

BE14-6 On January 1, 2014, JWS Corporation issued \$600,000 of 7% bonds, due in 10 years. The bonds were issued for \$559,224, and pay interest **each July 1 and January 1**. JWS uses the effective-interest method. Prepare the company's journal entries for **(a)** the January 1 issuance, **(b)** the July 1 interest payment, and **(c)** the December 31 adjusting entry. Assume an effective-interest rate of 8%.

(a)	Cash.....	559,224	
	Discount on Bonds Payable	40,776	
	Bonds Payable		600,000
(b)	Interest Expense (\$559,224 X 8% X 6/12).....	22,369	
	Cash (\$600,000 X 7% X 6/12)		21,000
	Discount on Bonds Payable		1,369

discount				Balance sheet			
Jan. 1	40,776	Dec. 31	1369			Long term liabilities	
Bal.	39407					Bonds payable	600000
						- discount on bonds payable	(39407)
						Carrying value	560593

Or carrying value= 559224+ 1369= 560593

(c)	Interest Expense (\$560,593* X 8% X 6/12).....	22,424	
	Interest Payable		21,000
	Discount on Bonds Payable		1,424

BE14-7 Assume the bonds in BE14-6 were issued for \$644,636 and the effective-interest rate is 6%. Prepare the company's journal entries for **(a)** the January 1 issuance, **(b)** the July 1 interest payment, and **(c)** the December 31 adjusting entry.

(a)	Cash.....	644,636	
	Bonds Payable		600,000
	Premium on Bonds Payable		44,636
(b)	Interest Expense (\$644,636 X 6% X 6/12).....	19,339	
	Premium on Bonds Payable (21000-19339).....	1,661	
	Cash (\$600,000 X 7% X 6/12)		21,000

Premium				Balance sheet			
Dec. 31	1,661	Jan. 1	44636			Long term liabilities	
		Bal.	<u>42975</u>			Bonds payable	600000
						+premium on bonds payable	<u>42975</u>
						Carrying value	642975

Or carrying value= 644636- 1661= 642975

(c)	Interest Expense (\$642,975* X 6% X 6/12).....	19,289	
	Premium on Bonds Payable.....	1,711	
	Interest Payable		21,000

BE14-8 Teton Corporation issued \$600,000 of 7% bonds on **November 1**, 2014, for \$644,636. The bonds were dated November 1, 2014, and mature in 10 years, with interest payable each **May 1** and **November 1**. Teton uses the effective-interest method with an effective rate of 6%. Prepare Teton's December 31, 2014, adjusting entry.

Interest Expense (\$644,636 X 6% X 2/12).....	6,446	
Premium on Bonds Payable.....	554	
Interest Payable (\$600,000 X 7% X 2/12).....		7,000

BE14-9 At December 31, 2014, Hiyasaki Corporation has the following account balances:

Bonds payable, due January 1, 2023	\$2,000,000
Discount on bonds payable	88,000
Interest payable	80,000

Show how the above accounts should be presented on the December 31, 2014, balance sheet, including the proper classifications.

Current liabilities	
Bond Interest Payable.....	<u>\$ 80,000</u>
Long-term liabilities	
Bonds Payable, due January 1, 2023.....	\$2,000,000
Less: Discount on Bonds Payable.....	<u>(88,000)</u>
	<u>\$1,912,000</u>

BE14-12 Coldwell, Inc. issued a \$100,000, 4-year, 10% note at face value to Flint Hills Bank on January 1, 2014, and received \$100,000 cash. The note requires annual interest payments each December 31. Prepare Coldwell's journal entries to record **(a)** the issuance of the note and **(b)** the December 31 interest payment

(a)	Cash.....	100,000	
	Notes Payable		100,000
(b)	Interest Expense	10,000	
	Cash (\$100,000 X 10%).....		10,000

BE14-13 Samson Corporation issued a **4-year, \$75,000, zero-interest-bearing** note to Brown Company on January 1, 2014, and received cash of \$47,664. The implicit interest rate is 12%. Prepare Samson's journal entries for **(a)** the January 1 issuance and **(b)** the December 31 recognition of interest.

