CHAPTER 14

Accounting and Reporting of Long-Term Liabilities

TRUE-FALSE—Conceptual

Answer	No.	Description
T	1.	Bond interest payments.
F	2.	Debenture bonds.
T	3.	Definition of serial bonds.
F	4.	Market rate vs. coupon rate.
F	5.	Definition of stated interest rate.
T	6.	Stated rate and coupon rate.
F	7.	Amortization of premium and discount.
F	8.	Issuance of bonds.
F	9.	Interest paid vs. interest expense.
T	10.	Accounting for bond issue costs.
T	11.	Refunding of bond issue.
F	12.	Long-term notes payable.
T	13.	Implicit interest rate.
T	14.	Imputation and imputed interest rate.
T	15.	Off-balance-sheet financing.
T	16.	Debt to total assets ratio.
F	17.	Refinancing long-term debt.
F	18.	Times interest earned ratio.
F	*19.	Loss recognized on impaired loan.
F	*20.	Gain/loss in troubled debt restructuring.

MULTIPLE CHOICE—Conceptual

Answer	No.	Description
a	21.	Liability identification.
a	22.	Bond terms.
b	23.	Definition of "debenture bonds."
a	[P]24.	Definition of bearer bonds.
d	[S]25.	Definition of income bonds.
a	[S]26.	Effective-interest vs. straight-line method.
d	[S]27.	Interest rate of the bond indenture.
d	28.	Rate of interest earned by the bondholders.
d	29.	Calculating the issue price of bonds.
d	30.	Calculating the issue price of bonds.
b	31.	Premium and interest rates.
a	32.	Interest and discount amortization.
d	33.	Effective-interest amortization method.
d	34.	Impact of effective-interest method.
c	35.	Recording bonds issued between interest dates.
d	36.	Bonds issued at other than an interest date.
d	37.	Classification of bond issuance costs.
c	38.	Bond issuance costs.

MULTIPLE CHOICE—Conceptual (cont.)

Answer	No.	Description
b	39.	Classification of treasury bonds.
d	40.	Early extinguishment of bonds payable.
d	41.	Gain or loss on extinguishment of debt.
c	P42.	In-substance defeasance.
c	P43.	Reporting long-term debt.
a	S44.	Debt instrument exchanged for property.
d	45.	Valuation of note issued in noncash transaction.
d	46.	Stated interest rate of note.
c	47.	Accounting for discount on notes payable.
d	48.	Off-balance-sheet financing.
c	S49.	Off-balance-sheet financing.
d	S50.	Long-term debt maturing within one year.
d	51.	Required bond disclosures.
d	52.	Long-term debt disclosures.
c	53.	Times interest earned ratio.
c.	54.	Debt to total assets ratio.
c	*55.	Modification of terms in debt restructure.
d	*56.	Gain/loss on troubled debt restructuring.
b	*57.	Gain/loss on troubled debt restructuring.
b	*58.	Interest and troubled debt restructuring.
c	*59.	Creditor's calculations for modification of terms.

P These questions also appear in the Problem-Solving Survival Guide.
S These questions also appear in the Study Guide.
* This topic is dealt with in an Appendix to the chapter.

MULTIPLE CHOICE—Computational

Answer	No.	Description
a	60.	Calculate the present value of bond principal.
b	61.	Calculate the present value of bond interest.
a	62.	Determine the issue price of bonds.
c	63.	Proceeds from bond issuance.
c	64.	Bonds issued between interest dates.
c	65.	Proceeds from bond issuance.
c	66.	Bonds issued between interest dates.
c	67.	Effective-interest method interest expense.
a	68.	Effective-interest method carrying value.
d	69.	Straight-line method carrying value.
d	70.	Straight-line amortization/interest expense.
c	71.	Effective-interest method interest expense.
a	72.	Effective-interest method carrying value.
d	73.	Straight-line method carrying value.
d	74.	Straight-line method amortization/interest expense.
b	75.	Interest expense using effective-interest method.
c	76.	Interest expense using effective-interest method.
c	77.	Calculate gain on retirement of bonds.
b	78.	Calculate gain on retirement of bonds.

MULTIPLE CHOICE—Computational (cont.)

