

# CHAPTER 10

## Liabilities

### ASSIGNMENT CLASSIFICATION TABLE

<u>Learning Objectives</u>	<u>Questions</u>	<u>Brief Exercises</u>	<u>Do It!</u>	<u>Exercises</u>	<u>A Problems</u>	<u>B Problems</u>
1. Explain a current liability, and identify the major types of current liabilities.	1	1			1A	1B
2. Describe the accounting for notes payable.	2	2	1	1, 2	1A, 2A	1B
3. Explain the accounting for other current liabilities.	3, 4, 5	3, 4	1	3, 4, 5	1A	1B
4. Explain why bonds are issued, and identify the types of bonds.	6, 7, 8, 9, 10,	5	2	6, 7		
5. Prepare the entries for the issuance of bonds and interest expense.	11, 12, 13	6, 7, 8	3	8, 9, 10, 11, 16, 17, 18, 19	3A, 4A, 6A, 7A, 8A, 9A	2B, 3B, 5B, 6B, 7B, 8B, 9B
6. Describe the entries when bonds are redeemed.	14	9	4	11, 12	3A, 4A, 10A	2B, 3B, 9B
7. Describe the accounting for long-term notes payable.	15	10	5	13	5A	4B
8. Identify the methods for the presentation and analysis of non-current liabilities.	16	11		14	3A, 4A, 5A	2B, 3B, 4B
*9. Compute the market price of a bond.	19	12		15		
*10. Apply the effective-interest method of amortizing bond discount and bond premium.	17, 18	13		16, 17	6A, 7A	5B, 6B

## ASSIGNMENT CLASSIFICATION TABLE (Continued)

<u>Learning Objectives</u>	<u>Questions</u>	<u>Brief Exercises</u>	<u>Do It!</u>	<u>Exercises</u>	<u>A Problems</u>	<u>B Problems</u>
*11. Apply the straight-line method of amortizing bond discount and bond premium.	20, 21	14, 15		18, 19	8A, 9A, 10A	7B, 8B, 9B
*12. Prepare entries for payroll and payroll taxes under U.S. law.	22	16, 17		20, 21		

**\*Note:** All **asterisked** Questions, Exercises, and Problems relate to material contained in the appendices to the chapter.

## ASSIGNMENT CHARACTERISTICS TABLE

<b>Problem Number</b>	<b>Description</b>	<b>Difficulty Level</b>	<b>Time Allotted (min.)</b>
1A	Prepare current liability entries, adjusting entries, and current liabilities section.	Moderate	30–40
2A	Journalize and post note transactions; and show statement of financial position presentation.	Moderate	30–40
3A	Prepare entries to record issuance of bonds, interest accrual, and bond redemption.	Moderate	20–30
4A	Prepare entries to record issuance of bonds, interest accrual, and bond redemption.	Moderate	15–20
5A	Prepare installment payments schedule and journal entries for a mortgage note payable.	Moderate	20–30
*6A	Prepare entries to record issuance of bonds, payment of interest, and amortization of bond premium using effective-interest method.	Moderate	30–40
*7A	Prepare entries to record issuance of bonds, payment of interest, and amortization of discount using effective-interest method. In addition, answer questions.	Moderate	30–40
*8A	Prepare entries to record issuance of bonds, interest accrual, and straight-line amortization for 2 years.	Simple	30–40
*9A	Prepare entries to record issuance of bonds, interest, and straight-line amortization of bond premium and discount.	Simple	30–40
*10A	Prepare entries to record interest payments, straight-line premium amortization, and redemption of bonds.	Moderate	30–40
1B	Prepare current liability entries, adjusting entries, and current liabilities section.	Moderate	30–40
2B	Prepare entries to record issuance of bonds, interest accrual, and bond redemption.	Moderate	20–30
3B	Prepare entries to record issuance of bonds, interest accrual, and bond redemption.	Moderate	15–20
4B	Prepare installment payments schedule and journal entries for a mortgage note payable.	Moderate	20–30
*5B	Prepare entries to record issuance of bonds, payment of interest, and amortization of bond discount using effective-interest method.	Moderate	30–40

## ASSIGNMENT CHARACTERISTICS TABLE (Continued)

<b>Problem Number</b>	<b>Description</b>	<b>Difficulty Level</b>	<b>Time Allotted (min.)</b>
*6B	Prepare entries to record issuance of bonds, payment of interest, and amortization of premium using effective-interest method. In addition, answer questions.	Moderate	30–40
*7B	Prepare entries to record issuance of bonds, interest accrual, and straight-line amortization for two years.	Simple	30–40
*8B	Prepare entries to record issuance of bonds, interest, and straight-line amortization of bond premium and discount.	Simple	30–40
*9B	Prepare entries to record interest payments, straight-line discount amortization, and redemption of bonds.	Moderate	30–40

**WEYGANDT FINANCIAL ACCOUNTING, IFRS EDITION, 2e**  
**CHAPTER 10**  
**LIABILITIES**

<b>Number</b>	<b>LO</b>	<b>BT</b>	<b>Difficulty</b>	<b>Time (min.)</b>
BE1	1	C	Simple	3–5
BE2	2	AP	Simple	2–4
BE3	3	AP	Simple	2–4
BE4	3	AP	Simple	2–4
BE5	4	AP	Simple	6–8
BE6	5	AP	Simple	4–6
BE7	5	AP	Simple	3–5
BE8	5	AP	Simple	4–6
BE9	6	AP	Simple	3–5
BE10	7	AP	Simple	6–8
BE11	8	AP	Simple	3–5
BE12	9	AP	Simple	3–5
BE13	10	AP	Simple	4–6
*BE14	11	AP	Simple	4–6
*BE15	11	AP	Simple	4–6
*BE16	12	AP	Simple	3–5
*BE17	12	AP	Simple	3–5
DI1	2, 3	C	Simple	6–8
DI2	4	C	Simple	2–3
DI3	5	AP	Simple	4–6
DI4	6	AP	Simple	3–5
DI5	7	AP	Simple	4–6
EX1	2	AN	Moderate	8–10
EX2	2	AN	Simple	6–8
EX3	3	AP	Simple	4–6
EX4	3	AN	Simple	6–8
EX5	3	AP	Simple	6–8
EX6	4	C	Simple	4–6
EX7	4	AN	Simple	4–6
EX8	5	AP	Simple	4–6
EX9	5	AP	Simple	4–6
EX10	5	AP	Simple	6–8
EX11	5, 6	AP	Simple	6–8
EX12	6	AP	Moderate	8–10
EX13	7	AP	Simple	6–8
EX14	8	AP	Simple	3–5

## LIABILITIES (Continued)

<b>Number</b>	<b>LO</b>	<b>BT</b>	<b>Difficulty</b>	<b>Time (min.)</b>
*EX15	9	AP	Simple	4–2
*EX16	5, 10	AP	Moderate	8–10
*EX17	5, 10	AP	Moderate	8–10
*EX18	5, 11	AP	Simple	6–8
*EX19	5, 11	AP	Simple	6–8
*EX20	12	AP	Simple	6–8
*EX21	12	AP	Simple	3–5
P1A	1–3	AN	Moderate	30–40
P2A	2	AN	Moderate	30–40
P3A	5, 6, 8	AP	Moderate	20–30
P4A	5, 6, 8	AP	Moderate	15–20
P5A	7, 8	AP	Moderate	20–30
*P6A	5, 10	AP	Moderate	30–40
*P7A	5, 10	AP	Moderate	30–40
*P8A	5, 11	AP	Simple	30–40
*P9A	5, 11	AP	Simple	30–40
*P10A	6, 11	AP	Moderate	30–40
P1B	1–3	AN	Moderate	30–40
P2B	5, 6, 8	AP	Moderate	20–30
P3B	5, 6, 8	AP	Moderate	15–20
P4B	7, 8	AP	Moderate	20–30
P5B	5, 10	AP	Moderate	30–40
*P6B	5, 10	AP	Moderate	30–40
*P7B	5, 11	AP	Simple	30–40
*P8B	5, 11	AP	Simple	30–40
*P9B	5, 6, 11	AP	Moderate	30–40
BYP1	1, 8	AN	Simple	5–10
BYP2	1, 3, 8	AP	Simple	10–15
BYP3	4	C	Simple	10–15
BYP4	5, 6	AN	Moderate	15–20
BYP5	4	C	Simple	10–15
BYP6	—	E	Simple	10–15

# BLOOM'S TAXONOMY TABLE

Correlation Chart between Bloom's Taxonomy, Learning Objectives and End-of-Chapter Exercises and Problems

Learning Objective	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
1. Explain a current liability, and identify the major types of current liabilities.	Q10-1 BE10-1			P10-1A P10-1B		
2. Describe the accounting for notes payable.	Q10-2 D110-1		BE10-2	E10-1 P10-1A E10-2 P10-2A P10-1B		
3. Explain the accounting for other current liabilities.	Q10-3 Q10-4 D110-1	Q10-5	BE10-3 E10-3 BE10-4 E10-5	E10-4 P10-1B P10-1A		
4. Explain why bonds are issued, and identify the types of bonds.	Q10-6 Q10-7 Q10-8	Q10-9 D110-2	BE10-5 E10-6	E10-7		
5. Prepare the entries for the issuance of bonds and interest expense.	Q10-11 Q10-13		Q10-12 E10-16 P10-9A BE10-6 E10-17 P10-2B BE10-7 E10-18 P10-3B BE10-8 E10-19 P10-5B D110-3 P10-3A P10-6B E10-8 P10-4A P10-7B E10-9 P10-6A P10-8B E10-10 P10-7A P10-9B E10-11 P10-8A E10-12			
6. Describe the entries when bonds are redeemed.	Q10-14		BE10-9 P10-3A P10-3B D110-4 P10-4A P10-9B E10-11 P10-10A E10-12 P10-2B			
7. Describe the accounting for long-term notes payable.			Q10-15 D110-5 P10-4B BE10-10 E10-13 P10-5A			
8. Identify the methods for the presentation and analysis of non-current liabilities.	Q10-16		BE10-11 P10-4A P10-3B E10-14 P10-5A P10-4B P10-3A P10-2B			
*9. Compute the market price of a bond.	Q10-19		BE10-12 E10-15			
*10. Apply the effective-interest method of amortizing bond discount and bond premium.	Q10-17 Q10-18		BE10-13 P10-6A P10-6B E10-16 P10-7A E10-17 P10-5B			
*11. Apply the straight-line method of amortizing bond discount and bond premium.	Q10-20		Q10-21 E10-19 P10-7B BE10-14 P10-8A P10-8B BE10-15 P10-9A P10-9B E10-18 P10-10A			
*12. Prepare entries for payroll and payroll taxes under U.S. GAAP.	Q10-22		BE10-16 E10-20 BE10-17 E10-21			
Broadening Your Perspective		Communication Real-World Focus	Comparative Analysis	Financial Reporting Decision-Making Across the Organization		Ethics Case

# ANSWERS TO QUESTIONS

1. Brenda is not correct. A current liability is a debt that can reasonably be expected to be paid: (a) from existing current assets or through the creation of other current liabilities and (2) within one year or the operating cycle, whichever is longer.
  
