Bonds Payable		9,000
Bonds Payable		300,000
(To record issuance of new bonds)		

EXERCISE 14-16 (15–20 minutes)

(a) 1.	January 1, 2008	
Land	200,000.00	
Discount on Notes Payable	137,012.00	
Notes Payable.....		337,012.00
(The \$200,000 capitalized land cost represents the present value of the note discounted for five years at 11%.)		
2. Equipment	185,674.30	
Discount on Notes Payable	64,325.70*	
Notes Payable.....		250,000.00

EXERCISE 14-16 (Continued)

***Computation of the discount on notes payable:**

Maturity value		\$250,000.00
Present value of \$250,000 due in 8 years at 11%—\$250,000 X .43393	\$108,482.50	
Present value of \$15,000 payable annually for 8 years at 11% annually—\$15,000 X 5.14612	<u>77,191.80</u>	
Present value of the note		<u>(185,674.30)</u>
Discount		<u>\$ 64,325.70</u>

(b) 1. Interest Expense	22,000.00	
Discount on Notes Payable		22,000.00
(\$200,000 X .11)		
2. Interest Expense	20,424.17	
(\$185,674.30 X .11)		
Discount on Notes Payable		5,424.17
Cash (\$250,000 X .06).....		15,000.00

EXERCISE 14-17 (15–20 minutes)

(a) Face value of the zero-interest-bearing note	\$550,000
Discounting factor (12% for 3 periods)	<u>X .71178</u>
Amount to be recorded for the land at January 1, 2008	<u>\$391,479</u>

Carrying value of the note at January 1, 2008	\$391,479
Applicable interest rate (12%)	<u>X .12</u>
Interest expense to be reported in 2008	<u>\$ 46,977</u>

(b)	January 1, 2008		
Cash	5,000,000		
Discount on Notes Payable	1,584,950		
Notes Payable		5,000,000	
Unearned Revenue		1,584,950*	

*\$5,000,000 – (\$5,000,000 X .68301) = \$1,584,950

EXERCISE 14-17 (Continued)

Carrying value of the note at January 1, 2008	\$3,415,050**
Applicable interest rate (10%)	X <u>.10</u>
Interest expense to be reported for 2008	<u>\$ 341,505</u>

**\$5,000,000 – \$1,584,950 = \$3,415,050

EXERCISE 14-18 (15–20 minutes)

(a) Cash.....	400,000	
Discount on Notes Payable.....	82,468	
Notes Payable.....		400,000
Unearned Revenue.....		82,468
(\$400,000 – \$317,532)		
Face value	\$400,000	
Present value of 1 at 8%		
for 3 years	X <u>.79383</u>	
Present value	<u>\$317,532</u>	
(b) Interest Expense (\$317,532 X 8%).....	25,403	
Discount on Notes Payable.....		25,403
Unearned Revenue (\$82,468 ÷ 3)	27,489	
Sales		27,489

EXERCISE 14-19 (10–15 minutes)

At December 31, 2006, disclosures would be as follows:

Maturities and sinking fund requirements on long-term debt are as follows:

2007	\$	0	
2008		3,500,000	
2009		5,500,000	(\$2,000,000 + \$3,500,000)
2010		9,500,000	(\$6,000,000 + \$3,500,000)
2011		3,500,000	

*EXERCISE 14-20 (15–20 minutes)

(a) Transfer of property on December 31, 2007:

Larisa Nieland Company (Debtor):

Note Payable.....	200,000	
Interest Payable.....	18,000	
Accumulated Depreciation—Machine.....	221,000	
Machine.....		390,000
Gain on Disposition of Machine.....		21,000 ^a
Gain on Debt Restructuring.....		28,000 ^b

^a\$190,000 – (\$390,000 – \$221,000) = \$21,000.

^b(\$200,000 + \$18,000) – \$190,000 = \$28,000.

First State Bank (Creditor):

Machine.....	190,000	
Allowance for Doubtful Accounts.....	28,000	
Note Receivable.....		200,000
Interest Receivable.....		18,000

(b) “Gain on Machine Disposition” and the “Gain on Debt Restructuring” should be reported as an ordinary gain in the income statement in accordance with *APB Opinion No. 30* and *SFAS No. 145*.

***EXERCISE 14-20 (Continued)**

(c) Granting of equity interest on December 31, 2007:

Larisa Nieland Company (Debtor):

Note Payable	200,000	
Interest Payable	18,000	
Common Stock.....		150,000
Additional Paid-in Capital.....		40,000
Gain on Debt Restructuring.....		28,000

First State Bank (Creditor):

Investment (Trading)	190,000	
Allowance for Doubtful Accounts.....	28,000	
Note Receivable		200,000
Interest Receivable		18,000

***EXERCISE 14-21 (20–30 minutes)**

- (a) No. The gain recorded by Bradtke is not equal to the loss recorded by Firststar Bank under the debt restructuring agreement. (You will see why this happens in the following four exercises.) In response to this “accounting asymmetry” treatment, the FASB stated that *Statement No. 114* does not address debtor accounting because the FASB was concerned that expansion of the scope of the statement would delay its issuance.
- (b) No. There is no gain under the modified terms because the total future cash flows after restructuring exceed the total pre-restructuring carrying amount of the note (principal):

Total future cash flows after restructuring are:

Principal	\$1,600,000
Interest (\$1,600,000 X 10% X 3)	<u>480,000</u>
	<u>\$2,080,000</u>

**Total pre-restructuring carrying amount of note
(principal):**

\$2,000,000

***EXERCISE 14-21 (Continued)**

(c) The interest payment schedule is prepared as follows:

BRADTKE COMPANY				
INTEREST PAYMENT SCHEDULE AFTER DEBT RESTRUCTURING				
EFFECTIVE-INTEREST RATE 1.4276%				
<u>Date</u>	<u>Cash Paid (10%)</u>	<u>Interest Expense (1.4276%)</u>	<u>Reduction of Carrying Amount</u>	<u>Carrying Amount of Note</u>
12/31/07				\$2,000,000
12/31/08	\$160,000 ^a	\$28,552 ^b	\$131,448 ^c	1,868,552
12/31/09	160,000	26,675	133,325	1,735,227
12/31/10	<u>160,000</u>	<u>24,773^d</u>	<u>135,227</u>	1,600,000
Total	<u>\$480,000</u>	<u>\$80,000</u>	<u>\$400,000</u>	

^a\$1,600,000 X 10% = \$160,000.

^b\$2,000,000 X 1.4276% = \$28,552.

^c\$160,000 – \$28,552 = \$131,448.

^dAdjusts \$1 due to rounding.

(d) Interest payment entry for Bradtke Company is:

December 31, 2009		
Note Payable	133,325	
Interest Expense	26,675	
Cash.....		160,000

(e) The payment entry at maturity is:

January 1, 2011		
Note Payable	1,600,000	
Cash.....		1,600,000

***EXERCISE 14-22 (25–30 minutes)**

(a) The Firstar Bank should use the historical interest rate of 12% to calculate the loss.

(b) The loss is computed as follows:

Pre-restructuring carrying amount of note		\$2,000,000
Less: Present value of restructured future cash flows:		
Present value of principal \$1,600,000 due in 3 years at 12%	\$1,138,848 ^a	
Present value of interest \$160,000 paid annually for 3 years at 12%	<u>384,293^b</u>	<u>1,523,141</u>
Loss on debt restructuring		<u>\$ 476,859</u>

^a\$1,600,000 X .71178 = \$1,138,848.

^b\$160,000 X 2.40183 = \$384,293.

December 31, 2007

Bad Debt Expense.....	476,859	
Allowance for Doubtful Accounts.....		476,859

(c) The interest receipt schedule is prepared as follows:

**FIRSTAR BANK
INTEREST RECEIPT SCHEDULE AFTER DEBT RESTRUCTURING
EFFECTIVE-INTEREST RATE 12%**

Date	Cash Received (10%)	Interest Revenue (12%)	Increase in Carrying Amount	Carrying Amount of Note
12/31/07				\$1,523,141
12/31/08	\$160,000 ^a	\$182,777 ^b	\$22,777 ^c	1,545,918
12/31/09	160,000	185,510	25,510	1,571,428
12/31/10	<u>160,000</u>	<u>188,572</u>	<u>28,572</u>	1,600,000
Total	<u>\$480,000</u>	<u>\$556,859</u>	<u>\$76,859</u>	

^a\$1,600,000 X 10% = \$160,000.

^b\$1,523,141 X 12% = \$182,777.

^c\$182,777 – \$160,000 = \$22,777.

***EXERCISE 14-22 (Continued)**

(d) Interest receipt entry for Firststar Bank is:

December 31, 2009		
Cash	160,000	
Allowance for Doubtful Accounts	25,510	
Interest Revenue		185,510

(e) The receipt entry at maturity is:

January 1, 2011		
Cash	1,600,000	
Allowance for Doubtful Accounts	400,000	
Note Receivable.....		2,000,000

***EXERCISE 14-23 (25–30 minutes)**

(a) Yes. Bradtke Company can record a gain under this term modification. The gain is calculated as follows:

Total future cash flows after restructuring are:	
Principal	\$1,300,000
Interest (\$1,300,000 X 10% X 3)	<u>390,000</u>
	<u>\$1,690,000</u>
Total pre-restructuring carrying amount of note (principal):	\$2,000,000

Therefore, the gain = \$2,000,000 – \$1,690,000 = \$310,000.

(b) The entry to record the gain on December 31, 2007:

Note Payable.....	310,000	
Gain on Debt Restructuring		310,000

(c) Because the new carrying value of the note (\$2,000,000 – \$310,000 = \$1,690,000) equals the sum of the undiscounted future cash flows (\$1,300,000 principal + \$390,000 interest = \$1,690,000), the imputed interest rate is 0%. Consequently, all the future cash flows reduce the principal balance and no interest expense is recognized.

