

# ACCOUNTING FOR NOTES PAYABLE

## Key Terms and Concepts to Know

### Short-term Notes Payable:

- Term of one year or less
- Interest rate stated per year, not for the term of the note
- Typically one payment is made at maturity that includes both principal and interest
- Interest expense must be accrued at the end of an accounting period

### Long-term Notes Payable:

- Term of longer than one year
- Interest rate stated per year, not for the term of the note
- Periodic payments are made throughout the term of the note
- Payments include both principal and interest
- Principal portion of the payment is "going forward", reducing the amount outstanding for the next period; Interest portion of the payment is "in arrears", being calculated of the outstanding balance of the note for the period just ending
- Interest expense must be accrued at the end of an accounting period

## Key Topics to Know

### Short-Term Notes Payable

Notes Payable are promissory notes given that state a promise to pay a specific dollar amount, usually with interest, within a specified time period.

They are the "opposite" of the notes receivable discussed in the chapter on accounts receivable.

- Notes payable replaces notes receivable
- Interest expense replaces interest revenue
- Cash is paid rather than received
- Notes payable is a liability whereas notes receivable is an asset

With an interest-bearing note, the interest expense is recorded when the note is paid.

- Notes Receivable generate Interest Income
- Notes Payable generate Interest Expense

#### **Example #1**

Q Company issued a 90-day, 10% note for \$12,000 to a creditor for an overdue account payable.

Required: Journalize the entries to record issuing the note and payment on the due date.

#### **Solution #1**

a.	Accounts payable	12,000	
	Notes payable		12,000
b.	Notes payable	12,000	
	Interest expense	300	
	Cash		12,300
	<i>Interest: 12,000 * .10 * 90/360 = 300</i>		

**Accrual of Interest** – Interest Expense must be accrued on all outstanding Notes Payables at the end of the accounting period to properly match revenues and expenses.

### **Example #2**

On December 1, G Company issued a 60-day, 8% note for \$15,000 on account.

Required: Journalize the entry to accrue interest expense on December 31.

### **Solution #2**

Interest expense	100	
Interest payable		100

$$\text{Interest expense} = \text{principal} \times \text{rate} \times \text{time}$$

$$100 = 15,000 \times .08 \times 30 \text{ days}/360 \text{ days}$$

## **Long-Term Notes Payable**

- Long-term or installment notes are loans that are repaid in a series of equal payments over a number of years.
- The payment amounts remain constant, with each successive payment made up of a decreasing amount of interest expense and an increasing amount of principal repayment.
- If the notes are to be repaid in a series of equal payments over a number of years, the principal amount of the note must be divided by the present value of an annuity factor to calculate the amount of each payment. The interest portion of each payment is the notes' interest rate x the balance of the note outstanding for the prior period.

### **Example #3**

B Company signed a 3-year, 10% note for \$12,000 with their bank. Annual payments will be made starting in one year to repay the note.

Required: Journalize the entries to record issuing the note and the subsequent payments.

**Solution #3**

From the present value of an annuity table for 3 periods and 10% is .

$$\begin{array}{rcl} \text{Principal} & \text{Annuity Factor} & \\ \$12,000 / & \text{3 periods at 10\%} & \text{Payment} \\ & 2.4869 = & \$4,825.28 \end{array}$$

The payment schedule, adjusted for rounding, is:

<u>Year</u>	<u>Beginning Balance</u>	<u>Payment Amount</u>	<u>Interest Expense</u>	<u>Principal Payment</u>	<u>Ending Balance</u>
1	12,000.00	4,825.28	1,200.00	3,625.28	8,374.72
2	8,374.72	4,825.28	837.47	3,987.81	4,386.91
3	4,386.91	4,825.60	483.69	4,386.91	0.00

Year 1

1/1	Cash			12,000	
	Notes Payable				12,000
12/31	Interest Expense			1,200.00	
	Notes Payable			3,625.28	
	Cash				4,825.28

Year 2

12/31	Interest Expense			837.47	
	Notes Payable			3,987.81	
	Cash				4,825.28

Year 3

12/31	Interest Expense			483.69	
	Notes Payable			4,386.91	
	Cash				4,825.28

2.

## Practice Problems

### **Practice Problem #1**

Journalize the following transactions for a series of short-term notes payable issued by B Company during the year.

- March 15 Purchased merchandise on account from T Company for \$33,000, terms n/30.
- April 14 B Company decided that they could not pay T Company in 30 days and issued a 30-day, 8% note for \$33,000
- May 14 Paid T Company the amount due on the note of April 14.
- October 15 Borrowed \$90,000 from M Bank, issuing a series of ten 12% notes for \$9,000 each, coming due at 30-day intervals.
- November 15 Paid the amount due to M Bank on the first note in the series.
- December 15 Paid the amount due to M Bank on the second note in the series
- December 31 Accrued interest on the outstanding Notes Payable. There are currently eight outstanding notes payable to M Bank.