2. In the statement of financial position, Notes Payable of Rs300,000 and Interest Payable of Rs6,750 (Rs300,000 X .09 X 3/12) should be reported as current liabilities. In the income statement, Interest Expense of Rs6,750 should be reported after other income and expense.
  
3. (a) Disagree. The company only serves as a collection agent for the taxing authority. It does not report sales taxes as an expense; it merely forwards the amount paid by the customer to the government.  
 (b) The entry to record the proceeds is:
 

Cash.....	7,400	
Sales Revenue.....		7,000
Sales Taxes Payable.....		400
  
4. (a) The entry when the tickets are sold is:
 

Cash.....	900,000	
Unearned Ticket Revenue.....		900,000

  
 (b) The entry after each game is:
 

Unearned Ticket Revenue.....	180,000	
Ticket Revenue.....		180,000
  
5. Liquidity refers to the ability of a company to pay its maturing obligations and meet unexpected needs for cash. Two measures of liquidity are working capital (current assets – current liabilities) and the current ratio (current assets ÷ current liabilities).
  
6. (a) Non-current liabilities are obligations that are expected to be paid after one year. Examples include bonds, long-term notes, and lease obligations.  
 (b) Bonds are a form of interest-bearing notes payable used by corporations, universities, and governmental agencies.
  
7. (a) The major advantages are:
  - (1) Shareholder control is not affected—bondholders do not have voting rights, so current shareholders retain full control of the company.
  - (2) Tax savings result—In some countries bond interest is deductible for tax purposes; dividends on stock are not.
  - (3) Earnings per share may be higher—although bond interest expense will reduce net income, earnings per share on ordinary shares will often be higher under bond financing because no additional shares are issued.
 (b) The major disadvantages in using bonds are that interest must be paid on a periodic basis and the principal (face value) of the bonds must be paid at maturity.



## Questions Chapter 10 (Continued)

8. (a) Secured bonds have specific assets of the issuer pledged as collateral. In contrast, unsecured bonds are issued against the general credit of the borrower. These bonds are called debenture bonds.
- (b) Term bonds mature at a single specified future date. In contrast, serial bonds mature in installments.
- (c) Registered bonds are issued in the name of the owner. In contrast, bearer (coupon) bonds are issued to bearer and are unregistered. Holders of bearer bonds must send in coupons to receive interest payments.
- (d) Convertible bonds may be converted into ordinary shares at the bondholders' option. In contrast, callable bonds are subject to call and retirement at a stated dollar amount prior to maturity at the option of the issuer.
9. (a) Face value is the amount of principal due at the maturity date. (Face value is also called par value.)
- (b) The contractual interest rate is the rate used to determine the amount of cash interest the borrower pays and the investor receives. This rate is also called the stated interest rate because it is the rate stated on the bonds.
- (c) A bond indenture is a legal document that sets forth the terms of the bond issue.
- (d) A bond certificate is a legal document that indicates the name of the issuer, the face value of the bonds, and such other data as the contractual interest rate and maturity date of the bonds.
10. The two major obligations incurred by a company when bonds are issued are the interest payments due on a periodic basis and the principal which must be paid at maturity.
11. Less than. Investors are required to pay more than the face value; therefore, the market interest rate is less than the contractual rate.
12. R\$24,000.  $R\$800,000 \times 6\% \times 1/2 \text{ year} = R\$24,000$ .
13. HK\$9,000,000. The balance of the Bonds Payable account plus the unamortized bond discount (or minus the unamortized bond premium) equals the face value of the bonds.
14. Debits: Bonds Payable (for the carrying value of the bonds).  
Credits: Cash (for 97% of the face value) and Gain on Bond Redemption (for the difference between the cash paid and the bonds' carrying value).
15. No, Roy is not right. Each payment by Roy consists of: (1) interest on the unpaid balance of the loan and (2) a reduction of loan principal. The interest decreases each period while the portion applied to the loan principal increases each period.

## Questions Chapter 10 (Continued)

16. The nature and the amount of each non-current liability should be presented in the statement of financial position or in schedules in the accompanying notes to the statements. The notes should also indicate the interest rates, maturity dates, conversion privileges, and assets pledged as collateral.
- \*17. Ginny is probably indicating that since the borrower has the use of the bond proceeds over the term of the bonds, the borrowing rate in each period should be the same. The effective-interest method results in a varying amount of interest expense but a constant rate of interest on the balance outstanding. Accordingly, it results in a better matching of expenses with revenues than the straight-line method.
- \*18. Decrease. Under the effective-interest method the interest charge per period is determined by multiplying the carrying value of the bonds by the effective-interest rate. When bonds are issued at a premium, the carrying value decreases over the life of the bonds. As a result, the interest expense will also decrease over the life of the bonds because it is determined by multiplying the decreasing carrying value of the bonds at the beginning of the period by the effective-interest rate.
- \*19. No, Vera is not right. The market price of any bond is a function of three factors: (1) The currency amounts to be received by the investor (interest and principal), (2) The length of time until the amounts are received (interest payment dates and maturity date), and (3) The market interest rate.
- \*20. The straight-line method results in the same amortized amount being assigned to Interest Expense each interest period. This amount is determined by dividing the total bond discount or premium by the number of interest periods the bonds will be outstanding.
- \*21. \$24,000. Interest expense is the interest to be paid in cash less the premium amortization for the year. Cash to be paid equals  $7\% \times \$400,000$  or \$28,000. Total premium equals 5% of \$400,000 or \$20,000. Since this is to be amortized over 5 years (the life of the bonds) in equal amounts, the amortization amount is  $\$20,000 \div 5 = \$4,000$ . Thus,  $\$28,000 - \$4,000$  or \$24,000 equals interest expense for 2014.
- \*22. Three taxes commonly withheld by employers from employees' gross pay are: (1) federal income taxes (2) state income taxes, and (3) social security (FICA) taxes.

# SOLUTIONS TO BRIEF EXERCISES

## BRIEF EXERCISE 10-1

- (a) A note payable due in two years is a non-current liability, not a current liability.
- (b) \$30,000 of the mortgage payable is a current maturity of long-term debt. This amount should be reported as a current liability.
- (c) Interest payable is a current liability because it will be paid out of current assets in the near future.
- (d) Accounts payable is a current liability because it will be paid out of current assets in the near future.

## BRIEF EXERCISE 10-2

July 1	Cash .....	60,000	
	Notes Payable .....		60,000
Dec. 31	Interest Expense .....	3,000	
	Interest Payable (£60,000 X 10% X 1/2) .....		3,000

## BRIEF EXERCISE 10-3

### Sales tax payable

- (1) Sales = \$12,800 = (\$13,440 ÷ 1.05)
- (2) Sales taxes payable = \$640 = (\$12,800 X 5%)

Mar. 16	Cash .....	13,440	
	Sales Revenue .....		12,800
	Sales Taxes Payable .....		640

**BRIEF EXERCISE 10-4**

Cash .....	720,000	
Unearned Ticket Revenue .....		720,000
(To record sale of 4,000 season tickets)		
Unearned Ticket Revenue .....	72,000	
Ticket Revenue .....		72,000
(To record basketball ticket revenues earned)		

**BRIEF EXERCISE 10-5**

	<u>Issue Shares</u>	<u>Issue Bond</u>
Income before interest and taxes	€700,000	€700,000
Interest (€2,000,000 X 7%)	<u>0</u>	<u>140,000</u>
Income before income taxes	700,000	560,000
Income tax expense (30%)	<u>210,000</u>	<u>168,000</u>
Net income (a)	<u>€490,000</u>	<u>€392,000</u>
Outstanding shares (b)	700,000	500,000
Earnings per share (a) ÷ (b)	<u>€0.70</u>	<u>€0.78</u>

Net income is higher if shares is used. However, earnings per share is lower than earnings per share if bonds are used because of the additional shares that are outstanding.

**BRIEF EXERCISE 10-6**

(a) Jan. 1	Cash .....	4,000,000	
	Bonds Payable		
	(4,000 X \$1,000) .....		4,000,000
(b) July 1	Interest Expense .....	120,000	
	Cash (\$4,000,000 X 6% X 1/2) ..		120,000
(c) Dec. 31	Interest Expense .....	120,000	
	Interest Payable		
	(\$4,000,000 X 6% X 1/2).....		120,000

**BRIEF EXERCISE 10-7**

(a)	Jan. 1	Cash (€1,000,000 X .97).....	970,000	
		Bonds Payable.....		970,000
(b)	Jan. 1	Cash (€1,000,000 X 1.04).....	1,040,000	
		Bonds Payable.....		1,040,000

**BRIEF EXERCISE 10-8**

1.	Jan. 1	Cash (1,000 X \$1,000).....	1,000,000	
		Bonds Payable.....		1,000,000
2.	July 1	Cash (\$800,000 X 1.02).....	816,000	
		Bonds Payable.....		816,000
3.	Sept. 1	Cash (\$200,000 X .97).....	194,000	
		Bonds Payable.....		194,000

**BRIEF EXERCISE 10-9**

		Bonds Payable.....	960,000	
		Loss on Bond Redemption		
		(£1,010,000 – £960,000) .....	50,000	
		Cash (£1,000,000 X 101%) .....		1,010,000

### BRIEF EXERCISE 10-10

Semiannual Interest Period	(A) Cash Payment	(B) Interest Expense (D) X 5%	(C) Reduction of Principal (A) – (B)	(D) Principal Balance (D) – (C)
Issue Date				\$400,000
1	\$32,097	\$20,000	\$12,097	387,903