(a)	Cash.....	47,664	
	Discount on Notes Payable.....	27,336	
	Notes Payable		75,000
(b)	Interest Expense	5,720	
	Discount on Notes Payable (\$47,664 X 12%)		5,720

Discount				Balance sheet			
Jan 1.	27336	Dec.31	5720			Long term liabilities	
Bal.	<u>21616</u>					Notes payable	75000
						-discount on bonds payable	<u>(21616)</u>
						Carrying value	53384

(b)	Interest Expense	6,406	
	Discount on Notes Payable (\$53,384 X 12%)		6,406

Discount				Balance sheet			
Jan 1.	27336	Dec.31	5720			Long term liabilities	
		Dec. 31	6406			Notes payable	75000
Bal.	<u>15210</u>					-discount on bonds payable	<u>(15210)</u>
						Carrying value	59790

(b)	Interest Expense	7,175	
	Discount on Notes Payable (\$59,790 X 12%)		7,175

Discount				Balance sheet			
Jan 1.	27336	Dec.31	5720			<u>Long term liabilities</u>	
		Dec. 31	6406			Notes payable	75000
		Dec. 31	7175			-discount on bonds payable	<u>(8035)</u>
Bal.	<u>8035</u>					Carrying value	66965

(b)	Interest Expense	8,035	
	Discount on Notes Payable (\$66,965 X 12%)		8,035

Discount				Balance sheet			
Jan 1.	27336	Dec.31	5720			<u>Long term liabilities</u>	
		Dec. 31	6406			Notes payable	75000
		Dec. 31	7175			-discount on bonds payable	<u>(0)</u>
Bal.	<u>0</u>					Carrying value	75000

Notes Payable	75,000	
Cash		75,000

E14-14 McCormick Corporation issued a 4-year, \$40,000, 5% note to Greenbush Company on January 1, 2014, and received a computer that normally sells for \$31,495. The note requires annual interest payments each December 31. The market rate of interest for a note of similar risk is 12%. Prepare McCormick's journal entries for (a) the January 1 issuance and (b) the December 31 interest

(a)	Equipment	31,495	
	Discount on Notes Payable	8,505	
	Notes Payable		40,000
(b)	Interest Expense (\$31,495 X 12%)	3,779	
	Cash (\$40,000 X 5%)		2,000
	Discount on Notes Payable		1,779

Discount				Balance sheet			
Jan 1.	8,505	Dec.31	1,779			<u>Long term liabilities</u>	
Bal.	<u>6725</u>					Notes payable	40000
						-discount on bonds payable	<u>(6725)</u>
						Carrying value	33274

(b)	Interest Expense (\$33,274 X 12%)	3,993	
	Cash (\$40,000 X 5%).....		2,000
	Discount on Notes Payable		1,993

E14-3 (Entries for Bond Transactions) Presented below are two independent situations.

- On January 1, 2014, Simon Company issued \$200,000 of 9%, 10-year bonds at par. Interest is payable quarterly on April 1, July 1, October 1, and January 1.
- On June 1, 2014, Garfunkel Company issued \$100,000 of 12%, 10-year bonds dated January 1 at par plus accrued interest. Interest is payable semiannually on July 1 and January 1.

For each of these two independent situations, prepare journal entries to record the following.

(a) The issuance of the bonds, (b) The payment of interest on July 1, (c) The accrual of interest on December 31.