***EXERCISE 14-23 (Continued)**

(d) The interest payment schedule is prepared as follows:

**BRADTKE COMPANY
INTEREST PAYMENT SCHEDULE AFTER DEBT RESTRUCTURING
EFFECTIVE-INTEREST RATE 0%**

Date	Cash Paid (10%)	Interest Expense (0%)	Reduction of Carrying Amount	Carrying Amount of Note
12/31/07				\$1,690,000
12/31/08	\$130,000 ^a	\$0	\$130,000	1,560,000 ^b
12/31/09	130,000	0	130,000	1,430,000
12/31/10	<u>130,000</u>	<u>0</u>	<u>130,000</u>	1,300,000
Total	<u>\$390,000</u>	<u>\$0</u>	<u>\$390,000</u>	

^a\$1,300,000 X 10% = \$130,000.

^b\$1,690,000 – \$130,000 = \$1,560,000.

(e) Cash interest payment entries for Bradtke Company are:

December 31, 2008, 2009, and 2010

Note Payable	130,000	
Cash		130,000

(f) The payment entry at maturity is:

January 1, 2011

Note Payable	1,300,000	
Cash		1,300,000

***EXERCISE 14-24 (20–30 minutes)**

(a) The loss can be calculated as follows:

Pre-restructuring carrying amount of note		\$2,000,000
Less: Present value of restructured future cash flows:		
Present value of principal \$1,300,000 due in 3 years at 12%	\$925,314 ^a	
Present value of interest \$130,000 paid annually for 3 years at 12%	<u>312,238^b</u>	<u>1,237,552</u>
Loss on debt restructuring		<u>\$ 762,448</u>

^a\$1,300,000 X .71178 = \$925,314

^b\$130,000 X 2.40183 = \$312,238

December 31, 2007

Bad Debt Expense	762,448	
Allowance for Doubtful Accounts		762,448

(b) The interest receipt schedule is prepared as follows:

**FIRSTAR BANK
INTEREST RECEIPT SCHEDULE AFTER DEBT RESTRUCTURING
EFFECTIVE-INTEREST RATE 12%**

Date	Cash Received (10%)	Interest Revenue (12%)	Increase in Carrying Amount	Carrying Amount of Note
12/31/07				\$1,237,552
12/31/08	\$130,000 ^a	\$148,506 ^b	\$18,506 ^c	1,256,058
12/31/09	130,000	150,727	20,727	1,276,785
12/31/10	<u>130,000</u>	<u>153,215</u>	<u>23,215</u>	1,300,000
Total	<u>\$390,000</u>	<u>\$452,448</u>	<u>\$62,448</u>	

^a\$1,300,000 X 10% = \$130,000.

^b\$1,237,552 X 12% = \$148,506.

^c\$148,506 – \$130,000 = \$18,506.

***EXERCISE 14-24 (Continued)**

(c) Interest receipt entries for Firststar Bank are:

December 31, 2008		
Cash.....	130,000	
Allowance for Doubtful Accounts.....	18,506	
Interest Revenue.....		148,506
December 31, 2009		
Cash.....	130,000	
Allowance for Doubtful Accounts.....	20,727	
Interest Revenue.....		150,727
December 31, 2010		
Cash.....	130,000	
Allowance for Doubtful Accounts.....	23,215	
Interest Revenue.....		153,215

(d) The receipt entry at maturity is:

January 1, 2011		
Cash.....	1,300,000	
Allowance for Doubtful Accounts.....	700,000	
Note Receivable		2,000,000

***EXERCISE 14-25 (15–20 minutes)**

(a) Langrova Co.'s entry:

Note Payable.....	199,800	
Property		80,000
Gain on Property Disposition.....		40,000
(\$120,000 – \$80,000)		
Gain on Restructuring		79,800*

*\$199,800 – \$120,000

***EXERCISE 14-25 (Continued)**

(b) Fernandez Inc. entry:

Property	120,000	
Allowance for Doubtful Accounts	79,800	
(or Bad Debt Expense).....		
Note Receivable.....		199,800

***EXERCISE 14-26 (20–25 minutes)**

Because the carrying amount of the debt, \$225,000 exceeds the total future cash flows \$220,000 [$\$200,000 + (\$10,000 \times 2)$], a gain and a loss are recognized and no interest is recorded by the debtor.

(a) Graf Corp.'s entries:

2007 Note Payable.....	5,000	
Gain on Restructuring.....		5,000
2008 Note Payable.....	10,000	
Cash (5% X \$200,000)		10,000
2009 Note Payable.....	210,000	
Cash		210,000
[$\$200,000 + (5\% \times \$200,000)$]		

(b) First Trust's entry on December 31, 2007:

Bad Debt Expense	48,661	
Allowance for Doubtful Accounts		48,661
Pre-restructure carrying amount		\$225,000
Present value of restructured cash flows:		
Present value of \$200,000 due in 2 years at 12%, interest payable annually (Table 6-2); ($200,000 \times .79719$)	\$159,438	
Present value of \$10,000 interest payable annually for 2 years at 12% (Table 6-4); ($\$10,000 \times 1.69005$)	16,901	176,339
Creditor's loss on restructure		<u><u>\$(48,661)</u></u>

***EXERCISE 14-26 (Continued)**

<u>Date</u>	<u>Cash Interest</u>	<u>Effective-Interest</u>	<u>Increase in Carrying Amount</u>	<u>Carrying Amount of Note</u>
12/31/07				\$176,339
12/31/08	\$10,000 ^a	\$21,161 ^b	\$11,161 ^c	187,500
12/31/09	10,000	22,500	12,500	200,000

^a\$10,000 = \$200,000 X .05

^b\$21,161 = \$176,339 X 12%

^c\$11,161 = \$21,161 – \$10,000

December 31, 2008

Cash.....	10,000	
Allowance for Doubtful Accounts.....	11,161	
Interest Revenue.....		21,161

December 31, 2009

Cash.....	10,000	
Allowance for Doubtful Accounts.....	12,500	
Interest Revenue.....		22,500

Cash.....	200,000	
Allowance for Doubtful Accounts.....	25,000	
Note Receivable		225,000

***EXERCISE 14-27 (15–25 minutes)**

(a) Journal entry to record issuance of loan by Paris Bank:

December 31, 2006

Note Receivable.....	100,000	
Discount on Note Receivable		37,908
Cash		62,092

\$100,000 X Present value of 1 for 5 periods at 10%

\$100,000 X .62092 = \$62,092

***EXERCISE 14-27 (Continued)**

(b)

**Note Amortization Schedule
(Before Impairment)**

Date	Cash Received (0%)	Interest Revenue (10%)	Increase in Carrying Amount	Carrying Amount of Note
12/31/06				\$62,092
12/31/07	\$0	\$6,209	\$6,209	68,301
12/31/08	0	6,830	6,830	75,131

Computation of the impairment loss:

Carrying amount of investment (12/31/08)	\$75,131
Less: Present value of \$75,000 due in 3 years at 10% (\$75,000 X .75132)	<u>56,349</u>
Loss due to impairment	<u>\$18,782</u>

The entry to record the loss by Paris Bank is as follows:

Bad Debt Expense	18,782	
Allowance for Doubtful Accounts		18,782

(c) Iva Majoli Company, the debtor, makes no entry because it still legally owes \$100,000.

***EXERCISE 14-28 (15–25 minutes)**

(a) Cash received by Conchita Martinez Company on December 31, 2006:

Present value of principal (\$1,000,000 X .56743)	\$567,430
Present value of interest (\$100,000 X 3.60478)	<u>360,478</u>
Cash received	<u>\$927,908</u>

***EXERCISE 14-28 (Continued)**

(b)

**Note Amortization Schedule
(Before Impairment)**

Date	Cash Received (10%)	Interest Revenue (12%)	Increase in Carrying Amount	Carrying Amount of Note
12/31/06				\$927,908
12/31/07	\$100,000	\$111,349	\$11,349	939,257
12/31/08	100,000	112,711	12,711	951,968

(c) **Loss due to impairment:**

Carrying amount of loan (12/31/08)		\$951,968
Less: Present value of \$600,000 due in 3 years (\$600,000 X .71178)	427,068	
Present value of \$100,000 payable annually for 3 years (\$100,000 X 2.40183)	<u>240,183</u>	<u>667,251</u>
Loss due to impairment		<u>\$284,717</u>

TIME AND PURPOSE OF PROBLEMS

Problem 14-1 (Time 15–20 minutes)

Purpose—to provide the student with the opportunity to interpret a bond amortization schedule. This problem requires both an understanding of the function of such a schedule and the relevance of each of the individual numbers. The student is to prepare journal entries to reflect the information given in the bond amortization schedule.

Problem 14-2 (Time 25–30 minutes)

Purpose—to provide the student with an understanding of how to make the journal entry to record the issuance of bonds. In addition, a portion of the bonds are retired and therefore a bond amortization schedule has to be prepared.

Problem 14-3 (Time 20–30 minutes)

Purpose—to provide the student with an understanding of how interest rates can be used to deceive a customer. The problem is challenging because for the first year of this transaction, negative amortization results.

Problem 14-4 (Time 15–20 minutes)

Purpose—to provide the student with an understanding of the relevant journal entries which are necessitated when there is a bond issuance and bond retirement. This problem also provides an opportunity for the student to learn the income statement treatment of the loss from retirement and the footnote disclosure required.

Problem 14-5 (Time 50–65 minutes)

Purpose—to provide the student with an understanding of the relevant journal entries which are necessitated for a bond issuance. This problem involves two independent bond issuances with the assumption that one is sold at a discount and the other at a premium, both utilizing the effective-interest method. This comprehensive problem requires preparing journal entries for the issuance of bonds, related interest payments and amortization (with the construction of amortization tables where applicable), and the retirement of part of the bonds.

Problem 14-6 (Time 20–25 minutes)

Purpose—to provide the student with an understanding of the relevant journal entries which are necessitated when there is a bond issuance and bond retirement. This problem requires preparing journal entries, assuming the straight-line method, for the issuance of bonds, related interest payments and amortization, and the retirement of part of the bonds.