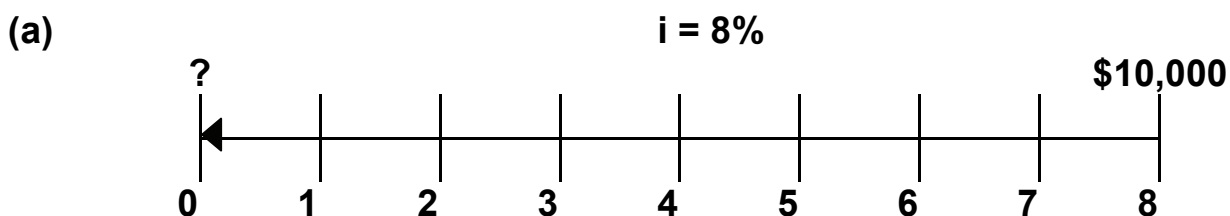
Dec. 31	Cash .....		400,000	
	Mortgage Payable .....			400,000
June 30	Interest Expense .....		20,000	
	Mortgage Payable .....		12,097	
	Cash .....			32,097

### BRIEF EXERCISE 10-11

#### Non-current liabilities

Bonds payable, due 2016 .....	CHF500,000
Notes payable, due 2019 .....	80,000
Lease liability .....	60,000
<b>Total non-current liabilities .....</b>	<b><u>CHF640,000</u></b>

### \*BRIEF EXERCISE 10-12

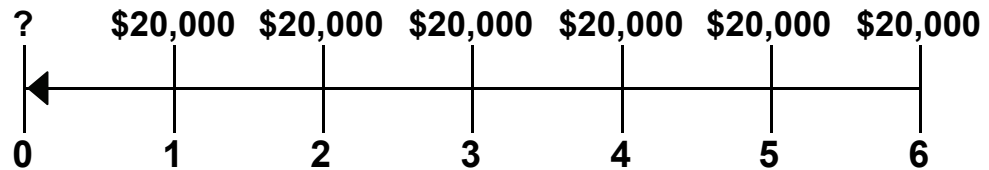


Discount rate from Table 10 A-1 is .54027 (8 periods at 8%). Present value of \$10,000 to be received in 8 periods discounted at 8% is therefore \$5,402.70 (\$10,000 X .54027).

**\*BRIEF EXERCISE 10-12 (Continued)**

(b)

$i = 10\%$



Discount rate from Table 10A-2 is 4.35526 (6 periods at 10%). Present value of 6 payments of \$20,000 each discounted at 10% is therefore \$87,105.20 ( $\$20,000 \times 4.35526$ ).

**\*BRIEF EXERCISE 10-13**

(a)	Interest Expense .....	32,513	
	Bonds Payable .....		2,513
	Cash .....		30,000

(b) Interest expense is greater than interest paid because the bonds sold at a discount which must be amortized over the life of the bonds. The bonds sold at a discount because investors demanded a market interest rate higher than the contractual interest rate.

(c) Interest expense increases each period because the bond carrying value increases each period. As the market interest rate is applied to this bond carrying amount, interest expense will increase.

**\*BRIEF EXERCISE 10-14**

(a)	Jan. 1	Cash (.96 X HK\$3,000,000).....	2,880,000	
		Bonds Payable .....		2,880,000

(b)	July 1	Interest Expense .....	141,000	
		Bonds Payable		
		(HK\$120,000 ÷ 20) .....		6,000
		Cash (HK\$3,000,000 X 9% X 1/2)		135,000

**\*BRIEF EXERCISE 10-15**

(a) Cash (1.02 X \$2,000,000).....	2,040,000	
Bonds Payable.....		2,040,000
(b) Interest Expense .....	96,000	
Bonds Payable		
(\$40,000 ÷ 10).....	4,000	
Cash (\$2,000,000 X 10% X 1/2) .....		100,000

**\*BRIEF EXERCISE 10-16**

Gross earnings:		
Regular pay (40 X \$14).....	\$560.00	
Overtime pay (7 X \$21).....	<u>147.00</u>	<u>\$707.00</u>
Gross earnings.....		\$707.00
Less: FICA taxes payable.....	\$ 54.09	
Federal income taxes payable.....	<u>95.00</u>	<u>149.09</u>
Net pay .....		<u>\$557.91</u>

**\*BRIEF EXERCISE 10-17**

Jan. 15	Salaries and Wages Expense .....	707.00	
	FICA Taxes Payable .....		54.09
	Federal Income Taxes Payable .....		95.00
	Salaries and Wages Payable.....		557.91
Jan. 15	Salaries and Wages Payable .....	557.91	
	Cash .....		557.91

**SOLUTIONS FOR DO IT! REVIEW EXERCISES**

**DO IT! 10-1**

1.  $\$70,000 \times 9\% \times 5/12 = \$2,625$
2.  $\$42,000/1.05 = \$40,000$ ;  $\$40,000 \times 5\% = \$2,000$
3.  $\$42,000 \times 1/6 = \$7,000$



## **DO IT! 10-2**

- 1. False. Mortgage bonds and sinking fund bonds are both examples of secured bonds.**
- 2. False. Convertible bonds can be converted into ordinary shares at the bondholder's option; callable bonds can be retired by the issuer at a set amount prior to maturity.**
- 3. True.**
- 4. True.**
- 5. True.**

**DO IT! 10-3**

(a) Cash .....	308,000,000	
Bonds Payable.....		308,000,000
(To record sale of bonds at a premium)		
 (b) Non-current liabilities		
Bonds payable .....		<del>W</del> 308,000,000

**DO IT! 10-4**

Loss on Bond Redemption .....	2,000	
Bonds Payable .....	390,000	
Cash .....		392,000
(To record redemption of bonds at 98)		

**DO IT! 10-5**

Cash .....	390,000	
Mortgage Payable .....		390,000
(To record mortgage loan)		
 Interest Expense .....	9,750*	
Mortgage Payable .....	8,883	
Cash .....		18,633
(To record semiannual payment on mortgage)		

\*Interest expense = R\$390,000 X 5% X 6/12

# SOLUTIONS TO EXERCISES

## EXERCISE 10-1

<b>July 1, 2014</b>		
Cash .....	60,000	
Notes Payable.....		60,000
<b>November 1, 2014</b>		
Cash .....	50,000	
Notes Payable.....		50,000
<b>December 31, 2014</b>		
Interest Expense		
(€60,000 X 8% X 6/12) .....	2,400	
Interest Payable.....		2,400
Interest Expense		
(€50,000 X 9% X 2/12) .....	750	
Interest Payable.....		750
<b>February 1, 2015</b>		
Notes Payable.....	50,000	
Interest Payable.....	750	
Interest Expense .....	375	
Cash .....		51,125
<b>April 1, 2015</b>		
Notes Payable.....	60,000	
Interest Payable.....	2,400	
Interest Expense .....	1,200	
Cash .....		63,600

**EXERCISE 10-2**

<b>(a)</b>	<b>June 1</b>	<b>Cash</b> ..... <b>70,000</b> <b>Notes Payable</b> ..... <b>70,000</b>		
<b>(b)</b>	<b>June 30</b>	<b>Interest Expense</b> ..... <b>525</b> <b>Interest Payable</b> $[(\$70,000 \times 9\%) \times 1/12]$ ..... <b>525</b>		
<b>(c)</b>	<b>Dec. 1</b>	<b>Notes Payable</b> ..... <b>70,000</b> <b>Interest Payable</b> $(\$70,000 \times 9\% \times 6/12)$ ..... <b>3,150</b> <b>Cash</b> ..... <b>73,150</b>		
<b>(d)</b>				<b>\$3,150</b>

**EXERCISE 10-3**

<b>KEMER COMPANY</b>				
<b>Apr. 10</b>	<b>Cash</b> .....		<b>31,650</b>	
	<b>Sales Revenue</b> .....			<b>30,000</b>
	<b>Sales Taxes Payable</b> .....			<b>1,650</b>
<b>BODRUM COMPANY</b>				
<b>15</b>	<b>Cash</b> .....		<b>20,330</b>	
	<b>Sales Revenue</b> ( $\text{₺}20,330 \div 1.07$ ) .....			<b>19,000</b>
	<b>Sales Taxes Payable</b> $(\text{₺}19,000 \times .07)$ .....			<b>1,330</b>

### EXERCISE 10-4

(a)	Nov. 30	Cash .....	216,000	
		Unearned Subscription Revenue		
		(12,000 X \$18).....		216,000
(b)	Dec. 31	Unearned Subscription Revenue.....	18,000	
		Subscription Revenue		
		(\$216,000 X 1/12).....		18,000
(c)	Mar. 31	Unearned Subscription Revenue .....	54,000	
		Subscription Revenue		
		(\$216,000 X 3/12).....		54,000

### EXERCISE 10-5

(a) Current ratio

$$2010 \quad \$12,215 \div \$6,089 = 2.01:1$$

$$2009 \quad \$10,795 \div \$4,897 = 2.20:1$$

Working capital

$$2010 \quad \$12,215 - \$6,089 = \$6,126 \text{ million}$$

$$2009 \quad \$10,795 - \$4,897 = \$5,898 \text{ million}$$

(b) Current ratio

$$\$12,015 \div \$5,889 = 2.04:1$$

Working capital

$$\$12,015 - \$5,889 = \$6,126 \text{ million}$$

It would make its current ratio increase slightly, but its working capital would remain the same.

## EXERCISE 10-6

1. True.
2. True.
3. False. When seeking long-term financing, an advantage of issuing *bonds* over issuing *ordinary shares* is that tax savings result.
4. True.
5. False. *Unsecured* bonds are also known as debenture bonds.
6. False. Bonds that mature in installments are called *serial* bonds.
7. True.
8. True.
9. True.
10. True.