Answer	No.	Description
b	79.	Calculate loss on retirement of bonds.
b	80.	Bond retirement with call premium.
b	81.	Calculate loss on retirement of bonds.
b	82.	Early extinguishment of debt.
b	83.	Early extinguishment of debt.
a	84.	Interest on noninterest-bearing note.
c	85.	Interest on installment note payable.
b	86.	Determine balance of discount on notes payable.
d	87.	Calculate times interest earned ratio.
b	*88.	Transfer of equipment in debt settlement.
d	*89.	Recognizing gain on debt restructure.
a	*90.	Interest and troubled debt restructuring.

MULTIPLE CHOICE—CPA Adapted

Answer	No.	Description
a	91.	Determine proceeds from bond issue.
b	92.	Determine unamortized bond premium.
a	93.	Determine unamortized bond discount.
c	94.	Calculate bond interest expense.
a	95.	Calculate loss on retirement of bonds.
d	96.	Calculate loss on retirement of bonds.
d	97.	Calculate gain on retirement of bonds.
c	98.	Determine carrying value of bonds to be retired.
c	99.	Carrying value of bonds with call provision.
a	100.	Classification of gain from debt refunding.
d	*101.	Classification of gain from troubled debt restructuring.

EXERCISES

Item	Description
E14-102	Terms related to long-term debt.
E14-103	Bond issue price and premium amortization.
E14-104	Amortization of discount or premium.
E14-105	Entries for bonds payable.
E14-106	Retirement of bonds.
E14-107	Early extinguishment of debt.
*E14-108	Accounting for a troubled debt settlement.
*E14-109	Accounting for troubled debt restructuring.
*E14-110	Accounting for troubled debt.

PROBLEMS

Item	Description
P14-111	Bond discount amortization.
P14-112	Bond interest and discount amortization.
P14-113	Entries for bonds payable.
P14-114	Entries for bonds payable.
*P14-115	Accounting for a troubled debt settlement.

CHAPTER LEARNING OBJECTIVES

1. Describe the formal procedures associated with issuing long-term debt.
2. Identify various types of bond issues.
3. Describe the accounting valuation for bonds at date of issuance.
4. Apply the methods of bond discount and premium amortization.
5. Describe the accounting for the extinguishment of debt.
6. Explain the accounting for long-term notes payable.
7. Explain the reporting of off-balance-sheet financing arrangements.
8. Indicate how to present and analyze long-term debt.

*9. Describe the accounting for a loan impairment.

*10. Describe the accounting for debt restructuring.

SUMMARY OF LEARNING OBJECTIVES BY QUESTIONS

Item	Type	Item	Type	Item	Type	Item	Type	Item	Type	Item	Type	Item	Type
Learning Objective 1													
1.	TF	21.	MC	22.	MC								
Learning Objective 2													
2.	TF	3.	TF	23.	MC	[P]24.	MC	[S]25.	MC				
Learning Objective 3													
4.	TF	[S]26.	MC	29.	MC	61.	MC	64.	MC	102.	E		
5.	TF	27.	MC	30.	MC	62.	MC	65.	MC	103.	E		
6.	TF	28.	MC	60.	MC	63.	MC	66.	MC	111.	P		
Learning Objective 4													
7.	TF	32.	MC	37.	MC	69.	MC	74.	MC	93.	MC	105.	E
8.	TF	33.	MC	38.	MC	70.	MC	75.	MC	94.	MC	111.	P
9.	TF	34.	MC	39.	MC	71.	MC	76.	MC	102.	E	112.	P
10.	TF	35.	MC	67.	MC	72.	MC	91.	MC	103.	E	113.	P
31.	MC	36.	MC	68.	MC	73.	MC	92.	MC	104.	E	114.	P
Learning Objective 5													
11.	TF	77.	MC	81.	MC	96.	MC	100.	MC	107.	E		
40.	MC	78.	MC	82.	MC	97.	MC	102.	E	113.	P		
41.	MC	79.	MC	83.	MC	98.	MC	105.	E				
[P]42.	MC	80.	MC	95.	MC	99.	MC	106.	E				
Learning Objective 6													
12.	TF	14.	TF	[S]44.	MC	46.	MC	84.	MC	86.	MC		
13.	TF	[P]43.	MC	45.	MC	47.	MC	85.	MC				
Learning Objective 7													
15.	TF	48.	MC	[S]49.	MC								
Learning Objective 8													
16.	TF	18.	TF	51.	MC	53.	MC	87.	MC				
17.	TF	[S]50.	MC	52.	MC	54.	MC						
Learning Objective *10													
19.	TF	56.	MC	59.	MC	90.	MC	109.	E				
20.	TF	57.	MC	88.	MC	101.	MC	110.	E				
55.	MC	58.	MC	89.	MC	108.	E	115.	P				

Note: TF = True-False; MC = Multiple Choice; E = Exercise; P = Problem

TRUE FALSE—Conceptual

1. Companies usually make bond interest payments semiannually, although the interest rate is generally expressed as an annual rate.