Problem 14-7 (Time 20–25 minutes)

Purpose—to provide the student with a series of transactions from bond issuance, payment of bond interest, accrual of bond interest, amortization of bond discount, and bond retirement. Journal entries are required for each of these transactions.

Problem 14-8 (Time 15–25 minutes)

Purpose—to provide the student with an opportunity to become familiar with the application of **APB Opinion No. 21**, involving the exchange of notes for cash or property, goods, or services. This problem requires the preparation of the necessary journal entries concerning the exchange of a zero-interest-bearing long-term note for a computer, and the necessary adjusting entries relative to depreciation and amortization. The student should construct the relevant Schedule of Note Discount Amortization to support the respective entries.

Time and Purpose of Problems (Continued)

Problem 14-9 (Time 20–25 minutes)

Purpose—to provide the student with an opportunity to become familiar with the application of **APB Opinion No. 21**, involving the exchange of a note, which is payable in equal installments, for machinery. This problem requires the preparation of the necessary journal entries concerning the exchange and the annual payments and interest. A Schedule of Note Discount Amortization should be constructed to support the respective entries.

Problem 14-10 (Time 20–25 minutes)

Purpose—to provide the student with an understanding of a number of areas related to bonds. Specifically, the classification of bonds, determination of cash received with bond issue costs and accrued interest, and disclosure requirements of **FASB No. 47**.

Problem 14-11 (Time 40–50 minutes)

Purpose—to provide the student with an opportunity to explain what the effective-interest method is, why it is preferable, and how it is computed. As one part of the problem, an amortization schedule must be prepared.

***Problem 14-12** (Time 30–40 minutes)

Purpose—to provide the student with a loan impairment situation that requires entries by both the debtor and the creditor and an analysis of the loss on impairment.

***Problem 14-13** (Time 15–25 minutes)

Purpose—to provide the student with a troubled debt situation that requires computation of the creditor's loss on restructure, entries to recognize the loss, and discussion of GAAP relating to this situation.

***Problem 14-14** (Time 30–45 minutes)

Purpose—to provide the student with four independent and different restructured debt situations where losses or gains must be computed and journal entries recorded on the books of the creditor.

***Problem 14-15** (Time 40–50 minutes)

Purpose—to provide the student with a complex troubled debt situation that requires two amortization schedules, computation of loss on restructure, and entries at different times on both the creditor's and debtor's books.

SOLUTIONS TO PROBLEMS

PROBLEM 14-1

- (a) The bonds were sold at a discount of \$5,651. Evidence of the discount is the January 1, 2000 book value of \$94,349, which is less than the maturity value of \$100,000 in 2009.

- (b) 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.

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

(d) January 1, 2000

Cash	94,349	
Discount on Bonds Payable.....	5,651	
Bonds Payable		100,000

(e) December 31, 2000

Bond Interest Expense.....	11,322	
Discount on Bonds Payable		322
Interest Payable		11,000

(f) January 1, 2007 (Interest Payment)

Interest Payable.....	11,000	
Cash.....		11,000

December 31, 2007

Bond Interest Expense.....	11,712	
Discount on Bonds Payable		712
Interest Payable		11,000

PROBLEM 14-2

(a)	Present value of the principal	
	$\$1,500,000 \times .38554$ (PV _{10, 10%})	\$ 578,310
	Present value of the interest payments	
	$\$157,500^* \times 6.14457$ (PVOA _{10, 10%})	<u>967,770</u>
	Present value (selling price of the bonds)	<u>\$1,546,080</u>

* $\$1,500,000 \times 10.5\% = \underline{\$157,500}$

Cash.....	1,496,080	
Unamortized Bond Issue Costs.....	50,000	
Bonds Payable		1,500,000
Premium Bonds Payable.....		46,080

(b)					Carrying Amount of Bonds
	<u>Date</u>	<u>Cash Paid</u>	<u>Interest Expense</u>	<u>Premium Amortization</u>	<u></u>
	1/1/05				\$1,546,080
	1/1/06	\$157,500	\$154,608	\$2,892	1,543,188
	1/1/07	157,500	154,319	3,181	1,540,007
	1/1/08	157,500	154,001	3,499	1,536,508
	1/1/09	157,500	153,651	3,849	1,532,659

(c)	Carrying amount as of 1/1/08	\$1,536,508
	Less: Amortization of bond premium	
	$(3,849 \div 2)$	<u>1,925</u>
	Carrying amount as of 7/1/08	<u>\$1,534,583</u>
	Reacquisition price	\$800,000
	Carrying amount as of 7/1/08	
	$(1,534,583 \div 2)$	<u>(767,292)</u>
	Loss	<u>\$ 32,708</u>

PROBLEM 14-2 (Continued)

Entry for accrued interest

Interest Expense	38,413	
Premium on Bonds Payable.....	962	
(\$3,849 X 1/2 X 1/2)		
Cash.....		39,375
(\$157,500 X 1/2 X 1/2)		

Entry for reacquisition

Bonds Payable.....	750,000	
Premium on Bonds Payable.....	17,292*	
Loss on Redemption of Bonds	48,958	
Unamortized Bond Issue Costs.....		16,250**
Cash.....		800,000

*Premium as of 7/1/08 to be written off
 (\$1,534,583 – \$1,500,000) X 1/2 = \$17,292

**(\$50,000 X 1/2) ÷ 10 = \$2,500 per year
 \$2,500 X 3.5 = \$8,750

Remaining Balance: \$25,000 – \$8,750 = \$16,250 on 1/2 Bonds

The loss is reported as an ordinary loss under *SFAS No. 145*.

PROBLEM 14-3

(a)

Date	Cash Paid	Interest Expense	Discount Amortized	Carrying Amount of Note
1/1/07				\$24,000
4/1/07	\$300	\$480	\$180	24,180
7/1/07	300	484	184	24,364
10/1/07	300	487	187	24,551
1/1/08	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 Paid	Interest Expense	Discount Amortized	Carrying Amount of Note
1/1/08				\$24,742
4/1/08	\$3,378	\$495	\$2,883	21,859
7/1/08	3,378	437	2,941	18,918
10/1/08	3,378	378	3,000	15,918
1/1/09	3,378	318	3,060	12,858
4/1/09	3,378	257	3,121	9,737
7/1/09	3,378	195	3,183	6,554
10/1/09	3,378	131	3,247	3,307
1/1/10	3,378	71*	3,307	0

*rounded up \$5

(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, 2007:

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, 2008:

Bonds Payable.....	5,000,000	
Loss on Redemption of Bonds	300,000	
Discount on Bonds Payable		100,000
(\$250,000 X 10/25)		
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 2018. 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, 2007 and due in 2027.

PROBLEM 14-5

1. Danny Ferry Co.

3/1/07	Cash.....	236,045	
	Discount on Bonds Payable	13,955*	
	Bonds Payable		250,000
	*Maturity value of bonds payable		\$250,000
	Present value of \$250,000 due in 7 periods at 6% (\$250,000 X .66506)	\$166,265	
	Present value of interest payable semiannually (\$12,500 X 5.58238)	<u>69,780</u>	
	Proceeds from sale of bonds		<u>(236,045)</u>
	Discount on bonds payable		<u>\$ 13,955</u>
9/1/07	Interest Expense.....	14,163	
	Discount on Bonds Payable		1,663
	Cash.....		12,500
12/31/07	Interest Expense.....	9,508	
	Discount on Bonds Payable (\$1,762 X 4/6)		1,175
	Interest Payable (\$12,500 X 4/6).....		8,333
3/1/08	Interest Expense.....	4,754	
	Interest Payable	8,333	
	Discount on Bonds Payable (\$1,762 X 2/6)		587
	Cash.....		12,500
9/1/08	Interest Expense.....	14,368	
	Discount on Bonds Payable		1,868
	Cash.....		12,500
12/31/08	Interest Expense.....	9,653	
	Discount on Bonds Payable (\$1,980 X 4/6)		1,320
	Interest Payable		8,333

PROBLEM 14-5 (Continued)

**Schedule of Bond Discount Amortization
Effective-Interest Method
10% Bonds Sold to Yield 12%**

Date	Cash Paid	Interest Expense	Discount Amortized	Carrying Amount of Bonds
3/1/07				\$236,045
9/1/07	\$12,500	\$14,163	\$1,663	237,708
3/1/08	12,500	14,262	1,762	239,470
9/1/08	12,500	14,368	1,868	241,338
3/1/09	12,500	14,480	1,980	243,318
9/1/09	12,500	14,599	2,099	245,417
3/1/10	12,500	14,725	2,225	247,642
9/1/10	12,500	14,858	2,358	250,000

2. Dougherty Co.

6/1/07	Cash	638,780	
	Premium on Bonds Payable		38,780
	Bonds Payable		600,000
	 Maturity value of bonds payable		 \$600,000
	Present value of \$600,000 due in 8 periods at 5% (\$600,000 X .67684)	\$406,104	
	Present value of interest payable semiannually (\$36,000 X 6.46321)	<u>232,676</u>	
	Proceeds from sale of bonds		<u>638,780</u>
	Premium on bonds payable		<u>\$ 38,780</u>
12/1/07	Interest Expense	31,939	
	Premium on Bonds Payable	4,061	
	Cash (\$600,000 X .12 X 6/12)		36,000
12/31/07	Interest Expense (\$31,736 X 1/6)	5,289	
	Premium on Bonds Payable	711	
	(\$4,264 X 1/6)		
	Interest Payable (\$36,000 X 1/6)		6,000

PROBLEM 14-5 (Continued)