## EXERCISE 10-7

	<u>Plan One</u> <u>Issue Shares</u>	<u>Plan Two</u> <u>Issue Bonds</u>
Income before interest and taxes	¥800,000	¥800,000
Interest (¥2,400,000 X 10%)	—	<u>240,000</u>
Income before taxes	<u>800,000</u>	560,000
Income tax expense (30%)	<u>240,000</u>	<u>168,000</u>
Net income	<u>¥560,000</u>	<u>¥392,000</u>
Outstanding shares	<u>150,000</u>	<u>90,000</u>
Earnings per share	<u>¥3.73</u>	<u>¥4.36</u>

**EXERCISE 10-8**

(a)	Jan. 1	Cash.....	200,000	
		Bonds Payable .....		200,000
(b)	July 1	Interest Expense.....	8,000	
		Cash ( $\$200,000 \times 8\% \times 1/2$ ).....		8,000
(c)	Dec. 31	Interest Expense.....	8,000	
		Interest Payable .....		8,000

**EXERCISE 10-9**

(a)	Jan. 1	Cash.....	400,000	
		Bonds Payable .....		400,000
(b)	July 1	Interest Expense.....	14,000	
		Cash ( $R\$400,000 \times 7\% \times 1/2$ ).....		14,000
(c)	Dec. 31	Interest Expense.....	14,000	
		Interest Payable .....		14,000

**EXERCISE 10-10**

(a) 1.	Cash.....	294,000	
	Bonds Payable .....		294,000
2.	Semiannual interest payments		
	(\$12,000* X 10) .....		\$120,000
	Plus: Bond discount.....		<u>6,000</u>
	Total cost of borrowing.....		<u>\$126,000</u>

\*( $\$300,000 \times .08 \times 6/12$ )

OR

Principal at maturity .....	\$300,000
Semiannual interest payments	
(\$12,000 X 10) .....	<u>120,000</u>
Cash to be paid to bondholders.....	420,000
Cash received from bondholders.....	<u>(294,000)</u>
Total cost of borrowing.....	<u>\$126,000</u>

(b) 1.	Cash.....	312,000	
	Bonds Payable .....		312,000
2.	Semiannual interest payments		
	(\$12,000 X 10) .....		\$120,000
	Less: Bond Premium.....		<u>12,000</u>
	Total cost of borrowing.....		<u>\$108,000</u>

OR

Principal at maturity .....	\$300,000
Semiannual interest payments	
(\$12,000 X 10) .....	<u>120,000</u>
Cash to be paid to bondholders.....	420,000
Cash received from bondholders.....	<u>(312,000)</u>
Total cost of borrowing.....	<u>\$108,000</u>



### EXERCISE 10-11

(a)	Jan. 1	Interest Payable .....	56,000	
		Cash .....		56,000
(b)	Jan 1	Bonds Payable.....	600,000	
		Loss on Bond Redemption.....	24,000	
		Cash (\$600,000 X 1.04) .....		624,000
(c)	July 1	Interest Expense.....	35,000	
		Cash (\$1,000,000 X 7% X 1/2).....		35,000

### EXERCISE 10-12

1.	June 30	Bonds Payable .....	117,500	
		Loss on Bond Redemption		
		(£132,600 – £117,500) .....	15,100	
		Cash (£130,000 X 102%).....		132,600
2.	June 30	Bonds Payable .....	151,000	
		Gain on Bond Redemption		
		(£151,000 – £145,500).....		5,500
		Cash (£150,000 X 97%).....		145,500

**EXERCISE 10-13**

		<u>2014</u>	
		Issuance of Note	
Dec. 31	Cash .....	240,000	
	Mortgage Payable.....		240,000
		<u>2015</u>	
		First Installment Payment	
June 30	Interest Expense		
	(\$240,000 X 8% X 6/12).....	9,600	
	Mortgage Payable .....	8,060	
	Cash.....		17,660
		Second Installment Payment	
Dec. 31	Interest Expense		
	[(\$240,000 – \$8,060) X 8% X 6/12] .....	9,277.60	
	Mortgage Payable .....	8,382.40	
	Cash.....		17,660

**EXERCISE 10-14**

<b>Non-current liabilities</b>		
Bonds payable, due 2019.....		HK\$204,000
Lease liability .....		<u>59,500</u>
Total non-current liabilities.....		<u><u>HK\$263,500</u></u>

**\*EXERCISE 10-15**

Present value of principal (\$250,000 X .61391) .....	\$153,478
Present value of interest (\$10,000 X 7.72173) .....	<u>77,217</u>
Market price of bonds.....	<u><u>\$230,695</u></u>

**\*EXERCISE 10-16**

(a)	Jan. 1	Cash.....	468,844	
		Bonds Payable .....		468,844
(b)	July 1	Interest Expense		
		(€468,844 X 5%) .....	23,442	
		Bonds Payable .....		942
		Cash (€500,000 X 9% X 1/2).....		22,500
(c)	Dec. 31	Interest Expense		
		[(€468,844 + €942) X 5%].....	23,489	
		Bonds Payable .....		989
		Bond Interest Payable .....		22,500

**\*EXERCISE 10-16 (Continued)**

(b), (c)	(A)	(B)	(C)	(D)
	Interest to Be Paid (4.5% X €500,000)	Interest Expense to Be Recorded (5% X Preceding Bond Carrying Value) (D X .05)	Discount Amortization (B) – (A)	Bond Carrying Value
Semiannual Interest Periods				
Issue date				
1	€22,500	€23,442	€942	€468,844
2	22,500	23,489	989	469,786
				470,775

**\*EXERCISE 10-17**

(a)	Jan. 1	Cash.....	321,319	
		Bonds Payable .....		321,319
(b)	July 1	Interest Expense		
		(\$321,319 X 3.5%) .....	11,246	
		Bonds Payable.....	754	
		Cash (\$300,000 X 8% X 1/2).....		12,000
(c)	Dec. 31	Interest Expense		
		[( \$321,319 – \$754) X 3.5%] .....	11,220	
		Bonds Payable.....	780	
		Bond Interest Payable .....		12,000

**\*EXERCISE 10-17 (Continued)**

(b), (c)	(A) Interest to Be Paid (4% X \$300,000)	(B) Interest Expense to Be Recorded (3.5% X Preceding Bond Carrying Value) (D X 3.5)	(C) Premium Amortization (A) – (B)	(D) Bond Carrying Value
Semiannual Interest Periods				
Issue date				
1	\$12,000	\$11,246	\$754	\$321,319
2	12,000	11,220	780	320,565 319,785

**\*EXERCISE 10-18**

(a)	Jan. 1	Cash (€700,000 X 103%).....	721,000	
		Bonds Payable.....		721,000
(b)	July 1	Interest Expense.....	30,975	
		Bonds Payable		
		(€21,000 X 1/40).....	525	
		Cash (€700,000 X 9% X 1/2).....		31,500
(c)	Dec. 31	Interest Expense .....	30,975	
		Bonds Payable .....	525	
		Bond Interest Payable.....		31,500
				<b>2034</b>
(d)	Jan. 1	Bonds Payable .....	700,000	
		Cash.....		700,000

**\*EXERCISE 10-19**

(a)			<b>2013</b>	
	Dec. 31	Cash .....	575,000	
		Bonds Payable.....		575,000
(b)			<b>2014</b>	
	June 30	Interest Expense .....	22,250	
		Bonds Payable		
		(\$25,000 ÷ 20) .....		1,250
		Cash (\$600,000 X 7% X 1/2) .....		21,000
(c)			<b>2014</b>	
	Dec. 31	Interest Expense .....	22,250	
		Bonds Payable.....		1,250
		Cash (\$600,000 X 7% X 1/2) .....		21,000
(d)			<b>2023</b>	
	Dec. 31	Bonds Payable .....	600,000	
		Cash.....		600,000

**\*EXERCISE 10-20**

(a) **Net pay = Gross pay – FICA taxes – Federal income tax**

**Net pay = \$1,780 – \$136 – \$303**

**Net pay = \$1,341**

(b) <b>Salaries and Wages Expense</b> .....	<b>1,780</b>	
<b>FICA Taxes Payable</b> .....		<b>136</b>
<b>Federal Income Taxes Payable</b> .....		<b>303</b>
<b>Salaries and Wages Payable</b> .....		<b>1,341</b>
(c) <b>Salaries and Wages Payable</b> .....	<b>1,341</b>	
<b>Cash</b> .....		<b>1,341</b>

**\*EXERCISE 10-21**

<b>Payroll Tax Expense</b> .....	<b>244.38</b>	
<b>FICA Taxes Payable</b> .....		<b>137.68</b>
<b>Federal Unemployment Taxes Payable</b> .....		<b>13.77</b>
<b>State Unemployment Taxes Payable</b> .....		<b>92.93</b>



# SOLUTIONS TO PROBLEMS

<b>PROBLEM 10-1A</b>
----------------------

(a)	Jan. 5	Cash.....	22,470	
		Sales Revenue (£22,470 ÷ 107%) .....		21,000
		Sales Taxes Payable		
		(£22,470 – £21,000).....		1,470
	12	Unearned Service Revenue .....	10,000	
		Service Revenue .....		10,000
	14	Sales Taxes Payable .....	5,800	
		Cash .....		5,800
	20	Accounts Receivable .....	32,100	
		Sales Revenue.....		30,000
		Sales Taxes Payable		
		(600 X £50 X 7%).....		2,100
	21	Cash.....	14,000	
		Notes Payable .....		14,000
	25	Cash.....	12,947	
		Sales Revenue (£12,947 ÷ 107%) .....		12,100
		Sales Taxes Payable		
		(£12,947 – £12,100).....		847
(b)	Jan. 31	Interest Expense.....	31	
		Interest Payable .....		31
		(£14,000 X 8% X 1/12 =		
		£93; £93 X 1/3)		

**PROBLEM 10-1A (Continued)**

**(c) Current liabilities**

<b>Notes payable .....</b>	<b>£14,000</b>
<b>Accounts payable.....</b>	<b>52,000</b>
<b>Unearned service revenue (£14,000 – £10,000).....</b>	<b>4,000</b>
<b>Sales taxes payable (£1,470 + £2,100 + £847) .....</b>	<b>4,417</b>
<b>Interest payable .....</b>	<b>31</b>
<b>Total current liabilities.....</b>	<b><u>£74,448</u></b>

<b>PROBLEM 10-2A</b>
----------------------

(a)	Jan. 2	Inventory ..... 30,000 Accounts Payable ..... 30,000	30,000
	Feb. 1	Accounts Payable ..... 30,000 Notes Payable ..... 30,000	30,000
	Mar. 31	Interest Expense (\$30,000 X 6% X 2/12) ..... 300 Interest Payable ..... 300	300
	Apr. 1	Notes Payable ..... 30,000 Interest Payable ..... 300 Cash ..... 30,300	30,300
	July 1	Equipment ..... 48,000 Cash ..... 8,000 Notes Payable ..... 40,000	40,000
	Sept. 30	Interest Expense (\$40,000 X 7% X 3/12) ..... 700 Interest Payable ..... 700	700
	Oct. 1	Notes Payable ..... 40,000 Interest Payable ..... 700 Cash ..... 40,700	40,700
	Dec. 1	Cash ..... 15,000 Notes Payable ..... 15,000	15,000
	Dec. 31	Interest Expense (\$15,000 X 6% X 1/12) ..... 75 Interest Payable ..... 75	75