1. Simon Company:			
(a)	1/1/14	Cash.....	200,000
		Bonds Payable.....	200,000
(b)	1/7/14	Interest Expense(\$200,000 X 9% X 3/12).....	4,500
		Cash.....	4,500
(c)	31/12/14	Interest Expense	4,500
		Interest Payable	4,500

2. Garfunkel Company:			
(a)	1/6/14	Cash.....	105,000
		Bonds Payable.....	100,000
		Interest Expense(\$100,000 X 12% X 5/12)....	5,000
(b)	1/7/14	Interest Expense	6,000
		Cash (\$100,000 X 12% X 6/12)	6,000
(c)	12/31/14	Interest Expense	6,000
		Interest Payable	6,000

E14-4 (Entries for Bond Transactions—Straight-Line) Celine Dion Company issued \$600,000 of 10%, 20-year bonds on January 1, 2014, at 102. Interest is payable semiannually on July 1 and January 1. Dion Company uses the **straight-line method** of amortization for bond premium or discount. Prepare the journal entries to record the following (a) The issuance of the bonds, (b) The payment of interest and the related amortization on July 1, 2014, (c) The accrual of interest and the related amortization on December 31, 2014.

(a)	1/1/14	Cash (\$600,000 X 102%).....	612,000	
		Bonds Payable		600,000
		Premium on Bonds Payable		12,000
(b)	1/7/14	Interest Expense	29,700	
		Premium on Bonds Payable (\$12,000 ÷ 40)	300	
		Cash (\$600,000 X 10% X 6/12)		30,000
(c)	31/12/14	Interest Expense	29,700	
		Premium on Bonds Payable	300	
		Interest Payable		30,000

E14-5 (Entries for Bond Transactions—Effective-Interest) Assume the same information as in E14-4, except that Celine Dion Company uses **the effective-interest method** of amortization for bond premium or discount. Assume an effective yield of 9.7705%. Prepare the journal entries to record the following (a) The issuance of the bonds, (b) The payment of interest and related amortization on July 1, 2014, (c) The accrual of interest and the related amortization on December 31, 2014.

(a)	1/1/14	Cash (\$600,000 X 102%)	612,000	
		Bonds Payable.....		600,000
		Premium on Bonds Payable.....		12,000
(b)	1/7/14	Interest Expense (\$612,000 X 9.7705% X 1/2).....	29,898	
		Premium on Bonds Payable	102	
		Cash (\$600,000 X 10% X 6/12)		30,000

Premium on Bonds				Balance sheet			
July 1.	102	Jan 1.	12,000			Long term liabilities	
		Bal.	11,898			Notes payable	600000
						+Premium on bonds payable	11,898
						Carrying value	<u>611,898</u>

Or we can calculate carrying amount of bonds as following:

<u>Carrying amount of bonds at July 1, 2014:</u>	
Carrying amount of bonds at January 1, 2014	\$612,000
Amortization of bond premium(\$30,000 – \$29,898)	(102)
Carrying amount of bonds at July 1, 2014	<u>\$611,898</u>

(c)	31/12/14	Interest Expense (\$611,898 X 9.7705% X 1/2)	29,893	
		Premium on Bonds Payable	107	
		Interest Payable		30,000

Premium on Bonds				Balance sheet			
July 1.	102	Jan 1.	12,000			<u>Long term liabilities</u>	
Dec 31.	107					Notes payable	600000
		Bal.	11,791			+Premium on bonds payable	11,791
						Carrying value	<u>611,791</u>

Or we can calculate carrying amount of bonds as following:

<u>Carrying amount of bonds at Dec 31, 2014:</u>	
Carrying amount of bonds at July 1, 2014	\$611,898
Amortization of bond premium(\$30,000 – \$29,893)	(107)
Carrying amount of bonds at dec 31, 2014	<u>\$611,791</u>

E14-6 (Amortization Schedule—Straight-Line) Devon Harris Company sells 10% bonds having a maturity value of \$2,000,000 for \$1,855,816. The bonds are dated January 1, 2014, and mature January 1, 2019. Interest is payable annually on January 1. Set up a schedule of interest expense and discount amortization under the straight-line method. (Round answers to the nearest cent.)