2. A mortgage bond is referred to as a debenture bond.

3. Bond issues that mature in installments are called serial bonds.

4. If the market rate is greater than the coupon rate, bonds will be sold at a premium.

5. The interest rate written in the terms of the bond indenture is called the effective yield or market rate.

6. The stated rate is the same as the coupon rate.

7. Amortization of a premium increases bond interest expense, while amortization of a discount decreases bond interest expense.

8. A bond may only be issued on an interest payment date.

9. The cash paid for interest will always be greater than interest expense when using effective-interest amortization for a bond.

10. Bond issue costs are capitalized as a deferred charge and amortized to expense over the life of the bond issue.

11. The replacement of an existing bond issue with a new one is called refunding.

12. If a long-term note payable has a stated interest rate, that rate should be considered to be the effective rate.

13. The implicit interest rate is the rate that equates the cash received with the amounts received in the future.

14. The process of interest-rate approximation is called imputation, and the resulting interest rate is called an imputed interest rate.

15. Off-balance-sheet financing is an attempt to borrow monies in such a way to minimize the reporting of debt on the balance sheet.

16. The debt to total assets ratio will go up if an equal amount of assets and liabilities are added to the balance sheet.

17. If a company plans to refinance long-term debt or retire it from a bond retirement fund, it should report the debt as current.

18. The times interest earned ratio is computed by dividing income before interest expense by interest expense.

*19. The loss to be recognized by a creditor on an impaired loan is the difference between the investment in the loan and the expected undiscounted future cash flows from the loan.

*20. In a troubled debt restructuring, the loss recognized by the creditor will equal the gain recognized by the debtor.

True False Answers—Conceptual

Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.
1.	T	6.	T	11.	T	16.	T
2.	F	7.	F	12.	F	17.	F
3.	T	8.	F	13.	T	18.	F
4.	F	9.	F	14.	T	19.	F
5.	F	10.	T	15.	T	20.	F

MULTIPLE CHOICE—Conceptual

21. An example of an item which is not a liability is
    a. dividends payable in stock.
    b. advances from customers on contracts.
    c. accrued estimated warranty costs.
    d. the portion of long-term debt due within one year.

22. The covenants and other terms of the agreement between the issuer of bonds and the lender are set forth in the
    a. bond indenture.
    b. bond debenture.
    c. registered bond.
    d. bond coupon.

23. The term used for bonds that are unsecured as to principal is
    a. junk bonds.
    b. debenture bonds.
    c. indebenture bonds.
    d. callable bonds.

P24. Bonds for which the owners' names are *not* registered with the issuing corporation are called
    a. bearer bonds.
    b. term bonds.
    c. debenture bonds.
    d. secured bonds.

S25. Bonds that pay no interest unless the issuing company is profitable are called
    a. collateral trust bonds.
    b. debenture bonds.
    c. revenue bonds.
    d. income bonds.

S26. If bonds are issued initially at a premium and the effective-interest method of amortization is used, interest expense in the earlier years will be
    a. greater than if the straight-line method were used.
    b. greater than the amount of the interest payments.

c the same as if the straight-line method were used.
d. less than if the straight-line method were used.

27. The interest rate written in the terms of the bond indenture is known as the
   a. coupon rate.
   b. nominal rate.
   c. stated rate.
   d. coupon rate, nominal rate, or stated rate.

28. The rate of interest actually earned by bondholders is called the
   a. stated rate.
   b. yield rate.
   c. effective rate.
   d. effective, yield, or market rate.

Use the following information for questions 29 and 30:

Cox Co. issued $100,000 of ten-year, 10% bonds that pay interest semiannually. The bonds are sold to yield 8%.

29. One step in calculating the issue price of the bonds is to multiply the principal by the table value for
   a. 10 periods and 10% from the present value of 1 table.
   b. 20 periods and 5% from the present value of 1 table.
   c. 10 periods and 8% from the present value of 1 table.
   d. 20 periods and 4% from the present value of 1 table.