**PROBLEM 10-2A (Continued)**

(b)

<b>Notes Payable</b>			
<b>4/1</b>	<b>30,000</b>	<b>2/1</b>	<b>30,000</b>
<b>10/1</b>	<b>40,000</b>	<b>7/1</b>	<b>40,000</b>
		<b>12/1</b>	<b>15,000</b>
		<b>12/31 Bal.</b>	<b>15,000</b>

<b>Interest Payable</b>			
<b>4/1</b>	<b>300</b>	<b>3/31</b>	<b>300</b>
<b>10/1</b>	<b>700</b>	<b>9/30</b>	<b>700</b>
		<b>12/31</b>	<b>75</b>
		<b>12/31 Bal.</b>	<b>75</b>

<b>Interest Expense</b>	
<b>3/31</b>	<b>300</b>
<b>9/30</b>	<b>700</b>
<b>12/31</b>	<b>75</b>
<b>12/31 Bal.</b>	<b>1,075</b>

<b>(c)</b>	<b>Current liabilities</b>		
	<b>Notes payable</b> .....	<b>\$15,000</b>	
	<b>Interest payable</b> .....	<u>    <b>75</b></u>	<b>\$15,075</b>

**(d) Total interest is \$1,075**

<b>PROBLEM 10-3A</b>
----------------------

		<b>2014</b>		
(a)	May 1	Cash.....	720,000	
		Bonds Payable.....		720,000
(b)	Dec. 31	Interest Expense.....	8,400	
		Interest Payable		
		(CHF720,000 X 7% X 2/12) .....		8,400
(c)		<b>Non-current Liabilities</b>		
		Bonds Payable, due 2019 .....		CHF720,000
		<b>Current Liabilities</b>		
		Interest Payable.....	CHF	8,400
		<b>2015</b>		
(d)	May 1	Interest Payable.....	8,400	
		Interest Expense		
		(CHF720,000 X 7% X 4/12).....	16,800	
		Cash.....		25,200
(e)	Nov. 1	Interest Expense.....	25,200	
		Cash (CHF720,000 X 7% X 1/2) ..		25,200
(f)	Nov. 1	Bonds Payable.....	720,000	
		Loss on Bond Redemption.....	14,400	
		Cash (CHF720,000 X 1.02).....		734,400

<b>PROBLEM 10-4A</b>
----------------------

<b>(a)</b>		<b>2014</b>		
	Jan. 1	Cash (\$400,000 X 1.05) .....	420,000	
		Bonds Payable .....		420,000

<b>(b)</b>		<b>Non-current Liabilities</b>		
		Bonds payable, due 2024.....		\$418,000

		<b>Current Liabilities</b>		
		Interest payable		
		(\$400,000 X 9% X 1/2) .....		\$ 18,000

<b>(c)</b>		<b>2016</b>		
	Jan. 1	Bonds Payable .....	416,000	
		Loss on Bond Redemption .....	4,000*	
		Cash (\$400,000 X 1.05).....		420,000

\*( $\$420,000 - \$416,000$ )

**PROBLEM 10-5A**

(a) Semiannual Interest Period	Cash Payment	Interest Expense	Reduction of Principal	Principal Balance
Issue Date				R\$800,000
1	R\$58,865	R\$32,000	R\$26,865	773,135
2	58,865	30,925	27,940	745,195
3	58,865	29,808	29,057	716,138
4	58,865	28,646	30,219	685,919
			<u>R\$114,081</u>	

		<b>2013</b>		
Dec. 31	Cash .....		800,000	
	Mortgage Payable.....			800,000
		<b>2014</b>		
June 30	Interest Expense .....		32,000	
	Mortgage Payable .....		26,865	
	Cash.....			58,865
Dec. 31	Interest Expense .....		30,925	
	Mortgage Payable .....		27,940	
	Cash.....			58,865

(c)		<u>12/31/14</u>
	<b>Non-current Liabilities</b>	
	Mortgage payable, due 2023	R\$685,919**
	<b>Current Liabilities</b>	
	Current portion of mortgage payable	R\$ 59,276*

\* (R\$29,057 + R\$30,219)

\*\* (R\$745,195 – R\$29,057 – R\$30,219)

**\*PROBLEM 10-6A**

		<b>2014</b>		
(a)	July 1	Cash .....	5,679,533	
		Bonds Payable .....		5,679,533

**(b) STRIGEL CORPORATION**  
**Bond Premium Amortization**  
**Effective-Interest Method—Semiannual Interest Payments**  
**10% Bonds Issued at 8%**

	(A)	(B)	(C)	(D)
Semi-annual Interest Periods	Interest to Be Paid	Interest Expense	Premium Amortization (A) – (B)	Bond Carrying Value
Issue date				\$5,679,533
1	\$250,000	\$227,181	\$22,819	5,656,714
2	250,000	226,269	23,731	5,632,983
3	250,000	225,319	24,681	5,608,302

	(c) Dec. 31	Interest Expense (\$5,679,533 X 4%) .....	227,181	
		Bonds Payable .....	22,819	
		Interest Payable (\$5,000,000 X 5%) .....		250,000

		<b>2015</b>		
(d)	July 1	Interest Expense [(\$5,679,533 – \$22,819) X 4%] .....	226,269	
		Bonds Payable .....	23,731	
		Cash .....		250,000

	(e) Dec. 31	Interest Expense [(\$5,656,714 – \$23,731) X 4%] .....	225,319	
		Bonds Payable .....	24,681	
		Interest Payable.....		250,000



<b>*PROBLEM 10-7A</b>
-----------------------

(a)	1.		<b>2014</b>			
		July 1	Cash.....	3,375,680		
			Bonds Payable .....			3,375,680
	2.	Dec. 31	Interest Expense			
			(€3,375,680 X 5%).....	168,784		
			Bonds			
			Payable .....			6,784
			Interest Payable			
			(€3,600,000 X 4.5%) .....			162,000
	3.		<b>2015</b>			
		July 1	Interest Expense			
			[(€3,375,680 + €6,784) X 5%].....	169,123		
			Bonds			
			Payable .....			7,123
			Cash .....			162,000
	4.	Dec. 31	Interest Expense			
			[(€3,382,464 + €7,123) X 5%].....	169,479		
			Bonds			
			Payable .....			7,479
			Interest Payable.....			162,000
	(b)		Bonds payable .....			€3,397,066
			*(€3,375,680 + €6,784 + €7,123 + €7,479)			

**\*PROBLEM 10-7A (Continued)**

(c) Dear \_\_\_\_\_:

Thank you for asking me to clarify some points about the bonds issued by Kingston Company.

1. The amount of interest expense reported for 2015 related to these bonds is €338,602 (€169,123 + €169,479).
2. When the bonds are sold at a discount, the effective-interest method will result in less interest expense reported than the straight-line method in 2015. Straight-line interest expense for 2015 is €346,432 [€162,000 + €162,000 + (€11,216 + €11,216)].
3. The total cost of borrowing is €3,464,320 as shown below:

<b>Semiannual interest payments</b>	
(€3,600,000 X 4.5%) = €162,000; €162,000 X 20 .....	€3,240,000
Add: Bond discount (€3,600,000 – €3,375,680) .....	<u>224,320</u>
Total cost of borrowing .....	<u>€3,464,320</u>

4. The total bond interest expense over the life of the bonds is the same under either method of amortization.

If you have other questions, please contact me.

Sincerely,

<b>*PROBLEM 10-8A</b>
-----------------------

(a)		<b>2014</b>			
	Jan. 1		Cash (\$2,000,000 X 1.04).....	2,080,000	
			Bonds Payable.....		2,080,000
(b)	See page 10-44.				
(c)		<b>2014</b>			
	July 1		Interest Expense.....	86,000	
			Bonds Payable		
			(\$80,000 ÷ 20).....	4,000	
			Cash.....		90,000
	Dec. 31		Interest Expense.....	86,000	
			Bonds Payable.....	4,000	
			Interest Payable .....		90,000
		<b>2015</b>			
	Jan. 1		Interest Payable.....	90,000	
			Cash.....		90,000
	July 1		Interest Expense.....	86,000	
			Bonds Payable.....	4,000	
			Cash.....		90,000
	Dec. 31		Interest Expense.....	86,000	
			Bonds Payable.....	4,000	
			Interest Payable .....		90,000
(d)	<b>Non-current Liabilities</b>				
		Bonds payable, due 2024 .....			\$2,064,000
	<b>Current Liabilities</b>				
		Interest payable.....			\$ 90,000

**\*PROBLEM 10-8A (Continued)**

(b)	(A) Interest to Be Paid (4.5% X \$2,000,000)	(B) Interest Expense to Be Recorded (A) – (C)	(C) Premium Amortization (\$80,000 ÷ 20)	(D) Bond Carrying Value
Semiannual Interest Periods				
Issue date				
1	\$90,000	\$86,000	\$4,000	\$2,080,000
2	90,000	86,000	4,000	2,076,000
3	90,000	86,000	4,000	2,072,000
4	90,000	86,000	4,000	2,068,000
				2,064,000

<b>*PROBLEM 10-9A</b>
-----------------------

(a)		<b>2014</b>		
	July 1		Cash (Rs3,000,000 X 103%) .....	3,090,000
			Bonds Payable .....	3,090,000
	Dec. 31		Interest Expense.....	115,500
			Bonds Payable	
			(Rs90,000 ÷ 20) .....	4,500
			Interest Payable	
			(Rs3,000,000 X 8% X 1/2).....	120,000
(b)		<b>2014</b>		
	July 1		Cash (Rs3,000,000 X 96%) .....	2,880,000
			Bonds Payable .....	2,880,000
	Dec. 31		Interest Expense.....	126,000
			Bonds	
			Payable (Rs120,000 ÷ 20) ....	6,000
			Interest Payable	
			(Rs3,000,000 X 8% X 1/2).....	120,000
(c)	<b><u>Premium</u></b>			
	<b>Non-current Liabilities</b>			
			Bonds payable, due 2024 .....	Rs3,085,500
	<b><u>Discount</u></b>			
	<b>Non-current Liabilities</b>			
			Bonds payable, due 2024 .....	Rs2,886,000

<b>*PROBLEM 10-10A</b>
------------------------

		2014			
(a)	Jan. 1	Interest Payable .....	90,000		
		Cash .....		90,000	
(b)	July 1	Interest Expense .....	81,000		
		Bonds Payable			
		(\$180,000 ÷ 20) .....	9,000		
		Cash .....		90,000	
(c)	July 1	Bonds Payable (\$1,200,000 + \$68,400*)	1,268,400		
		Gain on Bond Redemption.....		56,400	
		(\$1,268,400 – \$1,212,000)			
		Cash (\$1,200,000 X 101%) .....		1,212,000	
		*(\$180,000 – \$9,000) X .40 = \$68,400			
(d)	Dec. 31	Interest Expense .....	48,600		
		Bonds Payable .....	5,400**		
		Interest Payable			
		(\$1,800,000 X 6% X 1/2).....		54,000	

\*\*\$180,000 – \$9,000 – \$68,400 = \$102,600;  $\frac{\$102,600}{19} = \$5,400$  or \$9,000 X .60.