6/1/08	Interest Expense (\$31,736 X 5/6).....	26,447	
	Interest Payable.....	6,000	
	Premium on Bonds Payable.....	3,553	
	(\$4,264 X 5/6)		
	Cash.....		36,000
10/1/08	Interest Expense.....	4,203	
	(\$31,523 X .2* X 4/6)		
	Premium on Bonds Payable.....	597	
	(\$4,477 X .2 X 4/6)		
	Cash.....		4,800
	*\$120,000 ÷ \$600,000 = .2		
10/1/08	Bonds Payable.....	120,000	
	Premium on Bonds Payable.....	5,494	
	Gain on Redemption of Bonds.....		4,294*
	Cash.....		121,200
*Reacquisition price			
	\$126,000 – (\$120,000 X 12% X 4/12)		\$121,200
Net carrying amount of bonds redeemed:			
Par value		\$120,000	
Unamortized premium			
[.2 X (\$38,780 – \$4,061 – \$4,264)] – \$597		5,494	(125,494)
Gain on redemption			<u>\$ (4,294)</u>
12/1/08	Interest Expense (\$31,523 X .8*).....	25,218	
	Premium on Bonds Payable.....	3,582	
	(\$4,477 X .8)		
	Cash (\$36,000 X .8).....		28,800
	*(\$600,000 – \$120,000) ÷ \$600,000 = .8		
12/31/08	Interest Expense.....	4,173	
	(\$31,299 X .8 X 1/6)		
	Premium on Bonds Payable.....	627	
	(\$4,701 X .8 X 1/6)		
	Interest Payable.....		4,800
	(\$36,000 X .8 X 1/6)		

PROBLEM 14-5 (Continued)

6/1/09	Interest Expense (\$31,299 X .8 X 5/6)	20,866	
	Interest Payable.....	4,800	
	Premium on Bonds Payable.....	3,134	
	(\$4,701 X .8 X 5/6)		
	Cash (\$36,000 X .8)		28,800
12/1/09	Interest Expense (\$31,064 X .8).....	24,851	
	Premium on Bonds Payable.....	3,949	
	(\$4,936 X .8)		
	Cash (\$36,000 X .8)		28,800

Date	Cash Paid	Interest Expense	Premium Amortized	Carrying Amount of Bonds
6/1/07				\$638,780
12/1/07	\$36,000	\$31,939	\$4,061	634,719
6/1/08	36,000	31,736	4,264	630,455
12/1/08	36,000	31,523	4,477	625,978
6/1/09	36,000	31,299	4,701	621,277
12/1/09	36,000	31,064	4,936	616,341
6/1/10	36,000	30,817	5,183	611,158
12/1/10	36,000	30,558	5,442	605,716
6/1/11	36,000	30,284*	5,716	600,000

***\$1.80 adjustment due to rounding.**

PROBLEM 14-6

May 1, 2007

Cash	770,000.00	
(\$700,000 X 106%) + (\$700,000 X 12% X 4/12)		
Bonds Payable		700,000.00
Premium on Bonds Payable		42,000.00
Interest Expense (\$700,000 X 12% X 4/12)		28,000.00

December 31, 2007

Interest Expense (\$700,000 X 12%)	84,000.00	
Interest Payable		84,000.00
Premium on Bonds Payable	2,896.55	
Interest Expense		2,896.55
(\$42,000 X 8/116* = \$2,896.55)		
*(12 X 10) - 4 = 116		

January 1, 2008

Interest Payable	84,000.00	
Cash		84,000.00

April 1, 2008

Bonds Payable	420,000.00	
Premium on Bonds Payable	22,810.34*	
Interest Expense (\$420,000 X .12 X 3/12)	12,600.00	
Cash (\$428,400 + \$12,600)		441,000.00
Gain on Retirement of Bonds		14,410.34**

*[(\$420,000 ÷ \$700,000) X \$42,000 X 105/116 = \$22,810.34]

**[(\$420,000 + \$22,810.34) - (\$420,000 X 102%)]

Reacquisition price (including accrued interest)		
(\$420,000 X 102%) + (\$420,000 X 12% X 3/12)		\$441,000.00
Net carrying value of bonds redeemed:		
Par value	\$420,000.00	
Unamortized premium		
[\$42,000 X (\$420,000 ÷ \$700,000) X 105/116]	<u>22,810.34</u>	(442,810.34)
Accrued interest (\$420,000 X 12% X 3/12)		<u>(12,600.00)</u>
Gain on redemption		<u>\$(14,410.34)</u>

PROBLEM 14-6 (Continued)

December 31, 2008

Interest Expense (\$280,000 X .12)	33,600.00	
Interest Payable.....		33,600.00
Premium on Bonds Payable	2,389.65	
Interest Expense		2,389.65
Amortization per year on \$280,000		
(\$42,000 X 12/116 X .40*)		\$1,737.93
Amortization on \$420,000 for 3 months		
(\$42,000 X 3/116 X .60**)		<u>651.72</u>
Total premium amortization		<u>\$2,389.65</u>

***(\$700,000 – \$420,000) ÷ \$700,000 = .4**

****\$420,000 ÷ \$700,000 = .6**

PROBLEM 14-7

(a)	4/1/07	Cash (12,000 X \$1,000 X 97%).....	11,640,000	
		Discount on Bonds Payable.....	360,000	
		Bonds Payable		12,000,000
(b)	10/1/07	Bond Interest Expense.....	672,000	
		Cash		660,000*
		Discount on Bonds Payable		12,000**
		* $\$12,000,000 \times .11 \times 6/12 =$		
		$\$660,000$		
		** $\$360,000 \div 180 \text{ months} =$		
		$\$2,000/\text{mo.}; \$2,000/\text{mo.}$		
		$\times 6 \text{ months} = \$12,000$		
(c)	12/31/07	Bond Interest Expense.....	336,000	
		Interest Payable		330,000
		($\$660,000 \times 3/6$)		
		Discount on Bonds Payable		6,000
		($\$2,000 \times 3 \text{ months}$)		
(d)	3/1/08	Interest Payable.....	82,500	
		Bond Interest Expense.....	56,000	
		Cash		137,500*
		Discount on Bonds Payable		1,000**
		*Cash paid to retiring		
		bondholders: $\$3,000,000$		
		$\times .11 \times 5/12 = \$137,500$		
		** $\$2,000/\text{mo.} \times 2 \text{ months} \times$		
		$1/4 \text{ of the bonds} = \$1,000$		

At March 1, 2008 the carrying amount of the retired bonds is:

Bonds payable	\$3,000,000
Less: Unamortized discount	<u>84,500*</u>
	<u>\$2,915,500</u>

* $\$2,000/\text{mo.} \times 169 \text{ months} \times 1/4 \text{ of the bonds} = \$84,500$

PROBLEM 14-7 (Continued)

The reacquisition price: 100,000 shares X \$31 = \$3,100,000.

The loss on extinguishment of the bonds is:

Reacquisition price	\$3,100,000
Less: Carrying amount	<u>2,915,500</u>
Loss	<u>\$ 184,500</u>

The entry to record extinguishment of the bonds is:

Bonds Payable	3,000,000	
Loss on Redemption of Bonds	184,500	
Discount on Bonds Payable.....		84,500
Common Stock		1,000,000
Paid-in Capital in Excess of Par.....		2,100,000
(or Premium on Common Stock)		

PROBLEM 14-8

(a) December 31, 2007

Computer	273,204.00	
Discount on Notes Payable.....	126,796.00	
Notes Payable		400,000.00
(Computer capitalized at the present value of the note—\$400,000 X .68301)		

(b) December 31, 2008

Depreciation Expense.....	44,640.80	
Accumulated Depreciation—Computer		44,640.80
[(\$273,204 – \$50,000) ÷ 5]		
Interest Expense.....	27,320.40	
Discount on Notes Payable.....		27,320.40

Schedule of Note Discount Amortization

Date	Debit, Interest Expense Credit, Discount on Notes Payable	Carrying Amount of Note
12/31/07		\$273,204.00
12/31/08	\$27,320.40	300,524.40
12/31/09	30,052.44	330,576.84
12/31/10	33,057.68	363,634.52
12/31/11	36,365.48*	400,000.00

*2.03 adjustment due to rounding.

(c) December 31, 2009

Depreciation Expense.....	44,640.80	
Accumulated Depreciation—Computer		44,640.80
Interest Expense.....	30,052.44	
Discount on Notes Payable.....		30,052.44

PROBLEM 14-9

(a)	12/31/06	Machinery	139,363.90	
		Discount on Notes Payable	20,636.10	
		Cash.....		40,000.00
		Notes Payable		120,000.00
		[To record machinery at the present value of the note plus the immediate cash payment: PV of \$30,000 annuity @ 8% for 4 years (\$30,000 X 3.31213)		
			\$ 99,363.90	
		Down payment	<u>40,000.00</u>	
		Capitalized value of machinery		<u>\$139,363.90</u>
(b)	12/31/07	Notes Payable	30,000.00	
		Cash.....		30,000.00
		Interest Expense	7,949.11	
		Discount on Notes Payable		7,949.11

Schedule of Note Discount Amortization

Date	Cash Paid	Interest Expense	Amortization	Carrying Amount of Note
12/31/06				\$99,363.90
12/31/07	\$30,000.00	\$7,949.11	\$22,050.89	77,313.01*
12/31/08	30,000.00	6,185.04	22,814.96	53,498.05
12/31/09	30,000.00	4,279.84	25,720.16	27,777.89
12/31/10	30,000.00	2,222.11**	27,777.89	—

*\$77,313.01 = \$99,363.90 + \$7,949.11 – \$30,000.00.

**\$0.12 adjustment due to rounding.

PROBLEM 14-9 (Continued)

(c)	12/31/08	Notes Payable.....	30,000.00	
		Cash		30,000.00
		Interest Expense.....	6,185.04	
		Discount on Notes Payable.....		6,185.04
(d)	12/31/09	Notes Payable.....	30,000.00	
		Cash		30,000.00
		Interest Expense.....	4,279.84	
		Discount on Notes Payable.....		4,279.84
(e)	12/31/10	Notes Payable.....	30,000.00	
		Cash		30,000.00
		Interest Expense.....	2,222.11	
		Discount on Notes Payable.....		2,222.11

PROBLEM 14-10

(a) Heide Co.