30. Another step in calculating the issue price of the bonds is to
   a. multiply $10,000 by the table value for 10 periods and 10% from the present value of an annuity table.
   b. multiply $10,000 by the table value for 20 periods and 5% from the present value of an annuity table.
   c. multiply $10,000 by the table value for 20 periods and 4% from the present value of an annuity table.
   d. none of these.

31. Stone, Inc. issued bonds with a maturity amount of $200,000 and a maturity ten years from date of issue. If the bonds were issued at a premium, this indicates that
   a. the effective yield or market rate of interest exceeded the stated (nominal) rate.
   b. the nominal rate of interest exceeded the market rate.
   c. the market and nominal rates coincided.
   d. no necessary relationship exists between the two rates.

32. If bonds are initially sold at a discount and the straight-line method of amortization is used, interest expense in the earlier years will
    a. exceed what it would have been had the effective-interest method of amortization been used.
    b. be less than what it would have been had the effective-interest method of amortization been used.
    c. be the same as what it would have been had the effective-interest method of amortization been used.
    d. be less than the stated (nominal) rate of interest.

33. Under the effective-interest method of bond discount or premium amortization, the periodic interest expense is equal to
    a. the stated (nominal) rate of interest multiplied by the face value of the bonds.
    b. the market rate of interest multiplied by the face value of the bonds.
    c. the stated rate multiplied by the beginning-of-period carrying amount of the bonds.
    d. the market rate multiplied by the beginning-of-period carrying amount of the bonds.

34. When the effective-interest method is used to amortize bond premium or discount, the periodic amortization will
    a. increase if the bonds were issued at a discount.
    b. decrease if the bonds were issued at a premium.
    c. increase if the bonds were issued at a premium.
    d. increase if the bonds were issued at either a discount or a premium.

35. If bonds are issued between interest dates, the entry on the books of the issuing corporation could include a
    a. debit to Interest Payable.
    b. credit to Interest Receivable.
    c. credit to Interest Expense.
    d. credit to Unearned Interest.

36. When the interest payment dates of a bond are May 1 and November 1, and a bond issue is sold on June 1, the amount of cash received by the issuer will be
    a. decreased by accrued interest from June 1 to November 1.
    b. decreased by accrued interest from May 1 to June 1.
    c. increased by accrued interest from June 1 to November 1.
    d. increased by accrued interest from May 1 to June 1.

37. Theoretically, the costs of issuing bonds could be
    a. expensed when incurred.
    b. reported as a reduction of the bond liability.
    c. debited to a deferred charge account and amortized over the life of the bonds.
    d. any of these.

38. The printing costs and legal fees associated with the issuance of bonds should
    a. be expensed when incurred.
    b. be reported as a deduction from the face amount of bonds payable.
    c. be accumulated in a deferred charge account and amortized over the life of the bonds.
    d. not be reported as an expense until the period the bonds mature or are retired.

39. Treasury bonds should be shown on the balance sheet as
   a. an asset.
   b. a deduction from bonds payable issued to arrive at net bonds payable and outstanding.
   c. a reduction of stockholders' equity.
   d. both an asset and a liability.

40. An early extinguishment of bonds payable, which were originally issued at a premium, is made by purchase of the bonds between interest dates. At the time of reacquisition
   a. any costs of issuing the bonds must be amortized up to the purchase date.
   b. the premium must be amortized up to the purchase date.
   c. interest must be accrued from the last interest date to the purchase date.
   d. all of these.

41. The generally accepted method of accounting for gains or losses from the early extinguishment of debt treats any gain or loss as
   a. an adjustment to the cost basis of the asset obtained by the debt issue.
   b. an amount that should be considered a cash adjustment to the cost of any other debt issued over the remaining life of the old debt instrument.
   c. an amount received or paid to obtain a new debt instrument and, as such, should be amortized over the life of the new debt.
   d. a difference between the reacquisition price and the net carrying amount of the debt which should be recognized in the period of redemption.

P42. "In-substance defeasance" is a term used to refer to an arrangement whereby
   a. a company gets another company to cover its payments due on long-term debt.
   b. a governmental unit issues debt instruments to corporations.
   c. a company provides for the future repayment of a long-term debt by placing purchased securities in an irrevocable trust.
   d. a company legally extinguishes debt before its due date.