<b>PROBLEM 10-1B</b>
----------------------

(a)	Jan. 1	Cash.....	15,000	
		Notes Payable .....		15,000
	5	Cash.....	9,434	
		Sales Revenue (¥9,434 ÷ 106%) .....		8,900
		Sales Taxes Payable (¥9,434 – ¥8,900).....		534
	12	Unearned Service Revenue .....	9,000	
		Service Revenue .....		9,000
	14	Sales Taxes Payable .....	5,800	
		Cash .....		5,800
	20	Accounts Receivable .....	32,648	
		Sales Revenue.....		30,800
		Sales Taxes Payable (700 X ¥44 X 6%).....		1,848
	25	Cash.....	16,536	
		Sales Revenue(¥16,536 ÷ 106%) .....		15,600
		Sales Taxes Payable (¥16,536 – ¥15,600).....		936
(b)	Jan. 31	Interest Expense.....	75	
		Interest Payable (¥15,000 X 6% X 1/12).....		75

**PROBLEM 10-1B (Continued)**

**(c) Current liabilities**

<b>Notes payable .....</b>	<b>¥15,000</b>
<b>Accounts payable.....</b>	<b>42,500</b>
<b>Unearned service revenue (¥15,000 – ¥9,000) .....</b>	<b>6,000</b>
<b>Sales taxes payable (¥534 + ¥1,848 + ¥936) .....</b>	<b>3,318</b>
<b>Interest payable .....</b>	<b>75</b>
<b>Total current liabilities.....</b>	<b><u>¥66,893</u></b>



<b>PROBLEM 10-2B</b>
----------------------

		<b>2014</b>		
(a)	June 1	Cash.....	1,200,000	
		Bonds Payable.....		1,200,000
(b)	Dec. 31	Interest Expense.....	8,000	
		Interest Payable		
		(\$1,200,000 X 8% X 1/12) .....		8,000
(c)		<b>Non-current Liabilities</b>		
		Bonds Payable.....		\$ 1,200,000
		<b>Current Liabilities</b>		
		Interest Payable.....		\$ 8,000
		<b>2015</b>		
(d)	June 1	Interest Payable.....	8,000	
		Interest Expense		
		(\$1,200,000 X 8% X 5/12) .....	40,000	
		Cash.....		48,000
(e)	Dec. 1	Interest Expense.....	48,000	
		Cash (\$1,200,000 X 8% X 1/2)...		48,000
(f)	Dec. 1	Bonds Payable.....	1,200,000	
		Loss on Bond Redemption.....	12,000	
		Cash (\$1,200,000 X 1.01) .....		1,212,000

<b>PROBLEM 10-3B</b>
----------------------

<b>(a)</b>		<b>2014</b>		
	Jan. 1	Cash (R\$300,000 X 1.04).....	<b>312,000</b>	
		Bonds Payable .....		<b>312,000</b>

<b>(b)</b>		<b>Non-current Liabilities</b>		
		Bond payable, due 2024.....		<b>R\$310,800</b>

		<b>Current Liabilities</b>		
		Interest payable (R\$300,000 X 10% X 1/2) .....		<b>R\$ 15,000</b>

<b>(c)</b>		<b>2016</b>		
	Jan. 1	Bonds Payable .....	<b>309,600</b>	
		Loss on Bond Redemption .....	<b>5,400*</b>	
		Cash (R\$300,000 X 1.05) .....		<b>315,000</b>

**\*(R\$315,000 – R\$309,600)**

**PROBLEM 10-4B**

(a)	<u>Semiannual Interest Period</u>	<u>Cash Payment</u>	<u>Interest Expense</u>	<u>Reduction of Principal</u>	<u>Principal Balance</u>
	Issue Date				\$380,000
	1	\$27,961	\$15,200	\$12,761	367,239
	2	27,961	14,690	13,271	353,968
	3	27,961	14,159	13,802	340,166
	4	27,961	13,607	14,354	325,812
				<u>\$54,188</u>	

		<b>2013</b>	
	Dec. 31	Cash .....	380,000
		Mortgage Payable.....	380,000
		<b>2014</b>	
	June 30	Interest Expense .....	15,200
		Mortgage Payable .....	12,761
		Cash.....	27,961
	Dec. 31	Interest Expense .....	14,690
		Mortgage Payable .....	13,271
		Cash.....	27,961

		<u>12/31/14</u>
(c)	<b>Non-current Liabilities</b>	
	Mortgage payable.....	\$325,812**
	<b>Current Liabilities</b>	
	Current portion of mortgage payable .....	\$ 28,156*

\*(\$13,802 + \$14,354)

\*\*(\$353,968 – \$28,156)

**\*PROBLEM 10-5B**

(a) 2014

July 1	Cash .....	4,194,218	
	Bonds Payable .....		4,194,218

(b) **VISNAK SATELLITES**  
**Bond Discount Amortization**  
**Effective-Interest Method—Semiannual Interest Payments**  
**7% Bonds Issued at 8%**

	(A)	(B)	(C)	(D)
Semi-annual Interest Periods	Interest to Be Paid	Interest Expense to Be Recorded	Discount Amortization (B) – (A)	Bond Carrying Value
Issue date				£4,194,218
1	£157,500	£167,769	£10,269	4,204,487
2	157,500	168,179	10,679	4,215,166
3	157,500	168,607	11,107	4,226,273

(c) Dec. 31

	Interest Expense (£4,194,218 X 4%) .....	167,769	
	Bonds Payable .....		10,269
	Interest Payable (£4,500,000 X 7% X 1/2) .....		157,500

(d) 2015

July 1	Interest Expense [(£4,194,218 + £10,269) X 4%] ....	168,179	
	Bonds Payable .....		10,679
	Cash .....		157,500

(e) Dec. 31

	Interest Expense [(£4,204,487 + £10,679) X 4%] ....	168,607	
	Bonds Payable .....		11,107
	Interest Payable .....		157,500

<b>*PROBLEM 10-6B</b>
-----------------------

(a)	1.	2014		
	July 1		Cash.....	4,311,783
			Bonds Payable .....	4,311,783
	2.	Dec. 31	Interest Expense (\$4,311,783 X 2.5%).....	107,795
			Bonds Payable .....	12,205
			Interest Payable (\$4,000,000 X 3%) .....	120,000
	3.	2015		
	July 1		Interest Expense [(\$4,311,783 – \$12,205) X 2.5%]	107,489
			Bonds Payable .....	12,511
			Cash .....	120,000
	4.	Dec. 31	Interest Expense [(\$4,299,578 – \$12,511) X 2.5%]	107,177
			Bonds Payable .....	12,823
			Interest Payable .....	120,000
(b)	Bonds payable .....			4,274,244
	*(\$4,311,783 – \$12,205 – \$12,511 – \$12,823)			

**\*PROBLEM 10-6B (Continued)**

(c) Dear \_\_\_\_\_:

Thank you for asking me to clarify some points about the bonds issued by Keokuk Chemical Company.

1. The amount of interest expense reported for 2015 related to these bonds is \$214,666 ( $\$107,489 + \$107,177$ )
2. When the bonds are sold at a premium, the effective-interest method will result in more interest expense reported than the straight-line method in 2015. Straight-line interest expense for 2015 is \$208,822 [ $\$120,000 + \$120,000 - (\$15,589 + \$15,589)$ ].
3. The total cost of borrowing is as shown below:

Semiannual interest payments	
$(\$4,000,000 \times 6\% \times 1/2) = \$120,000 \times 20$ .....	\$2,400,000
Less: Bond premium ( $\$4,311,783 - \$4,000,000$ ) .....	<u>311,783</u>
Total cost of borrowing .....	<u>\$2,088,217</u>

4. The total bond interest expense over the life of the bonds is the same under either method of amortization.

If you have other questions, please contact me.

Sincerely,

<b>*PROBLEM 10-7B</b>
-----------------------

<b>(a)</b>		<b>2014</b>		
	<b>Jan. 1</b>	<b>Cash (¥5,000,000 X 97%).....</b>	<b>4,850,000</b>	
		<b>Bonds Payable.....</b>		<b>4,850,000</b>

**(b) See page 10-57.**

<b>(c)</b>		<b>2014</b>		
	<b>July 1</b>	<b>Interest Expense.....</b>	<b>203,750</b>	
		<b>Bonds</b>		
		<b>Payable (¥150,000 ÷ 40).....</b>		<b>3,750</b>
		<b>Cash (¥5,000,000 X 8% X 1/2)....</b>		<b>200,000</b>
	<b>Dec. 31</b>	<b>Interest Expense.....</b>	<b>203,750</b>	
		<b>Bonds</b>		
		<b>Payable .....</b>		<b>3,750</b>
		<b>Interest Payable .....</b>		<b>200,000</b>

		<b>2015</b>		
	<b>Jan. 1</b>	<b>Interest Payable.....</b>	<b>200,000</b>	
		<b>Cash.....</b>		<b>200,000</b>
	<b>July 1</b>	<b>Interest Expense.....</b>	<b>203,750</b>	
		<b>Bonds</b>		
		<b>Payable .....</b>		<b>3,750</b>
		<b>Cash (¥5,000,000 X 8% X 1/2)....</b>		<b>200,000</b>
	<b>Dec. 31</b>	<b>Interest Expense.....</b>	<b>203,750</b>	
		<b>Bonds</b>		
		<b>Payable .....</b>		<b>3,750</b>
		<b>Interest Payable .....</b>		<b>200,000</b>