Selling price of the bonds (\$3,000,000 X 103%)	\$3,090,000
Accrued interest from January 1 to February 28, 2008 (\$3,000,000 X 9% X 2/12)	<u>45,000</u>
Total cash received from issuance of the bonds	3,135,000
Less: Bond issuance costs	<u>27,000</u>
Net amount of cash received	<u>\$3,108,000</u>

(b) Reymont Co.

Carrying amount of the bonds on 1/1/07	\$469,280
Effective-interest rate (10%)	<u>X 0.10</u>
Interest expense to be reported for 2007	<u>\$ 46,928</u>

(c) Czeslaw Building Co.

Maturities and sinking fund requirements on long-term debt for the next five year are as follows:

2009	\$400,000	2012	\$200,000
2010	350,000	2013	350,000
2011	200,000		

(d) Marie Curie Inc.

Since the three bonds reported by Marie Curie Inc. are secured by either real estate, securities of other corporations, or plant equipment, none of the bonds are classified as debenture bonds.

PROBLEM 14-11

Dear Mathilda,

When a bond is issued at face value, the annual interest expense and the interest payout equals the face value of the bond times the interest rate stated on its face. However, if the bond is issued to yield a higher or lower interest rate than what is stated on its face, the interest expense and the actual interest payout will differ. Labeled as a discount or premium respectively, this difference in interest must be systematically associated with the interest periods which occur over the bond's life through a process called amortization.

One method of amortization is the straight-line method whereby the amount of the premium or discount is divided by the number of interest periods in the bond's life. The result is an even amount of amortization for every period.

However, a better way of recording interest expense in the period during which it is incurred is the effective-interest method. Assume a premium: the theory behind this method is that, as time passes, the difference between the face value of the bond and its carrying amount becomes smaller, resulting in a lower interest expense every period. (The carrying amount equals the face value of the bond plus any unamortized portion of the premium.) Because the carrying amount of the bond becomes smaller over time, the effective-interest expense also does. Since the stated interest rate remains constant, the resulting difference between the actual interest payout and the interest expense recognized must be reflected when interest expense is recorded for the period.

To amortize the premium applying this method to the data provided, you must know the bond's face amount, its stated rate of interest, its effective rate of interest, and its premium.

1. Multiply the stated rate times the face amount. This is the interest payout.
2. Calculate the carrying amount by adding the premium to the bond's face amount, Now multiply this carrying amount by the effective rate which gives you the actual interest expense.

PROBLEM 14-11 (Continued)

3. Subtract the amount calculated in #2 above from that found in #1. This is the amount to be amortized for the period.
4. Subtract the difference computed in #3 from the carrying amount. The process begins all over when you apply the effective rate to this new carrying amount for the following period.

The schedule below illustrates this calculation. The face value (\$3,000,000) is multiplied by the stated rate of 13 percent, while the carrying amount (\$3,225,690) is multiplied by the effective rate of 12 percent. Because this bond pays interest semiannually, you must also multiply these amounts by 6/12. The result is the stated interest of \$195,000 and effective-interest of \$193,541. The difference (\$1,459) is amortized, lowering the carrying amount of the bond to \$3,224,231. For the next period, this new carrying amount will be multiplied by the effective rate times 6/12 and subtracted from the constant \$195,000. Obviously this time the effective-interest will be lower than it was last period, resulting in a greater amount of amortization in the next period.

Follow these steps and you should have no trouble amortizing premiums and discounts over the life of a bond.

Sincerely,

Attachment to letter

Joan Elbert Company
Interest and Discount Amortization Schedule
13% Bond Issued to Yield 12%

<u>Date</u>	<u>Cash Paid (13%)</u>	<u>Interest Expense (12%)</u>	<u>Premium Amortized</u>	<u>Carrying Amount of Bond</u>
6-30-06				\$3,225,690
12-31-06	\$195,000	\$193,541	\$1,459	3,224,231
6-30-07	195,000	193,454	1,546	3,222,685
12-31-07	195,000	193,361	1,639	3,221,046
6-30-08	195,000	193,263	1,737	3,219,309

***PROBLEM 14-12**

(a) The entries for the issuance of the note on January 1, 2007:

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

Botosan 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

(b) 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 Paid	Interest Expense	Discount Amortized	Carrying Amount of Note
1/1/07				\$ 816,700
12/31/07	\$0	\$ 65,336*	\$ 65,336	882,036**
12/31/08	0	70,563	70,563	952,599
12/31/09	0	76,208	76,208	1,028,807
12/31/10	0	82,305	82,305	1,111,112
12/31/11	<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)

(c) 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 (12/31/08)	\$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, 2008

Botosan Company (Debtor):

No entry.

National Organization Bank (Creditor):

Bad Debt Expense	317,535	
Allowance for Doubtful Accounts.....		317,535

***PROBLEM 14-13**

(a) It is a troubled debt restructuring.

(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. 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.

*PROBLEM 14-14

(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% (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>

***PROBLEM 14-15**

Carrying amount of the debt at date of restructure, $\$110,000 + \$11,000 = \$121,000$. Total future cash flow, $\$100,000 + (\$100,000 \times .10 \times 3) = \$130,000$. Because the future cash flow exceeds the carrying amount of the debt, no gain is recognized at the date of restructure.

- (a) The effective-interest rate subsequent to restructure is computed by trial and error using the assumed partial present value tables based on the present value of \$100,000 (new principal) plus \$10,000 (interest per year) for three years to equal \$121,000.

Try 2 1/2%	Try 2 3/4%
$(\$100,000)(.92859) = \$ 92,859$	$(\$100,000)(.92184) = \$ 92,184$
$(\$10,000)(2.85602) = \underline{28,560}$	$(\$10,000)(2.84226) = \underline{28,423}$
PV = <u>\$121,419</u>	PV = <u>\$120,607</u>
Try 2 5/8%	
$(\$100,000)(.92521) = \$ 92,521$	
$(\$10,000)(2.84913) = \underline{28,491}$	
PV = <u>\$121,012</u>	

Therefore, the approximate effective rate is 2 5/8%.

(b) **SCHEDULE OF DEBT REDUCTION
AND INTEREST EXPENSE AMORTIZATION**

Date	Cash Paid	Interest Expense	Premium Amortized	Carrying Amount of Note
12/31/07				\$121,000
12/31/08	\$ 10,000	\$3,176*	\$ 6,824	114,176
12/31/09	10,000	2,997	7,003	107,173
12/31/10	10,000	2,827**	7,173	100,000
12/31/10	100,000		100,000	-0-

*\$3,176 = $\$121,000 \times 2.625\%$

**Adjusted \$14 due to rounding.

***PROBLEM 14-15 (Continued)**

(c) Calculation of loss:

Pre-restructure carrying amount		\$121,000
Present value of restructured cash flows:		
Present value of \$100,000 due in 3 years at 10% , interest payable annually (Table 6-2); (\$100,000 X .75132)	\$75,132	
Present value of \$10,000 interest payable annually for 3 years at 10% (Table 6-4); (\$10,000 X 2.48685)	<u>24,869</u>	<u>100,000*</u>
Creditor's loss on restructure		<u>\$ (21,000)</u>

*Although the sum of the present value amounts is \$100,001, the true present value of a 10% note discounted at 10% is face value, or \$100,000. The \$1 difference is due to rounding.

Date	Cash Received	Interest Revenue	Change in Carrying Amount	Carrying Amount of Note
12/31/07				\$100,000
12/31/08	\$ 10,000 ^a	\$10,000 ^b	\$ 0	100,000 ^c
12/31/09	10,000	10,000	0	100,000
12/31/10	10,000	10,000	0	100,000
12/31/10	100,000	0	100,000	0

^a\$10,000 = \$100,000 X 10%.

^b\$10,000 = \$100,000 X 10%.

^c\$100,000 = \$100,000 – \$0.

(d) Mildred Corp. entries:

December 31, 2007

Interest Payable	11,000	
Notes Payable		11,000

December 31, 2008

Interest Expense	3,176	
Notes Payable	6,824	
Cash		10,000

***PROBLEM 14-15 (Continued)**

December 31, 2009

Interest Expense	2,997	
Notes Payable	7,003	
 Cash.....		10,000

December 31, 2007

(e) Bad Debt Expense	21,000	
 Allowance for Doubtful Accounts		21,000

December 31, 2008, 2009

Cash	10,000	
 Interest Revenue		10,000

TIME AND PURPOSE OF CONCEPTS FOR ANALYSIS

CA 14-1 (Time 25–30 minutes)

Purpose—to provide the student with some familiarity with the economic theory which relates to the accounting for a bond issue. The student is required to discuss the conceptual merits for each of the three different balance sheet presentations for the same bond issue, and the merits for utilizing the nominal rate versus the effective rate at date of issue in the computation of the carrying value of the obligations arising from a bond issue.

CA 14-2 (Time 10–15 minutes)

Purpose—to provide the student with an understanding of the various accounts which are generated in a bond issue and their proper classifications on the balance sheet. Justification must be provided for the treatment accorded these accounts in relation to the specifics of this case.

CA 14-3 (Time 15–25 minutes)

Purpose—this case includes discussions of the determination of the selling price of bonds, presentation of items related to bonds on the balance sheet and the income statement, whether discount amortization increases or decreases, and how an early retirement of bonds should be reported on the income statement.

CA 14-4 (Time 20–25 minutes)

Part I—Purpose—to provide the student with an understanding of the significance of the difference between the effective-interest method of amortization and the straight-line method of amortization.

Part II—Purpose—to provide the student with some familiarity with the various methods of accounting for gains and losses from the early extinguishment of debt, and the justifications for each of the different methods.

CA 14-5 (Time 20–30 minutes)

Purpose—the student is asked to explain project financing arrangements, take-or-pay contracts, off-balance-sheet financing, and the conditions for which a contractual obligation is to be disclosed as unconditional purchase obligation. The case also requires the student to determine accounting treatment for a project financing arrangement.