P43. A corporation borrowed money from a bank to build a building. The long-term note signed by the corporation is secured by a mortgage that pledges title to the building as security for the loan. The corporation is to pay the bank $80,000 each year for 10 years to repay the loan. Which of the following relationships can you expect to apply to the situation?
   a. The balance of mortgage payable at a given balance sheet date will be reported as a long-term liability.
   b. The balance of mortgage payable will remain a constant amount over the 10-year period.
   c. The amount of interest expense will decrease each period the loan is outstanding, while the portion of the annual payment applied to the loan principal will increase each period.
   d. The amount of interest expense will remain constant over the 10-year period.

S44. A debt instrument with no ready market is exchanged for property whose fair market value is currently indeterminable. When such a transaction takes place
   a. the present value of the debt instrument must be approximated using an imputed interest rate.
   b. it should not be recorded on the books of either party until the fair market value of the property becomes evident.
   c. the board of directors of the entity receiving the property should estimate a value for the property that will serve as a basis for the transaction.
   d. the directors of both entities involved in the transaction should negotiate a value to be assigned to the property.

45. When a note payable is issued for property, goods, or services, the present value of the note is measured by
   a. the fair value of the property, goods, or services.
   b. the market value of the note.
   c. using an imputed interest rate to discount all future payments on the note.
   d. any of these.

46. When a note payable is exchanged for property, goods, or services, the stated interest rate is presumed to be fair unless
   a. no interest rate is stated.
   b. the stated interest rate is unreasonable.
   c. the stated face amount of the note is materially different from the current cash sales price for similar items or from current market value of the note.
   d. any of these.

47. Discount on Notes Payable is charged to interest expense
   a. equally over the life of the note.
   b. only in the year the note is issued.
   c. using the effective-interest method.
   d. only in the year the note matures.

48. Which of the following is an example of "off-balance-sheet financing"?
   1. Non-consolidated subsidiary.
   2. Special purpose entity.
   3. Operating leases.
   a. 1
   b. 2
   c. 3
   d. All of these are examples of "off-balance-sheet financing."

S49. When a business enterprise enters into what is referred to as off-balance-sheet financing, the company
   a. is attempting to conceal the debt from shareholders by having no information about the debt included in the balance sheet.
   b. wishes to confine all information related to the debt to the income statement and the statement of cash flow.
   c. can enhance the quality of its financial position and perhaps permit credit to be obtained more readily and at less cost.
   d. is in violation of generally accepted accounting principles.

S50. Long-term debt that matures within one year and is to be converted into stock should be reported
   a. as a current liability.
   b. in a special section between liabilities and stockholders' equity.
   c. as noncurrent.
   d. as noncurrent and accompanied with a note explaining the method to be used in its liquidation.

51. Which of the following must be disclosed relative to long-term debt maturities and sinking fund requirements?
   a. The present value of future payments for sinking fund requirements and long-term debt maturities during each of the next five years.
   b. The present value of scheduled interest payments on long-term debt during each of the next five years.
   c. The amount of scheduled interest payments on long-term debt during each of the next five years.
   d. The amount of future payments for sinking fund requirements and long-term debt maturities during each of the next five years.

52. Note disclosures for long-term debt generally include all of the following *except*
   a. assets pledged as security.
   b. call provisions and conversion privileges.
   c. restrictions imposed by the creditor.
   d. names of specific creditors.

53. The times interest earned ratio is computed by dividing
   a. net income by interest expense.
   b. income before taxes by interest expense.
   c. income before income taxes and interest expense by interest expense.
   d. net income and interest expense by interest expense.

54. The debt to total assets ratio is computed by dividing
   a. current liabilities by total assets.
   b. long-term liabilities by total assets.
   c. total liabilities by total assets.
   d. total assets by total liabilities.

*55. In a troubled debt restructuring in which the debt is continued with modified terms and the carrying amount of the debt is less than the total future cash flows,
   a. a loss should be recognized by the debtor.
   b. a gain should be recognized by the debtor.
   c. a new effective-interest rate must be computed.
   d. no interest expense or revenue should be recognized in the future.

*56. A troubled debt restructuring will generally result in a
   a. loss by the debtor and a gain by the creditor.
   b. loss by both the debtor and the creditor.
   c. gain by both the debtor and the creditor.
   d. gain by the debtor and a loss by the creditor.

*57. In a troubled debt restructuring in which the debt is settled by a transfer of assets with a fair market value less than the carrying amount of the debt, the debtor would recognize
   a. no gain or loss on the settlement.
   b. a gain on the settlement.
   c. a loss on the settlement.
   d. none of these.