Required: Journalize the transactions.

### **Practice Problem #2**

On November 1, D Company borrows \$200,000 to expand operations, signing a six-month, 9% promissory note. Interest is payable at maturity. D Company's year-end is December 31.

- Required:
- a) Record the issuance of the note by D Company
  - b) Record the appropriate adjusting entry for the note by D Company on December 31
  - c) Record the payment of the note by D Company at maturity on April 30.

**Practice Problem #3**

On January 1, J Company borrows \$30,000 to purchase a new truck by agreeing to a 6%, 4-year note with the bank. The first installment payment will be due on January 1 of the following year.

Required: Record the issuance of the note payable and the first two annual payments.

**Practice Problem #4**

On January 1, L Company borrows \$3,000,000 to build a new plant, agreeing to a 12%, 5-year mortgage with the bank. Payments will be made semi-annually on June 30 and December 31.

Required:

- a) Prepare the journal entry to record the mortgage loan
- b) Prepare a payment schedule for the first two years for the mortgage loan
- c) Prepare the journal entry to record the first loan payment
- d) What is the amount of current maturities of long-term debt on the balance sheet at the end of year 1?

## True / False Questions

1. Interest is stated in terms of an annual percentage rate to be applied to the face value of the loan.  
True   False
2. Monthly installment payments on a note payable include both an amount that represents interest and an amount that represents a reduction of the outstanding loan balance.  
True   False
3. Promissory notes cannot be transferred from party to party because they are nonnegotiable.  
True   False
4. Even if the end of an accounting period occurs between the signing of a note payable and its maturity date, the matching principle requires that interest expense not be accrued on a note payable until the note is paid.  
True   False
5. The difference between the amount received from issuing a note payable and the amount repaid at maturity is referred to as interest.  
True   False
6. An installment note is an obligation of the issuing company that requires a series of periodic payments to the lender.  
True   False
7. Payments on an installment note normally include the accrued interest expense plus a portion of the amount borrowed.  
True   False
8. The carrying value of a long-term note is computed as the present value of all remaining future payments, discounted using the stated rate at the time of issuance.  
True   False
9. Payments on installment notes normally include accrued interest plus a portion of the principal amount borrowed.  
True   False

10. The equal total payments pattern for installment notes consists of changing amounts of interest but constant amounts of principal over the life of the note.  
True    False



## Multiple Choice Questions

1. On June 5, A Company issued a \$30,000, 8% 120-day note payable to J Company. Assume the fiscal of A Company ends June 30. What is the interest expense recognized in the current fiscal year?
  - a) \$166.67
  - b) \$800.00
  - c) \$373.33
  - d) \$633.34
2. The entry to record the payment of a \$12,000, 8%, 60-day note at maturity would include a debit to:
  - a) Cash for \$12,160
  - b) Notes Payable for \$12,160
  - c) Interest Income for \$160
  - d) Interest Expense for \$160

The next 2 questions refer to the following information.

On November 1, F Company signed a \$100,000, 6%, six-month note payable with the amount borrowed plus accrued interest due on April 30 for the next year.

3. F Company should report interest payable at December 31, in the amount of:
  - a) \$0
  - b) \$1,000
  - c) \$2,000
  - d) \$3,000
4. Assuming F Company recorded the appropriate adjusting entry for the note on December 31, the entry to record the payment of the note plus accrued interest at maturity on April 30 would include a:
  - a) Debit Interest Expense, \$2,000.
  - b) Debit Interest Expense, \$1,000.
  - c) Debit Interest Payable, \$2,000.
  - d) Debit Interest Expense, \$3,000.

5. On July 1, T Company borrowed \$70,000 from the C Bank for 150 days at 9%. The entry to record payment of the note on the due date would be:

a) Cash	72,625	
Notes Payable		70,000
Interest Income		2,625
b) Notes Payable	72,625	
Cash		72,625
c) Notes Payable	70,000	
Interest Payable	2,625	
Cash		72,625
d) Notes Payable	70,000	
Interest Expense	2,625	
Cash		72,625

6. On December 1, Old World Deli signed a \$300,000, 5%, six-year note payable with annual payments. The amount of the first payment will be:

- a) \$50,000
- b) \$65,000
- c) \$59,105
- d) \$15,000

The next 2 questions refer to the following information.

On July 1, B Company borrowed \$250,000 cash by signing a 10-year, 8% installment note requiring equal payments each June 30 of \$37,258.