CA 14-6 (Time 20–30 minutes)

Purpose—to provide the student with an opportunity to examine the ethical issues related to the issue of bonds.

SOLUTIONS TO CONCEPTS FOR ANALYSIS

CA 14-1

- (a) 1. This is a common balance sheet presentation and has the advantage of being familiar to users of financial statements. The face or maturity value of \$1,000,000 is shown in an obvious manner. The total of \$1,075,230 is the objectively determined exchange price at which the bonds were issued. It represents the fair market value of the bond obligations given. Thus, this is in keeping with the generally accepted accounting practice of using exchange prices as a primary source of data.
2. This presentation indicates the dual nature of the bond obligations. There is an obligation to make periodic payments of \$65,000 and an obligation to pay the \$1,000,000 at maturity. The amounts presented on the balance sheet are the present values of each of the future obligations discounted at the initial effective rate of interest.

The proper emphasis is placed upon the accrual concept, that is, that interest accrues through the passage of time. The emphasis upon premiums and discounts is eliminated.

3. This presentation shows the total liability which is incurred in a bond issue, but it ignores the time value of money. This would be a fair presentation of the bond obligations only if the effective-interest rate were zero.
- (b) When an entity issues interest-bearing bonds, it normally accepts two types of obligations: (1) to pay interest at regular intervals and (2) to pay the principal at maturity. The investors who purchase Branagh Company bonds expect to receive \$65,000 each January 1 and July 1 through January 1, 2028 plus \$1,000,000 principal on January 1, 2028. Since this (\$65,000) is more than the 12% per annum (\$60,000 semiannually) that the investors would be willing to accept on an investment of \$1,000,000 in these bonds, they are willing to bid up the price—to pay a premium for them. The amount that the investors should be willing to pay for these future cash flows depends upon the interest rate that they are willing to accept on their investment(s) in this security.

The amount that the investors are willing to pay (and the issuer is willing to accept), \$1,075,230, is the present value of the future cash flows discounted at the rate of interest that they will accept.

Another way of viewing this is that the \$1,075,230 is the amount which, if invested at an annual interest rate of 12% compounded semiannually, would allow withdrawals of \$65,000 every six months from July 1, 2008 through January 1, 2028 and \$1,000,000 on January 1, 2028.

Even when bonds are issued at their maturity value, the price paid coincides with the maturity value because the coupon rate is equal to the effective rate. If the bonds had been issued at their maturity value, the \$1,000,000 would be the present value of future interest and principal payments discounted at an annual rate of 13% compounded semiannually.

Here the effective rate of interest is less than the coupon rate, so the price of the bonds is greater than the maturity value. If the effective rate of interest was greater than the coupon rate, the bonds would sell for less than the maturity value.

- (c) 1. The use of the coupon rate for discounting bond obligations would give the face value of the bond at January 1, 2008, and at any interest-payment due thereafter. Although the coupon rate is readily available while the effective rate must be computed, the coupon rate may be set arbitrarily at the discretion of management so that there would be little or no support for accepting it as the appropriate discount rate.

CA 14-1 (Continued)

2. The effective-interest rate at January 1, 2008 is the market rate to Branagh Company for long-term borrowing. This rate gives a discounted value for the bond obligations, which is the amount that could be invested at January 1, 2008 at the market rate of interest. This investment would provide the sums needed to pay the recurring interest obligation plus the principal at maturity. Thus, the effective-interest rate is objectively determined and verifiable.

The market or yield rate of interest at the date of issue should be used throughout the life of the bond because it reflects the interest obligation which the issuer accepted at the time of issue. The resulting value at the date of issue was the current value at that time and is similar to historical cost. Also, this yield rate is objectively determined in an exchange transaction.

The continued use of the issue-date yield rate results in a failure to reflect whether the burden is too high or too low in terms of the changes which may have taken place in the interest rate.

- (d) Using a current yield rate produces a current value, that is, the amount which could currently be invested to produce the desired payments. When the current yield rate is lower than the rate at the issue date (or than at the previous valuation date), the liabilities for principal and interest would increase. When the current yield is higher than the rate at the issue date (or at the previous valuation date), the liabilities would decrease. Thus, holding gains and losses could be determined. If the debt is held until maturity, the total of the interest expense and the holding gains and losses under this method would equal the total interest expense using the yield rate at issue date.

CA 14-2

1. Use of the asset requires a depreciation charge in each year of use. This in turn requires carrying the equipment as an asset. The company has contracted to purchase the equipment and, thus, has a real liability which affects financial condition and must be shown.
2. The discount on bonds payable represents the excess of the par (face) value of bonds over their market value at the date of issue. The discount is not an asset but rather a valuation account which when deducted from the par value of the bonds at the date of sale, represents the market value. Discount on bonds payable is not an asset because it does not provide any future economic benefit. The discount represents the market's adjustment in the interest or yield element.
3. The obligation of a company is to its bondholders, not to the trustee. Until the bondholders have received payment, the company still has a liability.

(Note to instructor: The student may have difficulty with this statement because this type of situation was not discussed in the chapter. It therefore provides an opportunity to emphasize that payment to an agent or trustee does not constitute payment of the liability for bond interest. When the trustee dispenses the funds to bondholders, the liability should be reduced. A separate Bond Interest Fund account is established at the time payment is made to the trustee.)

4. Treasury bonds are not an asset. A company cannot owe or own itself. Thus, these bonds are different from investments in bonds of other companies. Treasury bonds should be reported as a deduction from bonds payable.

CA 14-3

- (a) 1. The selling price of the bonds would be the present value of all of the expected net future cash outflows discounted at the effective annual interest rate (yield) of 11 percent. The present value is the sum of the present value of its maturity amount (face value) plus the present value of the series of future semiannual interest payments.

CA 14-3 (Continued)

2. Immediately after the bond issue is sold, the current asset, cash, would be increased by the proceeds from the sale of the bond issue. A noncurrent liability, bonds payable, would be presented in the balance sheet at the face value of the bonds less the discount. The bond issue costs would be classified as a “noncurrent asset, deferred charge” under generally accepted accounting principles; however, there is theoretical justification for classifying the bond issue costs as either an expense or a reduction of the related debt liability.
- (b) The following items related to the bond issue would be included in Chan’s 2008 income statement:
1. Interest expense would be included for ten months (March 1, 2008, to December 31, 2008) at an effective-interest rate (yield) of 11 percent. This is composed of the nominal interest of 9 percent adjusted for the amortization of the related bond discount. Bond discount should be amortized using the effective-interest method over the period the bonds will be outstanding, that is, the period from the date of sale (March 1, 2008) to the maturity date (March 1, 2013).
 2. Interest expense (or bond issue expense) would be included for ten months of amortization of bond issue costs (March 1, 2008 to December 31, 2008). Bond issue costs should be amortized over the period the bonds will be outstanding, that is, the period from the date of sale (March 1, 2008) to the maturity date (March 1, 2013). However, there is theoretical justification for classifying the total bond issue costs as an expense.
- (c) The amount of bond discount amortization would be lower in the second year of the life of the bond issue. The effective-interest method of amortization uses a uniform interest rate based upon a changing carrying value which results in increasing amortization each year when there is a bond discount.
- (d) The retirement of the bonds would result in a loss from extinguishment of debt that should be included in the determination of net income and classified as an ordinary loss.

CA 14-4

Part I.

- (a) The effective-interest method of amortization of bond discount or premium applies a constant interest rate to the carrying value of the debt. The straight-line method applies a constant dollar amount over the life of the debt resulting in a changing effective-interest rate incurred based on the carrying value of the debt. Either method, however, computes the total premium or discount to be amortized as the difference between the par value of the debt and the proceeds from the issuance.
- (b) Before the effective-interest method of amortization can be used, the effective yield or interest rate of the bond must be computed. The effective yield rate is the interest rate that will discount the two components of the debt instrument to the amount received at issuance. The two components in the value of a bond are the present value of the principal amount due at the end of the bond term and the present value of the annuity represented by the periodic interest payments during the life of the bond. Interest expense using the interest method is based upon the effective yield or interest rate multiplied by the carrying value of the bond (par value adjusted for unamortized premium or discount). The amount of amortization is the difference between recognized interest expense and the interest actually paid (par value multiplied by the nominal rate). When a premium is being amortized, the dollar amount of the periodic amortization will increase over the life of the instrument. This is due to the decreasing carrying value of the bond instrument multiplied by the constant effective-interest rate, which is subtracted from the amount of cash interest paid. In the case of a discount, the dollar amount of the periodic amortization will increase over the life of the bond. This is due to the increasing carrying value of the bond instrument multiplied by the constant effective-interest rate from which is subtracted the amount of cash interest paid.

CA 14-4 (Continued)

The varying amounts of amortization occur because of the changing carrying value of the bond over the life of the instrument. In contrast, the straight-line method of amortization yields a constant dollar amount of amortization based upon the life of the instrument regardless of effective yield rates demanded in the marketplace.

Part II.