**\*PROBLEM 10-7B (Continued)**

**(d) Non-current Liabilities**

**Bonds payable ..... ¥4,865,000**

**Current Liabilities**

**Interest payable ..... ¥ 200,000**



**\*PROBLEM 10-7B (Continued)**

(b)	(A) Interest to Be Paid (4% X ¥5,000,000)	(B) Interest Expense to Be Recorded (A) + (C)	(C) Discount Amortization (¥150,000 ÷ 40)	(D) Bond Carrying Value
Semiannual Interest Periods				
Issue date				
1	¥200,000	¥203,750	¥3,750	¥4,850,000
2	200,000	203,750	3,750	4,853,750
3	200,000	203,750	3,750	4,857,500
4	200,000	203,750	3,750	4,861,250
				4,865,000

<b>*PROBLEM 10-8B</b>
-----------------------

(a)	Jan. 1	Cash (\$6,000,000 X 102%) .....	6,120,000	
		Bonds Payable .....		6,120,000
	July 1	Interest Expense .....	264,000	
		Bonds Payable		
		(\$120,000 ÷ 20) .....	6,000	
		Cash (\$6,000,000 X 9% X 1/2) ....		270,000
	Dec. 31	Interest Expense .....	264,000	
		Bonds Payable .....	6,000	
		Interest Payable.....		270,000
(b)	Jan. 1	Cash (\$6,000,000 X 96%) .....	5,760,000	
		Bonds Payable .....		5,760,000
	July 1	Interest Expense .....	282,000	
		Bonds		
		Payable (\$240,000 ÷ 20) .....		12,000
		Cash .....		270,000
	Dec. 31	Interest Expense .....	282,000	
		Bonds Payable .....		12,000
		Interest Payable.....		270,000

**\*PROBLEM 10-8B (Continued)**

**(c) Premium**

<b>Non-current Liabilities</b>	
<b>Bonds payable, due 2024 .....</b>	<b>\$6,108,000</b>

<b>Current Liabilities</b>	
<b>Interest payable .....</b>	<b>\$ 270,000</b>

**Discount**

<b>Non-current Liabilities</b>	
<b>Bonds payable, due 2024 .....</b>	<b>\$5,784,000</b>

<b>Current Liabilities</b>	
<b>Interest payable .....</b>	<b>\$ 270,000</b>

<b>*PROBLEM 10-9B</b>
-----------------------

(a)	Jan. 1	Interest Payable .....	84,000	
		Cash .....		84,000
(b)	July 1	Interest Expense .....	88,500	
		Bonds Payable (€90,000 ÷ 20) .....		4,500
		Cash (€2,400,000 X .035).....		84,000
(c)	July 1	Bonds Payable .....	771,500	
		Loss on Bond Redemption .....	52,500	
		Cash (€800,000 X 103%) .....		824,000
		*(€90,000 – €4,500) X 1/3 = €28,500		
		€800,000 – €28,500 = €771,500		
(d)	Dec. 31	Interest Expense .....	59,000	
		Bonds Payable .....		3,000*
		Interest Payable.....		56,000**
		*(€90,000 – €4,500) X 2/3 = €57,000;		
		€57,000 ÷ 19 = €3,000 or		
		€4,500 X 2/3 = €3,000		
		**(€2,400,000 – €800,000 = €1,600,000;		
		€1,600,000 X 3.5% = €56,000)		

**COMPREHENSIVE PROBLEM SOLUTION 10-1**

(a)	1. Interest Payable .....	2,500	
	Cash .....		2,500
	2. Inventory .....	241,100	
	Accounts Payable .....		241,100
	3. Cash .....	481,500	
	Sales Revenue .....		450,000
	Sales Taxes Payable .....		31,500
	Cost of Goods Sold .....	250,000	
	Inventory .....		250,000
	4. Account Payable .....	230,000	
	Cash .....		230,000
	5. Interest Expense .....	2,500	
	Cash .....		2,500
	6. Insurance Expense .....	5,600	
	Prepaid Insurance .....		5,600
	7. Prepaid Insurance .....	12,000	
	Cash .....		12,000
	8. Sales Taxes Payable .....	24,000	
	Cash .....		24,000
	9. Other Operating Expenses .....	91,000	
	Cash .....		91,000
	10. Interest Expense .....	2,500	
	Cash .....		2,500
	Bonds Payable .....	50,000	
	Cash .....		47,000
	Gain on Bond Redemption .....		3,000

**COMPREHENSIVE PROBLEM SOLUTION (Continued)**

11. Cash (\$90,000 X 104%) .....	93,600	
Bonds Payable.....		93,600

**Adjusting Entries**

12. Insurance Expense (\$12,000 X 5/12).....	5,000	
Prepaid Insurance .....		5,000
13. Depreciation Expense (\$43,000 – \$3,000) ÷ 5 ....	8,000	
Accumulated Depreciation–Equipment.		8,000
14. Income Tax Expense .....	26,520	
Income Taxes Payable .....		26,520

**(b) JAMES CORPORATION  
Trial Balance  
12/31/2014**

<u>Account</u>	<u>Debit</u>	<u>Credit</u>
Cash.....	\$194,100	
Inventory .....	16,850	
Prepaid Insurance .....	7,000	
Equipment.....	43,000	
Accumulated Depreciation–Equipment....		\$ 8,000
Accounts Payable .....		24,850
Sales Taxes Payable .....		7,500
Income Taxes Payable .....		26,520
Bonds Payable.....		93,600
Share Capital–Ordinary .....		20,000
Retained Earnings .....		18,600
Sales Revenue .....		450,000
Cost of Goods Sold .....	250,000	
Depreciation Expense .....	8,000	
Insurance Expense.....	10,600	
Other Operating Expenses .....	91,000	
Interest Expense.....	5,000	
Gain on Bond Redemption .....		3,000
Income Tax Expense.....	26,520	
	<u>\$652,070</u>	<u>\$652,070</u>

## COMPREHENSIVE PROBLEM SOLUTION (Continued)

(a) and (b) Optional T accounts

Cash	
Bal. 30,500	2,500
481,500	230,000
93,600	2,500
	12,000
	24,000
	91,000
	2,500
	47,000
Bal. 194,100	

Inventory	
Bal. 25,750	250,000
241,100	
Bal. 16,850	

Prepaid Insurance	
Bal. 5,600	5,600
12,000	5,000
Bal. 7,000	

Equipment	
Bal. 43,000	

Accumulated Depreciation – Equipment	
	8,000

Accounts Payable	
230,000	Bal. 13,750
	241,100
	Bal. 24,850

Interest Payable	
2,500	Bal. 2,500
	Bal. 0

Sales Taxes Payable	
24,000	31,500
	Bal. 7,500

Income Taxes Payable	
	26,520

Bonds Payable	
50,000	Bal. 50,000
	93,600
	Bal. 93,600

Share Capital—Ordinary	
	Bal. 20,000

Retained Earnings	
	Bal. 18,600

Sales Revenue	
	450,000

**COMPREHENSIVE PROBLEM SOLUTION (Continued)**

(a) and (b) (Continued)

**Cost of Goods Sold**

250,000

**Interest Expense**

2,500

2,500

Bal. 5,000

**Depreciation Expense**

8,000

**Gain on Bond Redemption**

3,000

**Insurance Expense**

5,600

5,000

Bal. 10,600

**Income Tax Expense**

26,520

**Other Operating Expenses**

91,000

(c) **JAMES CORPORATION**  
**Income Statement**  
**For the Year Ending 12/31/14**

Sales revenue .....		<b>\$450,000</b>
Cost of goods sold .....		<b>250,000</b>
Gross profit .....		<b>200,000</b>
Operating expenses		
Insurance expense .....	<b>\$10,600</b>	
Depreciation expense .....	<b>8,000</b>	
Other operating expenses .....	<b>91,000</b>	
Total operating expenses .....		<b>109,600</b>
Income from operations .....		<b>90,400</b>
Other income and expense		
Gain on bond redemption .....		<b>3,000</b>
Interest expense .....		<b>5,000</b>
Income before taxes .....		<b>88,400</b>
Income tax expense .....		<b>26,520</b>
Net income .....		<b>\$ 61,880</b>



COMPREHENSIVE PROBLEM SOLUTION (Continued)

JAMES CORPORATION  
Retained Earnings Statement  
For the Year Ending 12/31/14

Retained earnings, 1/1/14.....	\$18,600	
Add: Net income .....	61,880	
	<u>80,480</u>	
Less: Dividends .....		<u>—</u>
Retained earnings, 12/31/14.....		<u>\$80,480</u>

JAMES CORPORATION  
Statement of Financial Position  
12/31/2014

Assets

<b>Property, Plant, and Equipment</b>		
Equipment.....	\$43,000	
Less: Accumulated depreciation .....	<u>8,000</u>	\$ 35,000
<b>Current Assets</b>		
Prepaid insurance .....	7,000	
Inventory .....	16,850	
Cash.....	<u>194,100</u>	
Total current assets.....		<u>217,950</u>
<b>Total assets</b>		<u>\$252,950</u>

Equity and Liabilities

<b>Equity</b>		
Share Capital—Ordinary.....	\$20,000	
Retained earnings .....	<u>80,480</u>	
Total equity.....		\$100,480
<b>Non-current liabilities</b>		
Bonds payable .....	93,600	
<b>Current Liabilities</b>		
Accounts payable.....	\$24,850	
Income taxes payable .....	26,520	
Sales taxes payable .....	<u>7,500</u>	
Total current liabilities .....		<u>58,870</u>
Total liabilities.....		<u>152,470</u>
<b>Total equity and liabilities</b>		<u>\$252,950</u>

**COMPREHENSIVE PROBLEM SOLUTION 10–2**

(a)	<u>Eastland Company</u>	<u>Westside Company</u>
Plant and Equipment	CHF255,300	CHF257,300
Accumulated Depreciation (2.)	(188,375)	(189,850)
Inventory	463,900	515,200
Accounts Receivable	304,700	302,500
Allowance for Doubtful Accounts (1.)	(13,600)	(18,000)
Cash	63,300	48,400
<b>Total Assets</b>	<b><u>CHF885,225</u></b>	<b><u>CHF915,550</u></b>
Equity	CHF367,025*	CHF402,050**
Non-current Liabilities	78,000	66,000
Current Liabilities (3.)	440,200	447,500
<b>Total Equity and Liabilities</b>	<b><u>CHF885,225</u></b>	<b><u>CHF915,550</u></b>

\*CHF442,750 – CHF75,725 (CHF188,375 – CHF112,650) change in accumulated depreciation.

\*\*CHF420,050 – CHF18,000 allowance for doubtful accounts.

(b) Based on a review of the companies and revision of financial statements for purposes of comparability, it can be seen that Westside Company is in a better financial position. However, this claim to the better position is a tenuous one. The amounts within each category in the statement of financial position of each company are very similar.