Schedule of Discount Amortization Straight-Line Method				
Year	Cash Paid	Interest Expense	Discount Amortized	Carrying Amount of Bonds
Jan. 1, 2014	\$2,000,000 X 10%		$(\$2,000,000 - \$1,855,816) \div 5$	\$1,855,816
Dec. 31, 2014	\$200,000	\$228,837	\$28,837	1,884,653
Dec. 31, 2015	200,000	228,837	28,837	1,913,490
Dec. 31, 2016	200,000	228,837	28,837	1,942,327
Dec. 31, 2017	200,000	228,837	28,837	1,971,164
Dec. 31, 2018	200,000	228,836	28,836	2,000,000

E14-7 (Amortization Schedule—Effective-Interest) Assume the same information as E14-6 Set up a schedule of interest expense and discount amortization under the **effective-interest method**.

The effective-interest or yield rate is 12%.

Schedule of Discount Amortization Effective-Interest Method (12%)				
Year	Cash Paid	Interest Expense	Discount Amortized	Carrying Amount of Bonds
Jan. 1, 2014				\$1,855,816
Dec. 31, 2014	\$2,000,000 X 10%	\$1,855,816 X 12%		
	\$200,000	\$222,698	\$22,698	1,878,514
Dec. 31, 2015	\$2,000,000 X 10%	1,878,514×12%		
	200,000	225,422	25,422	1,903,936
Dec. 31, 2016	\$2,000,000 X 10%	1,903,936×12%		
	200,000	228,472	28,472	1,932,408
Dec. 31, 2017	\$2,000,000 X 10%	1,932,408×12%		
	200,000	231,889	31,889	1,964,297
Dec. 31, 2018	\$2,000,000 X 10%	1,964,297×12%		
	200,000	235,703	35,703	2,000,000

E14-8 Presented below are three independent situations

(a) CeCe Winans Corporation incurred the following costs in connection with the issuance of bonds: (1) printing and engraving costs, \$12,000; (2) legal fees, \$49,000; and (3) commissions paid to underwriter, \$60,000. What amount should be reported as Unamortized Bond Issue Costs, and where should this amount be reported on the balance sheet?

(b) George Gershwin Co. **sold** \$2,000,000 of 10%, **10-year** bonds at 104 on January 1, 2014. The bonds were dated January 1, 2014, and pay interest on July 1 and January 1. If Gershwin uses **the straight-line method** to amortize bond premium or discount, determine the amount of interest expense to be reported on July 1, 2014, and December 31, 2014.

(c) Ron Kenoly Inc. **issued** \$600,000 of **9%, 10-year** bonds on **June 30**, 2014, for \$562,500. This price provided a **yield of 10%** on the bonds. Interest is payable **semiannually** on December 31 and June 30. If Kenoly uses the **effective-interest method**, determine the amount of interest expense to record if financial statements are issued on **October 31**, 2014.

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

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

(b)	Interest paid for the period from January 1 to June 30, 2014; $(\$2,000,000 \times 10\% \times 6/12)$	\$100,000
	Less: Premium amortization for the period from January 1 to June 30, 2014 [[$(\$2,080,000 - \$2,000,000) \div 10 \text{ years} \times 6/12$]	<u>(4,000)</u>
	Interest expense to be recorded on July 1, 2014	<u>\$ 96,000</u>
(c)	Carrying amount of bonds on June 30, 2014	<u>\$562,500</u>
	Effective-interest rate for the period from June 30 to October 31, 2014 ($.10 \times 4/12$)	<u>0.033333</u>
	Interest expense to be recorded on October 31, 2014	<u>\$ 18,750</u>

June 30, 2014	cash	562,500	
	Discount on Notes Payable.....	37,500	
	Notes Payable.....		600,000
Oct 31, 2014	Interest Expense $(\$562,500 \times 10\% \times 4/12)$	18,750	
	Cash $(\$600,000 \times 9\% \times 4/12)$		18,000
	Discount on Notes Payable.....		750

Discount				Balance sheet			
June 1.	37,500	oct.31	750	Long term liabilities			
Bal.	36,750			Notes payable		600,000	
				-discount on bonds payable		<u>(36,750)</u>	
				Carrying value		563,250	

E14-9 (Entries and Questions for Bond Transactions) On **June 30, 2014**, Mischa Auer Company issued \$4,000,000 face value of **13%, 20-year** bonds at \$4,300,920, a **yield of 12%**. Auer uses the **effective-interest** method to amortize bond premium or discount. The bonds pay **semiannual** interest on **June 30** and **December 31**. (Round answers to the nearest cent.)