- (a) 1. **Gain or loss to be amortized over the remaining life of old debt.** The basic argument supporting this method is that if refunding is done to obtain debt at a lower cash outlay (interest cost), then the gain or loss is truly a cost of obtaining the reduction in cash outlay. As such, the new rate of interest alone does not reflect the cost of the new debt, but a portion of the gain or loss on the extinguishment of the old instrument must be matched with the nominal interest to reflect the true cost of obtaining the new debt instrument. This argument states that this matching must continue for the unexpired life of the old debt in order to reflect the true nature of the transaction and cost of obtaining the new debt instrument.
2. **Gain or loss to be amortized over the life of the new debt instrument.** This argument states that the gain or loss from early extinguishment of debt actually affects the cost of obtaining a new debt instrument. However, this method asserts that the effect should be matched with the interest expense of the new debt for the entire life of the new debt instrument. This argument is based on the assumption that the debt was refunded to take advantage of new lower interest rates or to avoid projected high interest rates in the future and that any gain or loss on early extinguishment should be reflected as an element of this decision and total interest cost over the life of the new instrument should be stated to reflect this decision.
3. **Gain or loss recognized in the period of extinguishment.** Proponents of this method state that the early extinguishment of debt to be refunded actually does not differ from other types of extinguishment of debt where the consensus is that any gain or loss from the transaction should be recognized in full in current net earnings. The early extinguishment of the debt is prompted for the same reason that other debt instruments are extinguished, namely, that the value of the debt instrument has changed in light of current financial circumstances and early extinguishment of the debt would produce the most favorable results. Also, it is argued that any gain or loss on the extinguishment is directly related to market interest fluctuations related to prior periods. If the true market interest rate had been known at the time of issuance, there would be no gain or loss at the time of extinguishment. Also, even if market interest rates were not known but the carrying value of the bond was periodically adjusted to market, any gain or loss would be reflected at the interim dates and not in a future period. The call premium paid on extinguishment and any unamortized premium or discount are actually adjustments to the actual effective-interest rate over the outstanding life of the bond. As such, any gain or loss on the early extinguishment of debt is related to prior-period valuation differences and should be recognized immediately.
- (b) The immediate recognition principle is the only acceptable method of reflecting gains or losses on the early extinguishment of debt, and these amounts, if material, must be reflected as ordinary gains and losses.

CA 14-5

- (a) Such financing arrangements arise when (1) two or more entities form another entity to construct an operating plant that will be used by both parties; (2) the new entity borrows funds to construct the project and repays the debt from the proceeds received from the project; and (3) payment of the debt is guaranteed by the companies that formed the new entity.

CA 14-5 (Continued)

- (b) In some cases, project financing arrangements become more formalized through the use of take-or-pay contracts or similar types of contracts. In a simple take-or-pay contract, a purchaser of goods signs an agreement with the seller to pay specified amounts periodically in return for products or services. The purchaser must make specified minimum payments even if delivery of the contracted products or services is not taken.
- (c) Pitt should not record the plant as its asset. The plant is to be constructed and operated by ACC. Although Pitt agrees to purchase all of the cans produced by ACC, Pitt does not have the property right to the plant, nor the right to use the plant.
- (d) Accounting for purchase commitments is unsettled and controversial. Some argue that these contracts should be reported as assets and liabilities at the time the contract is signed; others believe that our present recognition at the delivery date is most appropriate. **FASB Concepts Statement No. 6** states that

“a purchase commitment involves both an item that might be recorded as an asset and an item that might be recorded as a liability. That is, it involves both a right to receive assets and an obligation to pay . . . If both the right to receive assets and the obligation to pay were recorded at the time of the purchase commitment, the nature of the loss and the valuation account that records it when the price falls would be clearly seen.”

Although the discussion in **Concepts Statement No. 6** does not exclude the possibility of recording assets and liabilities for purchase commitments, it contains no conclusions or implications about whether they should be recorded.

According to current practice, Pitt does not record an asset relating to the future purchase commitment. However, if the dollar amount involved is material, the details of the contract should be disclosed in a footnote to the balance sheet. In addition, if the contracted price is in excess of the purchase market price and it is expected that losses will occur when the purchase is effected, losses should be recognized in the accounts in the period during which such declines in prices take place.

- (e) Off-balance-sheet financing is an attempt to borrow monies in such a way that the obligations are not recorded in a company's balance sheet. The reasons for off-balance-sheet financing are manifold. First, many believe that removing debt or otherwise keeping it from the balance sheet enhances the quality of the balance sheet and permits credit to be obtained more readily and at less cost. Second, loan covenants often impose a limitation on the amount of debt a company may have. As a result, off-balance-sheet financing is used because these types of commitments might not be considered in computing the debt limitation. Third, it is argued by some that the asset side of the balance sheet is severely understated because of the use of certain accounting methods (like LIFO and accelerated depreciation methods). As an offset to these lower values, some believe that part of the debt does not have to be reported.

Note to instructor: Additional discussion of these type arrangements is presented in Appendix 17B related to variable interest entities.

CA 14-6

- (a) The stakeholders in the Thebeau case are:
 - Roland Carlson, president, founder, and majority stockholder.
 - Jana Kingston, minority stockholder.
 - Other minority stockholders.
 - Existing creditors (debt holders).
 - Future bondholders.
 - Employees, suppliers, and customers.

CA 14-6 (Continued)

- (b) The ethical issues:

The desires of the majority stockholder (Roland Carlson) versus the desires of the minority stockholders (Jana Kingston and others).

Doing what is right for the company and others versus doing what is best for oneself.

Questions:

Is what Roland wants to do legal? Is it unethical? Is Roland's action brash and irresponsible? Who may benefit/suffer if Roland arranges a high-risk bond issue? Who may benefit/suffer if Jana Kingston gains control of Thebeau?

- (c) The rationale provided by the student will be more important than the specific position because this is a borderline case with no *right* answer.

FINANCIAL REPORTING PROBLEM

(a) According to the Long-Term Debt note (Note 6),

“Long-term debt maturities during the next five fiscal years are: 2005, \$1,518 million; 2006, \$2,625 million; 2007, \$1,433 million; 2008, \$972 million; and 2009, \$1,150 million.”

(b) (Amounts in \$millions)

(1) Working capital = Current assets less current liabilities.

$$(\$5,032) = \$17,115 - \$22,147$$

(2) Acid-test ratio =
$$\frac{\text{Cash + investments + net receivables}}{\text{Current liabilities}}$$

$$.45 \text{ times} = \frac{\$5,469 + \$423 + \$4,062}{\$22,147}$$

(3) Current ratio =
$$\frac{\text{Current assets}}{\text{Current liabilities}}$$

$$.77 \text{ times} = \frac{\$17,115}{\$22,147}$$

P&G has a fairly weak liquidity position. The current ratio is below 1. The acid-test ratio is significantly below 1, possibly due to a slowing economy.

The other ratio analysis below corroborates P&G's relatively poor financial position in 2004.

$$\begin{aligned} \text{Receivables turnover} &= \frac{\text{Net sales}}{\text{Average receivables}} \\ &= \frac{\$51,407}{\frac{\$3,038 + \$4,062}{2}} \\ &= 14.48 \text{ times} \end{aligned}$$

FINANCIAL REPORTING PROBLEM (Continued)

$$\begin{aligned}\text{Inventory turnover} &= \frac{\text{Cost of goods sold}}{\text{Average inventory}} \\ &= \frac{\$25,076}{\frac{\$3,640 + \$4,400}{2}} \\ &= 6.24 \text{ times}\end{aligned}$$

$$\begin{aligned}\text{Current cash debt coverage ratio} &= \frac{\text{Net cash provided by operating activities}}{\text{Average current liabilities}} \\ &= \frac{\$9,362}{\frac{\$12,358 + \$22,147}{2}} \\ &= .54 \text{ times}\end{aligned}$$

$$\begin{aligned}\text{Cash debt coverage ratio} &= \frac{\text{Net cash provided by operating activities}}{\text{Average total liabilities}} \\ &= \frac{\$9,362}{\frac{\$27,520 + \$39,770}{2}} \\ &= .28 \text{ times}\end{aligned}$$

$$\text{Debt to total assets} = \frac{\$39,770}{\$57,048} = .70$$

$$\begin{aligned}\text{Time interest earned} &= \frac{\text{Income before income taxes and interest expense}}{\text{Interest expense}} \\ &= \frac{\$9,350 + \$629}{\$629} \\ &= 15.86 \text{ times}\end{aligned}$$

FINANCIAL STATEMENT ANALYSIS CASE 1

COMMONWEALTH EDISON CO.

- (a) Due to the markdown from 99.803 to 99.25, Commonwealth Edison would record a slightly larger discount and, of course, receive and record less cash. Amortization of the larger discount will result in a larger interest expense charge in each year the bonds are outstanding. As a result of the additional \$5.50 markdown, the effective-interest rate increased from 9.3% to 9.45%.
- (b) In the same *Wall Street Journal* article, the following explanation was provided for Commonwealth Edison's bond markdown and slow sale:

“Commonwealth had the misfortune to begin its giant offering only hours before investor sentiment was soured by the report last Thursday of a record increase in the nation's money supply. The monetary surge, plus a recent rebound in industrial productivity reported Friday, halted the market rally triggered in early May by signs of an economic slowdown and a peaking of interest rates.”

Other economic events that can and do affect the price of securities issued are:

1. A change in the Federal Reserve's lending rate.
2. A change in the bank prime rate.
3. A flood of other similar securities issues.
4. A good or poor earnings report for the issuer.
5. A change in the issuer's credit rating.
6. The issuance of a favorable or unfavorable broker's or other financial analysis.

FINANCIAL STATEMENT ANALYSIS CASE 1 (Continued)

Of course, noneconomic, political, or other world events can also affect the day-to-day sale of securities.

The “recent rebound in industrial productivity” mentioned in the article would normally not be a depressant on a securities issue; but because the financial community was anticipating, even hoping for, a recession to “cool off the economy” and, thus, lower the then existing high interest rates, the rebound represented a delay in the recession and the lowering of interest rates.

FINANCIAL STATEMENT ANALYSIS CASE 2

PEPSICO

- (a) Answers will vary. The company may have decided to refinance in order to free cash needed for some other purpose, to reduce current cash needs, or to leave a credit line available for quick access.
- (b) The investor probably enjoys a higher interest rate than that obtained from other types of bonds. Also, a smaller initial investment is required.

Bonds Payable.....	780,000,000	
Cash.....		780,000,000

This bond would be listed in short-term liabilities in the year prior to the year of payment.