In terms of short-term liquidity, Westside Company is in a little stronger financial position. Total current assets for Eastland Company are CHF818,300 versus CHF848,100 for Westside. Comparing these to the current liabilities, Westside has a current ratio of 1.90 (CHF 848,100 ÷ CHF447,500) versus 1.86 (CHF818,300 ÷ CHF440,200) for Eastland.

(a) Total current liabilities at December 31, 2010, ~~₩~~39,944,721 million. Samsung's total current liabilities increased by ~~₩~~5,740,297 (~~₩~~39,944,721 – ~~₩~~34,204,424) million over the prior year.

(b) The components of current liabilities for December 31, 2010 are:

Trade and other payables .....	₩16,049,800 million
Short-term borrowing .....	8,429,721
Advance received .....	883,585
With holdings .....	1,052,555
Accrued expenses .....	7,102,427
Income tax payable .....	2,051,452
Current position of long-term borrowings and debentures .....	1,123,934
Provisions .....	2,917,919
Other current liabilities .....	333,328

(c) At December 31, 2010, Samsung's non-current liabilities was ~~₩~~4,994,932 million. There was a ~~₩~~64,769 million increase (~~₩~~4,994,932 – ~~₩~~4,930,163) in non-current liabilities during the year.

The components of current liabilities for December 31, 2010 are:

Long-term trade and other payables .....	₩1,072,661 million
Debentures .....	587,338
Long-term borrowings .....	634,381
Retirement benefit obligation .....	597,829
Deferred income tax liabilities .....	1,652,667
Provisions .....	295,356
Other non-current liabilities .....	154,700

- (a) Nestlé's largest current liability was "Financial debt" at CHF12,617 million. Its total current liabilities were CHF30,146 million. Zetar's largest current liability was "Trade and other payables" at £25,075 thousand. Its total current liabilities were £40,474 thousand.

(b)	(in millions)	Nestlé	Zetar
(1) Working capital		CHF38,997 – CHF30,146 = CHF8,851	£45,670 – £40,474 = £5,196
(1) Current ratio		$\frac{\text{CHF}38,997}{\text{CHF}30,146} = 1.29:1$	$\frac{\text{£}45,670}{\text{£}40,474} = 1.13:1$

- (c) Based on this information, it appears that both are barely liquid. Additional analysis should be done to assess the reason for the low working capital and current ratio.

(d)		Nestlé	Zetar
1. Debt to total assets		$\frac{\text{CHF}49,043}{\text{CHF}111,641} = 43.9\%$	$\frac{\text{£}46,775}{\text{£}93,062} = 50.3\%$
2. Times interest earned		$\frac{\text{CHF}35,384 + \text{CHF}847 + \text{CHF}3,693}{\text{CHF}847} = 47.1 \text{ times}$	$\frac{\text{£}4,482 + \text{£}1,101 + \text{£}1,656}{\text{£}1,101} = 6.6 \text{ times}$

- (e) The higher the percentage of debt to total assets, the greater the risk that a company may be unable to meet its maturing obligations. Zetar's debt to total assets ratio was nearly 15% higher than Nestlé's. The times interest earned ratio provides an indication of a company's ability to meet interest payments. Nestlé's times interest earned ratio is excellent and is more than 7 times greater than Zetar's. However, Zetar should have no difficulty meeting its interest payments.

- (a) In 1924, the Fitch Publishing Company introduced the now familiar “AAA” to “D” ratings scale to meet the growing demand for independent analysis of financial securities.
- (b) The terms “investment grade” and “speculative grade” have established themselves over time as shorthand to describe the categories ‘AAA’ to ‘BBB’ (investment grade) and ‘BB’ to ‘D’ (speculative grade).
- (c) Moody’s and Standard and Poor’s are two other major credit rating agencies.

<b>*(a)</b>	<b>Face value of bonds .....</b>		<b>\$2,400,000</b>
	<b>Proceeds from sale of bonds</b>		
	<b>(\$2,400,000 X .96) .....</b>		<b><u>2,304,000</u></b>
	<b>Discount on bonds payable .....</b>		<b><u>\$ 96,000</u></b>

**Bond discount amortization per year:**  
 $\$96,000 \div 5 = \$19,200$

<b>Face value of bonds .....</b>		<b>\$2,400,000</b>
<b>Amount of original discount .....</b>	<b>\$96,000</b>	
<b>Less: Amortization through January 1, 2014</b>		
<b>(2-year) .....</b>	<b><u>38,400</u></b>	<b><u>57,600</u></b>
<b>Carrying value of bonds, January 1, 2014 .....</b>		<b><u>\$2,342,400</u></b>

<b>(b) 1. Bonds Payable .....</b>	<b>2,342,400</b>	
<b>Gain on Bond Redemption .....</b>		<b>342,400*</b>
<b>Cash .....</b>		<b>2,000,000</b>
<b>(To record redemption of 7%</b>		
<b>bonds)</b>		

**\*\$2,342,000 – \$2,000,000**

<b>2. Cash .....</b>	<b>2,000,000</b>	
<b>Bonds Payable .....</b>		<b>2,000,000</b>
<b>(To record sale of 10-year, 10%</b>		
<b>bonds at par)</b>		

**BYP 10-4 (Continued)**

**(c) Dear President Fleming:**

**The early redemption of the 7%, 5-year bonds results in recognizing a gain of \$342,400 that increases current year net income by the after-tax effect of the gain. The amount of the liabilities on the statement of financial position will be lowered by the issuance of the new bonds and retirement of the 5-year bonds.**

**1. The cash flow of the company as it relates to bonds payable will be adversely affected as follows:**

<b>Annual interest payments on the new issue</b>	
<b>(\$2,000,000 X .10) .....</b>	<b>\$200,000</b>
<b>Annual interest payments on the 5-year bonds</b>	
<b>(\$2,400,000 X .07) .....</b>	<b><u>(168,000)</u></b>
<b>Additional cash outflows per year .....</b>	<b><u>\$ 32,000</u></b>

**2. The amount of interest expense shown on the income statement will be higher as a result of the decision to issue new bonds:**

<b>Annual interest expense on new bonds .....</b>	<b>\$200,000</b>	
<b>Annual interest expense on 7% bonds:</b>		
<b>Interest payment .....</b>	<b>\$168,000</b>	
<b>Discount amortization .....</b>	<b><u>19,200</u></b>	<b><u>(187,200)</u></b>
<b>Additional interest expense per year .....</b>		<b><u>\$ 12,800</u></b>

**These comparisons hold for only the 3-year remaining life of the 7%, 5-year bonds. The company must acknowledge either redemption of the 7% bonds at maturity, January 1, 2017, or refinancing of that issue at that time and consider what interest rates will be in 2017 in evaluating a redemption and issuance in 2014.**

**Sincerely,**

**To: Ron Seiser**  
**From: I. M. Student**  
**Subject: Bond Financing**

**(1) The advantages of bond financing over equity stock financing include:**

- 1. Shareholder control is not affected.**
- 2. Tax savings result.**
- 3. Earnings per share of ordinary shares may be higher.**

**(2) The types of bonds that may be issued are:**

- 1. Secured or unsecured bonds. Secured bonds have specific assets of the issuer pledged as collateral. Unsecured bonds are issued against the general credit of the borrower.**
- 2. Term or serial bonds. Term bonds mature at a single specified date, while serial bonds mature in installments.**
- 3. Registered or bearer bonds. Registered bonds are issued in the name of the owner, while bearer bonds are not.**
- 4. Convertible bonds, which can be converted by the bondholder into ordinary shares.**
- 5. Callable bonds, which are subject to early retirement by the issuer at a stated amount.**

**(3) State laws grant corporations the power to issue bonds after formal approval by the board of directors and shareholders. The terms of the bond issue are set forth in a legal document called a bond indenture. After the bond indenture is prepared, bond certificates are printed.**



(a) The stakeholders in the Wesley case are:

- ▶ Dylan Horn, president, founder, and majority shareholder.
- ▶ Mary Sommers, minority shareholder.
- ▶ Other minority shareholders.
- ▶ Existing creditors (debt holders).
- ▶ Future bondholders.
- ▶ Employees, suppliers, and customers.

(b) The ethical issues:

The desires of the majority shareholder (Dylan Horn) versus the desires of the minority shareholders (Mary Sommers and others).

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

Questions:

Is what Dylan wants to do legal? Is it unethical? Is Dylan's action brash and irresponsible? Who may benefit/suffer if Dylan arranges a high-risk bond issue? Who may benefit/suffer if Mary Sommers gains control of Wesley?

(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.

## GAAP EXERCISES

### GAAP 10-1

The similarities between GAAP and IFRS include: (1) the basic definition of a liability, (2) both classify liabilities as current or non-current on the face of the statement of financial position, and (3) both use the same basic calculation for bond valuation.

Differences between GAAP and IFRS include: (1) GAAP allows straight line amortization of bond discounts and premiums, but IFRS requires the effective-interest method in all cases, (2) IFRS does not isolate unamortized bond discount or premium in a separate account, (3) IFRS splits the proceeds from convertible bonds into debt and equity components, and (4) GAAP uses a “rules-based” approach to account for liabilities while IFRS is more conceptual in its approach.

### GAAP 10-2

(a)	Jan.	1	Cash (\$2,000,000 X .97).....	1,940,000	
			Discount on Bonds Payable.....	60,000	
			Bonds Payable.....		2,000,000
(b)	Jan.	1	Cash (\$2,000,000 X 1.04).....	2,080,000	
			Bonds Payable.....		2,000,000
			Premium on Bonds Payable.....		80,000

### GAAP 10-3

(a)	Cash (£4,000,000 X .99).....	3,960,000	
	Discount on Bonds Payable.....	40,000	
	Bonds Payable.....		4,000,000
(b)	Cash (£4,000,000 X .99).....	3,960,000	
	Bonds Payable.....		3,800,000
	Share Premium—Conversion Equity.....		160,000

**GAAP10-4 INTERNATIONAL FINANCIAL REPORTING PROBLEM**

- (a) Tootsie Roll's total current liabilities at December 31, 2010 were \$58,505 thousand. Current liabilities increased by \$2,439 (\$58,505 – \$56,066) during 2010.
- (b) Accounts payable were \$9,791 at December 31, 2010.
- (c) The components of total current liabilities, other than Accounts payable, were:

Dividends Payable .....	\$ 4,529
Accrued Liabilities .....	44,185