*58. In a troubled debt restructuring in which the debt is continued with modified terms, a gain should be recognized at the date of restructure, but no interest expense should be recognized over the remaining life of the debt, whenever the
a. carrying amount of the pre-restructure debt is less than the total future cash flows.
b. carrying amount of the pre-restructure debt is greater than the total future cash flows.
c. present value of the pre-restructure debt is less than the present value of the future cash flows.
d. present value of the pre-restructure debt is greater than the present value of the future cash flows.

*59. In a troubled debt restructuring in which the debt is continued with modified terms and the carrying amount of the debt is less than the total future cash flows, the creditor should
a. compute a new effective-interest rate.
b. not recognize a loss.
c. calculate its loss using the historical effective rate of the loan.
d. calculate its loss using the current effective rate of the loan.

Multiple Choice Answers—Conceptual

Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.	Item	Ans.
21.	a	27.	d	33.	d	39.	b	45.	d	51.	d	*57.	b
22.	a	28.	d	34.	d	40.	d	46.	d	52.	d	*58.	b
23.	b	29.	d	35.	c	41.	d	47.	c	53.	c	*59.	c
24.	a	30.	d	36.	d	42.	c	48.	d	54.	c		
25.	d	31.	b	37.	d	43.	c	49.	c	*55.	c		
26.	a	32.	a	38.	c	44.	a	50.	d	*56.	d		

Solutions to those Multiple Choice questions for which the answer is "none of these."

30. multiply $5,000 by the table value for 20 periods and 4% from the present value of an annuity table.

MULTIPLE CHOICE—Computational

Use the following information for questions 60 through 62:

On January 1, 2007, Bleeker Co. issued eight-year bonds with a face value of $1,000,000 and a stated interest rate of 6%, payable semiannually on June 30 and December 31. The bonds were sold to yield 8%. Table values are:

Present value of 1 for 8 periods at 6%	.627
Present value of 1 for 8 periods at 8%	.540
Present value of 1 for 16 periods at 3%	.623
Present value of 1 for 16 periods at 4%	.534
Present value of annuity for 8 periods at 6%	6.210
Present value of annuity for 8 periods at 8%	5.747
Present value of annuity for 16 periods at 3%	12.561
Present value of annuity for 16 periods at 4%	11.652

60. The present value of the principal is

a. $534,000.
b. $540,000.
c. $623,000.
d. $627,000.

61. The present value of the interest is
a. $344,820.
b. $349,560.
c. $372,600.
d. $376,830.

62. The issue price of the bonds is
a. $883,560.
b. $884,820.
c. $889,560.
d. $999,600.

63. Limeway Company issues $5,000,000, 6%, 5-year bonds dated January 1, 2007 on January 1, 2007. The bonds pay interest semiannually on June 30 and December 31. The bonds are issued to yield 5%. What are the proceeds from the bond issue?

	2.5%	3.0%	5.0%	6.0%
Present value of a single sum for 5 periods	.88385	.86261	.78353	.74726
Present value of a single sum for 10 periods	.78120	.74409	.61391	.55839
Present value of an annuity for 5 periods	4.64583	4.57971	4.32948	4.21236
Present value of an annuity for 10 periods	8.75206	8.53020	7.72173	7.36009

a. $5,000,000
b. $5,216,494
c. $5,218,809
d. $5,217,308

64. Amstop Company issues $20,000,000 of 10-year, 9% bonds on March 1, 2007 at 97 plus accrued interest. The bonds are dated January 1, 2007, and pay interest on June 30 and December 31. What is the total cash received on the issue date?
a. $19,400,000
b. $20,450,000
c. $19,700,000
d. $19,100,000

65. Houghton Company issues $10,000,000, 6%, 5-year bonds dated January 1, 2007 on January 1, 2007. The bonds pays interest semiannually on June 30 and December 31. The bonds are issued to yield 5%. What are the proceeds from the bond issue?

	2.5%	3.0%	5.0%	6.0%
Present value of a single sum for 5 periods	.88385	.86261	.78353	.74726
Present value of a single sum for 10 periods	.78120	.74409	.61391	.55839
Present value of an annuity for 5 periods	4.64583	4.57971	4.32948	4.21236
Present value of an annuity for 10 periods	8.75206	8.53020	7.72173	7.36009