7. What amount of interest expense will be included in the first annual payment?
- a) \$20,000
  - b) \$37,258
  - c) \$25,000
  - d) \$17,258
8. What amount of principle will be included in the first annual payment?
- a) \$20,000
  - b) \$37,258
  - c) \$25,000
  - d) \$17,258

9. Promissory notes that require the issuer to make a series of payments consisting of both interest and principal include:
  - a) Mortgages
  - b) Installment notes
  - c) Both of the above
  - d) Neither of the above
  
10. The carrying value of a long-term note payable is computed as:
  - a) The future value of all remaining payments, calculated using the market rate of interest.
  - b) The present value of all remaining payments, calculated using the market rate of interest at the time of issuance.
  - c) The present value of all remaining interest payments, calculated using the note's rate of interest.
  - d) The face value of the long-term note plus the total of all future interest payments.

## Solutions to Practice Problems

### Practice Problem #1

3/15	Merchandise Inventory Accounts payable	33,000  33,000	  33,000
4/14	Accounts payable Notes Payable	33,000  33,000	  33,000
5/14	Notes Payable Interest expense Cash <i>Interest: 33,000 * .08 * 30/360 = 220</i>	33,000  220  33,220	    33,220
9/15	Cash Notes Payable	90,000  90,000	  90,000
10/15	Notes Payable Interest Expense Cash <i>Interest Due: 9,000 * .12 * 30/360 = 90</i>	9,000  90  9,090	    9,090
11/15	Notes Payable Interest Expense Cash <i>Interest Due: 9,000 * .12 * 60/360 = 180</i>	9,000  180  9,180	    9,180
12/31	Interest expense Interest payable <i>Interest: 72,000 * .12 * 2.5/12 = 1,800</i>	1,800  1,800	  1,800

**Practice Problem #2**

11/1	Cash	200,000	
	Notes Payable		200,000
12/31	Interest expense	3,000	
	Interest payable		3,000
	<i>Interest: 200,000 * .09 * 60/360 = 3,000</i>		
4/30	Notes Payable	200,000	
	Interest Expense	6,000	
	Interest payable	3,000	
	Cash		209,000
	<i>Interest Due: 200,000 * .09 * 120/360 = 6,000</i>		

**Practice Problem #3**Year 1

1/1	Cash	30,000	
	Notes Payable		30,000

Year 2

1/1	Interest Expense	1,800.00	
	Notes Payable	6,857.76	
	Cash		8,657.76

Year 3

1/1	Interest Expense	1,388.53	
	Notes Payable	7,269.23	
	Cash		8,657.76

The payment schedule, adjusted for rounding, is:

<u>Principal</u> \$30,000 /	<u>Annuity Factor</u> 4 periods at 6% 3.4651 =	<u>Payment</u> \$8,657.76
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<u>Year</u>	<u>Beginning Balance</u>	<u>Payment Amount</u>	<u>Interest Expense</u>	<u>Principal Payment</u>	<u>Ending Balance</u>
1	30,000.00	8,657.76	1,800.00	6,857.76	23,142.24
2	23,142.24	8,657.76	1,388.53	7,269.23	15,873.01
3	15,873.01	8,657.76	952.38	7,705.38	8,167.63
4	8,167.63	8,657.69	490.06	8,167.63	0.00

**Practice Problem #4**

a)

1/1	Cash		3,000,000	
		Mortgage Payable		3,000,000

b)

<u>Principal</u> \$3,000,000 /	<u>Annuity Factor</u> 10 periods at 6% 7.36009=	<u>Payment</u> \$407,604
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<u>Period</u>	<u>Beginning Balance</u>	<u>Payment Amount</u>	<u>Interest Expense</u>	<u>Principal Payment</u>	<u>Ending Balance</u>
1	3,000,000	407,604	180,000	227,604	2,772,396
2	2,772,396	407,604	166,344	241,260	2,531,136
3	2,531,136	407,604	151,868	255,736	2,275,401
4	2,275,401	407,604	136,524	271,080	2,004,321

c)

6/30	Interest Expense		180,000	
		Mortgage Payable	227,604	
		Cash		407,604

d) \$255,736 + \$271,080 = \$526,816

## Solutions to True / False Problems

1. True
2. True
3. False – notes can be bought and sold at any time
4. False – the matching principle requires that interest expense be accrued at the end of an accounting period.
5. True
6. True
7. True
8. False – the market rate of interest is used
9. True
10. False – both the amount of interest and the principal repayment change for each payment

## Solutions to Multiple Choice Questions

- |     |   |
|-----|---|
| 1.  | A |
| 2.  | D |
| 3.  | B |
| 4.  | A |
| 5.  | D |
| 6.  | C |
| 7.  | A |
| 8.  | D |
| 9.  | C |
| 10. | B |