(a) Prepare the journal entries to record the following transactions.

- (1) The issuance of the bonds on June 30, 2014.
- (2) The payment of interest and the amortization of the premium on December 31, 2014.
- (3) The payment of interest and the amortization of the premium on June 30, 2015.
- (4) The payment of interest and the amortization of the premium on December 31, 2015.

(b) Show the proper balance sheet presentation for the liability for bonds payable on the December

31, 2015, balance sheet.

(c) Provide the answers to the following questions.

- (1) What amount of interest expense is reported for 2015?
- (2) Will the bond interest expense reported in 2015 be the same as, greater than, or less than the amount that would be reported if the **straight-line** method of amortization were used?
- (3) Determine the total cost of borrowing over the life of the bond.
- (4) Will the total bond interest expense for the life of the bond be greater than, the same as, or less than the total interest expense if the straight-line method of amortization were used?

June 30, 2014			
(a)1.	Cash.....	4,300,920	
	Bonds Payable.....		4,000,000
	Premium on Bonds Payable.....		300,920
December 31, 2014			
(a)2.	Interest Expense(\$4,300,920X 12% X 6/12).....	258,055	
	Premium on Bonds Payable	1,945	
	Cash (\$4,000,000 X 13% X 6/12).....		260,000
June 30, 2015			
(a)3.	Interest Expense[(\$4,300,920– \$1,945) X 12% X 6/12]	257,939	
	Premium on Bonds Payable	2,061	
	Cash (\$4,000,000 X 13% X 6/12).....		260,000
December 31, 2015			
(a)4.	Interest Expense[(\$4,300,920– \$1,945 –\$2,061) X 12% X 6/12]....	257,815	
	Premium on Bonds Payable	2,185	
	Cash (\$4,000,000 X 13% X 6/12).....		260,000

(B) the proper balance sheet presentation for the liability for bonds payable on the December 31, 2015

<u>Long-term Liabilities</u>	
Bonds payable, 13% (due on June 30, 2034)	\$4,000,000
Premium on bonds payable*	<u>294,728</u>
*(\$4,300,920– \$4,000,000) – (\$1,945+ \$2,061+ \$2,185) = \$294,720	
Book value of bonds payable	<u><u>\$4,294,728</u></u>

(c)1	Interest expense for the period from January 1 to June 30, 2015	\$257,939
	Interest expense for the period from July 1 to December 31, 2015	<u>257,815</u>
	Amount of interest expense reported for 2015	<u>\$515,754</u>

2. The amount of bond interest expense reported in 2015 will be greater than the amount that would be reported if the straight-line method of amortization were used.

Under the straight-line method, the amortization of bond premium is \$15,046 (\$300,920/20).

Bond interest expense for 2015 is the difference between the amortized premium, \$15,046, and the actual interest paid, \$520,000 (\$4,000,000 × 13%). Thus, the amount of bond interest expense is \$504,954 (\$520,000 – \$15,046), which is smaller than the bond interest expense under the **effective-interest** method.

3.	Total interest to be paid for the bond (\$4,000,000 × 13% × 20)	\$10,400,000
	Principal due in 2034	<u>4,000,000</u>
	Total cash outlays for the bond	14,400,000
	Cash received at issuance of the bond	<u>(4,300,920)</u>
	Total cost of borrowing over the life of the bond	<u>\$10,099,080</u>
4.	They will be the same.	