(c)

Cash	298,050,000	
Discount on Bonds Payable.....	950,000	
Bonds Payable		295,000,000
Premium on Bonds Payable		4,000,000

OR the two bonds could be shown separately:

Cash	204,000,000	
Bonds Payable		200,000,000
Premium on Bonds Payable		4,000,000

and

Cash	94,050,000	
Discount on Bonds Payable.....	950,000	
Bonds Payable		95,000,000

Possible reasons for the difference could be that the stated interest rate on the Australian bond was very attractive to Australian investors, therefore it sold at a premium; and the interest rate on the Italian bond was unattractive to Italian investors, so it sold at a discount.

FINANCIAL STATEMENT ANALYSIS CASE 2 (Continued)

- (d) **Answers will vary. One advantage would be that it is a bond whose principal may not need to be paid in the foreseeable future.**

Current Portion of Long-Term Debt	100,000,000	
Long-term Debt.....		100,000,000

No journal entry is necessary to record the change in interest rate.

COMPARATIVE ANALYSIS CASE

(a) Debt to total assets ratio:

Coca-Cola	$\$15,392/\$31,327 = 49\%$
PepsiCo	$\$14,464/\$27,987 = 52\%$

Times interest earned ratio:

Coca-Cola	$(\$4,847 + \$1,375 + \$196)/\$196 = 32.74$ times
PepsiCo	$(\$4,212 + \$1,334 + \$167)/\$167 = 34.21$ times

The debt to total assets ratios of 49% for Coca-Cola and 52% for PepsiCo show both companies to be highly leveraged, PepsiCo more so than Coca-Cola. The times interest earned ratios show that interest expense is quite adequately covered by the firms' net income; PepsiCo's coverage is more than good; it is superb, especially considering the debt to total assets ratio of 52%.

(b)

	<u>Carrying Value</u>	<u>Fair Value</u>
Coca-Cola	\$2,647	\$2,736
PepsiCo	3,451	3,676

The fair value will vary from the historical cost carrying value due to changes in interest rates.

- (c)**
1. Lower interest rates may be available in foreign countries.
 2. Credit may be more readily available in foreign countries.

Using foreign debt to finance operations is subject to the risk of foreign currency exchange rate fluctuations. Both PepsiCo and Coca-Cola enter into interest rate and foreign currency swaps to effectively change the interest rate and currency of specific debt issuances. These swaps are generally entered into concurrently with the issuance of the debt they are intended to modify.

RESEARCH CASES

CASE 1

Answer will vary based on company selected.

CASE 2

- (a) According to the article, a tender for the bonds is related to the issuance of common stock. That is, the proceeds to purchase the bonds would come from a related IPO or asset sale proceeds. In a sense the amount of bonds purchased would be determined by the amount of money TYCO would receive in the IPO or asset sale. TYCO's McGee said the end result of any revised plan would also be a reduction of Tyco's total debt by \$11 billion, but . . . "There are a lot of things you can do other than using IPO or sale proceeds to repurchase debt securities." This is because the market for TYCO stock is depressed and there is uncertainty as to the value of its assets.

With an open market purchase, TYCO would go into the open market and buy the bonds back. That could be a better deal because Tyco's bonds recently have been trading at a sharp discount to Treasury securities of similar maturity, due to investor concerns about the company's liquidity. Thus, they could reduce their debt levels at a lower cost.

- (b) Assuming that the bonds would be purchased at a gain, the gain would be reported in income as an ordinary gain (according to *SFAS No. 145*.)
- (c) Under current GAAP, TYCO would not write its bonds *payable* down to their current market value. Such accounting would result in a gain, which in the absence of an arm's length transaction would raise questions about the reliability of the measurement of the gain. If this were a bond investment, the investment would be carried at its fair value on the balance sheet with any gains or losses recorded in income, if classified as a trading security. If classified as available for sale, the gains or losses would be recorded in other comprehensive

RESEARCH CASE 2 (Continued)

income. The principle involved in both cases is the relevance of fair values for reporting financial instruments. If reliable fair measures of a company's debt are available, an argument can be made to carry the obligation at fair value. Some are concerned with that treatment because a struggling company, like TYCO would record a gain, increasing income, at a time when its prospects are quite dim.

Note to instructors: This will be a challenging question for most students but it raises an important issue being debated by accounting standard-setters in trying to implement fair value accounting for financial instruments. Currently there is asymmetric treatment of bonds when held as investments versus as a liability. Note that fair value accounting would be employed for debt that is being hedged in a fair value hedge (see Appendix 17A).

Search Strings: “established exchange price,” “statement presentation of discount and premium,” “process of approximation”

- (a) APB 21, Par. 1. *Problem.* Business transactions often involve the exchange of cash or property, goods, or service for a note or similar instrument. The use of an interest rate that varies from prevailing interest rates warrants evaluation of whether the face amount and the stated interest rate of a note or obligation provide reliable evidence for properly recording the exchange and subsequent related interest. This Opinion sets forth the Board’s views regarding the appropriate accounting when the face amount of a note does not reasonably represent the present value of the consideration given or received in the exchange. This circumstance may arise if the note is non-interest bearing or has a stated interest rate, which is different from the rate of interest appropriate for the debt at the date of the transaction. Unless the note is recorded at its present value in this circumstance the sales price and profit to a seller in the year of the transaction and the purchase price and cost to the buyer are misstated, and interest income and interest expense in subsequent periods are also misstated. The primary objective of this Opinion is to refine the manner of applying existing accounting principles in this circumstance. Thus, it is not intended to create a new accounting principle.

APB 21, Par. 2. *Applicability.* The principles discussed in this Opinion are applicable to receivables and payables which represent contractual rights to receive money or contractual obligations to pay money on fixed or determinable dates, whether or not there is any stated provision for interest, except as stated in paragraphs 3 and 4. Such receivables and payables are collectively referred to in this Opinion as “notes.” Examples are secured and unsecured notes, debentures, bonds, mortgage notes, equipment obligations, and some accounts receivable and payable.

- (b) APB 21, Par. 10. If an established exchange price is not determinable and if the note has no ready market, the problem of determining present value is more difficult. To estimate the present value of a note under such circumstances, an applicable interest rate is approximate which may differ from the stated or coupon rate. This process of approximation is frequently called imputation, and the resulting rate is often called an imputed interest rate. Nonrecognition of an apparently small difference between the stated rate of interest and the applicable current rate may have a material effect on the financial statements if the face amount of the note is large and its term is relatively long.
- (c) APB 21, Par. 16. *Statement presentation of discount and premium.* The discount or premium resulting from the determination of present value in cash or non-cash transactions is not an asset or liability separable from the note which gives rise to it. Therefore, the discount or premium should be reported in the balance sheet as a direct deduction from or addition to the face amount of the note. It should not be classified as a deferred charge or deferred credit. The description of the note should include the effective-interest rate; the face amount should also be disclosed in the financial statements or in the notes to the statements. Amortization of discount or premium should be reported as interest in the statement of income. Issue costs should be reported in the balance sheet as deferred charges.

PROFESSIONAL SIMULATION

Journal Entries

April 1, 2005

Cash.....	5,307,228.36*	
Premium on Bond's Payable		307,228.36
Bonds Payable.....		5,000,000.00

*Price using Tables:

$$\begin{aligned}
 \$5,000,000 \times .38554 &= \$1,927,700 \\
 550,000 \times 6.14457 &= \underline{3,379,514} \\
 &= \underline{\$5,307,214}
 \end{aligned}$$

Difference due to rounding in tables.

April 1, 2006

Interest Payable.....	550,000.00	
Cash		550,000.00

Note: Entry made on March 31, 2006:

Interest Expense.....	530,722.84	
Premium on Bond's Payable.....		19,277.16
Interest Payable.....		550,000.00

Resources

	A	B	C	D	E	F	G	H	I	J	K	L
1												
2	Schedule of Bond Premium Amortization											
3	Effective Interest Method-Annual Interest Payments											
4	10-Year, 11% Bonds Sold to Yield 10%											
5												
6					The following formula is inserted into the cells in this column: =0.1*I11		The following function is inserted into the cells in this column: =C12-E12					
7												
8												
9												
10	Date	Cash Paid		Interest Expense		Premium Amortized		Carrying Amount of Bonds				
11	April 1, 2005							\$5,307,228.36		The following function is inserted into the cells in this column: =I11-G12		
12	April 1, 2006	\$550,000		\$530,722.84		\$19,277.16		5,287,951.19				
13	April 1, 2007	550,000		528,795.12		21,204.88		5,266,746.31				
14	April 1, 2008	550,000		526,674.63		23,325.37		5,243,420.94				
15	April 1, 2009	550,000		524,342.09		25,657.91		5,217,763.03				
16	April 1, 2010	550,000		521,776.30		28,223.70		5,189,539.34				
17	April 1, 2011	550,000		518,953.93		31,046.07		5,158,493.27				
18	April 1, 2012	550,000		515,849.33		34,150.67		5,124,342.60				
19	April 1, 2013	550,000		512,434.28		37,565.74		5,086,776.86				
20	April 1, 2014	550,000		508,677.69		41,322.31		5,045,454.54				
21	April 1, 2015	550,000		504,545.45		45,454.55		5,000,000.00				
22		\$5,500,000		\$5,192,771.64		\$307,228.36						
23												
24												
25					The following formula is inserted in the cells in this column: =(500000*0.11)							
26												
27												
28												
29												

PROFESSIONAL SIMULATION (Continued)

Financial Statements

Balzac Inc.
Balance Sheet as of March 31, 2006

Long-term liabilities

11% bonds payable (Note A)	\$5,000,000	
Premium on Bonds Payable	<u>287,951</u>	\$5,287,951
Asset retirement obligation, warehouse site		35,000
Notes payable (Note B)		<u>1,100,000</u>
Total long-term liabilities		<u>\$6,422,951</u>

Note A—Bonds The 11% bonds call for annual interest payments on each April 1. The bonds mature on April 1, 2015.

Note B—Notes Payable The current liabilities include current maturities of several notes payable. The long-term notes payable mature as follows.

Due Date	Amount Due
April 1, 2007 – March 31, 2008	\$600,000
April 1, 2008 – March 31, 2009	500,000