E14-10 (Entries for Bond Transactions) On January 1, 2014, Aumont Company sold 12% bonds having a maturity value of \$500,000 for \$537,907.37, which provides the bondholders with a **10% yield**. The bonds are dated **January 1, 2014**, and **mature January 1, 2019**, with interest payable December 31 of **each year**. Aumont Company allocates interest and unamortized discount or premium on the effective-interest basis. (Round answers to the nearest cent.)

- Prepare the journal entry at the date of the bond issuance.
- Prepare a schedule of interest expense and bond amortization for 2014–2016.
- Prepare the journal entry to record the interest payment and the amortization for 2014.
- Prepare the journal entry to record the interest payment and the amortization for 2016.

January 1, 2014			
(a)	Cash	537,907.37	
	Premium on Bonds Payable		37,907.37
	Bonds Payable		500,000

(b) Schedule of Interest Expense and Bond Premium Amortization

Effective-Interest Method 12% Bonds Sold to Yield 10%				
Date	Cash Paid	Interest Expense	Premium Amortized	Carrying Amount of Bonds
1/1/14	—	—	—	\$537,907.37
31/12/14	\$500,000 X 12%	\$537,907.37×10%	\$6,209.26	531,698.11
	\$60,000	\$53,790.74		
31/12/15	\$500,000 X 12%	531,698.11×10%	6,830.19	524,867.92
	60,000	53,169.81		
31/12/16	\$500,000 X 12%	524,867.92×10%	7,513.21	517,354.71
	60,000	52,486.79		

December 31, 2014			
(c)	Interest Expense	53,790.74	
	Premium on Bonds Payable	6,209.26	
	Cash		60,000

December 31, 2016			
(d)	Interest Expense	52,486.79	
	Premium on Bonds Payable	7,513.21	
	Cash		60,000

P14-1 (Analysis of Amortization Schedule and Interest Entries) The following amortization and interest schedule reflects the issuance of **10-year** bonds by Capulet Corporation on January 1, 2008, and the subsequent interest payments and charges. The company's year-end is December 31, and financial statements are prepared once yearly

Amortization Schedule				
Year	Cash	Interest	Amount Amortized	Carrying Value
1\1\2008			\$5,651	\$94,349
2008	11,000	\$11,322	5,329	94,671
2009	11,000	11,361	4,968	95,032
2010	11,000	11,404	4,564	95,436
2011	11,000	11,452	4,112	95,888
2012	11,000	11,507	3,605	96,395
2013	11,000	11,567	3,038	96,962
2014	11,000	11,635	2,403	97,597
2015	11,000	11,712	1,691	98,309
2016	11,000	11,797	894	99,106
2017	11,000	11,894	0	100,000

(a) Indicate whether the bonds were issued at a premium or a discount and how you can determine this fact from the schedule.

(b) Indicate whether the amortization schedule is based on the straight-line method or the effective-interest method, and how you can determine which method is used.

(c) Determine the stated interest rate and the effective-interest rate.

(d) On the basis of the schedule above, prepare the journal entry to record the issuance of the bonds on January 1, 2008.

(e) On the basis of the schedule above, prepare the journal entry or entries to reflect the bond transactions and accruals for 2008. (Interest is paid January 1.)

(f) On the basis of the schedule above, prepare the journal entry or entries to reflect the bond transactions and accruals for 2015. Capulet Corporation does not use reversing entries.

(a) The bonds were sold at a discount of \$5,651. Evidence of the discount is the January 1, 2008 book value of \$94,349, which is less than the maturity value of \$100,000 in 2017.

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

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

	<u>January 1, 2008</u>		
(d)	Cash.....	94,349	
	Discount on Bonds Payable.....	5,651	
	Bonds Payable		100,000
	<u>December 31, 2008</u>		
(e)	Interest Expense.....	11,322	
	Discount on Bonds Payable.....		322
	Interest Payable		11,000
	<u>January 1, 2015 (Interest Payment)</u>		
(f)	Interest Payable.....	11,000	
	Cash.....		11,000
	<u>December 31, 2015</u>		
	Interest Expense.....	11,712	
	Discount on Bonds Payable.....		712
	Interest Payable		11,000