# COMPREHENSIVE EXAMINATION D

## PART 4

*(Chapters 15-18)*

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<td>D-V</td>
<td>Earnings Per Share Computations.</td>
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<td>30 min.</td>
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<td>30 min.</td>
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140 min.

*Part of this topic is dealt with in an Appendix to the chapter.*
Problem D-I — Treasury Stock

The stockholders' equity section of Sosa Co.'s balance sheet at December 31, 1998, was as follows:

<table>
<thead>
<tr>
<th>Stockholders' Equity</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common stock--$10 par (authorized 1,000,000 shares, issued and outstanding 600,000 shares)</td>
<td>$ 6,000,000</td>
</tr>
<tr>
<td>Paid-in capital in excess of par</td>
<td>1,500,000</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>3,250,000</td>
</tr>
<tr>
<td></td>
<td><strong>$10,750,000</strong></td>
</tr>
</tbody>
</table>

**Instructions**

Prepare journal entries to reflect the following treasury stock transactions showing how each is accounted for under the cost method. (Show computations.)

1. On January 4, 1999, having idle cash, Sosa Co. repurchased 25,000 shares of its outstanding stock for $450,000.
2. On March 4, Sosa sold 5,000 of these reacquired shares at $22 per share.
3. Show the proper disclosures in the stockholders' equity section of the balance sheet issued at the end of the first quarter, March 31, 1999. Assume net income of $100,000 during the first quarter.
4. On June 30, 1999 the firm sold 15,000 of the reacquired shares for $16 per share.
5. The remaining 5,000 shares are legally retired on November 30, 1999.

Problem D-II — Cash Dividends

Shaw has stock outstanding as follows: Common, $10 par value per share, 150,000 shares; Preferred, 8%; $100 par value per share, 5,000 shares. The Preferred is cumulative and participating up to an additional 5% of par; three years are in arrears (not including the current year); and the total amount of cash dividends declared for both classes of stock is $320,000.

**Instructions**

Prepare the entry for the dividend declaration, separating the dividend into the common and preferred portions.
Problem D-III — Stock Dividends and Stock Splits

Stock dividends and stock splits are common forms of corporate stock distribution to stockholders.

Consider each of the numbered statements. You are to decide whether it:

A. Applies to both stock dividends and stock splits.
B. Applies to neither.
C. Applies to stock splits only.
D. Applies to stock dividends only.
E. Applies to stock splits effected in the form of a dividend only.
F. Applies to both stock splits effected in the form of a dividend and a stock dividend.

(In each instance, the issuing company has only one class of stock.)

Instructions

Print next to the number of each statement below, the single capital letter of the description which applies to the statement.

Statements

___ 1. There is no transfer between retained earnings and capital stock accounts, other than to the extent occasioned by legal requirements.
___ 2. There is no change in the total stockholders' equity of the issuing corporation.
___ 3. The retained earnings available for dividends are increased.
___ 4. The par (or stated value) of the stock is unchanged.
___ 5. Subsequent per-share earnings, if any, are decreased.
___ 6. Retained earnings in the amount of the distribution are transferred to capital stock, in some instances in an amount in excess of that required by the laws of the state of incorporation.
___ 7. The individual stockholder's share of net assets is increased.
___ 8. The total number of shares outstanding is increased.
___ 9. The distribution is a multiple as contrasted to a fraction of the number of shares previously outstanding.
Problem D-IV — Earnings Per Share Concepts

Indicate which of the following securities would be included in the computation of "basic earnings per share," and which would be included in the computation of "diluted earnings per share." Place a "B" before those which affect only basic EPS, a "D" before those which affect only diluted EPS, a "BD" before those which affect both basic and diluted EPS, and an "N" before those securities which do not affect EPS computations. Assume that, where applicable, the appropriate securities are dilutive.

___ 1. Notes payable.
___ 2. Executive stock options.
___ 3. Convertible bonds.
___ 5. Warrants to purchase additional common shares.
___ 7. Nonconvertible debenture bonds.

Problem D-V — Earnings Per Share Computations

Larkin, Inc. has net income (30% tax rate) of $2,000,000 for 1998, and an average number of shares outstanding during the year of 500,000 shares. The corporation issued $2,000,000 par value of 10-year, 9% convertible bonds on January 1, 1996 at a $180,000 discount. The convertible bonds are convertible into 60,000 shares of common stock. Assume the company uses the straight-line method for amortizing bond discount.

Instructions

Compute the earnings per share data, excluding any notes if required.
Problem D-VI — Basic and Diluted Earnings Per Share

Assume that the following data relate to Abel, Inc. for the year 1998:

Net income (30% tax rate) $3,000,000
Average common shares outstanding 1998 1,000,000 shares
10% cumulative convertible preferred stock:
   Convertible into 80,000 shares of common $1,600,000
8% convertible bonds; convertible into 75,000 shares of common $2,500,000
Stock options:
   Exercisable at the option price of $25 per share; average market price in 1998, $30 90,000 shares

Instructions
Compute (a) basic earnings per share, and (b) diluted earnings per share.

Problem D-VII — *Available-for-Sale Equity Securities

On January 2, 1998, the Kane Company purchased 500 shares of Fox Company common stock for $18,000. The stock has a par value of $10 and is part of the total stock outstanding of 20,000 shares of Fox Company. Kane Company intends the stock to be available for sale. Total stockholders' equity of Fox Company on January 2, 1998 was $600,000.

Instructions
Prepare necessary journal entries in accordance with generally accepted accounting principles on the books of Kane Company for the following transactions. If no entry is required, write "none" in the space provided. (Round all calculations to the nearest cent.)

(a) January 2, 1998: Kane purchases the shares described above.

(b) December 31, 1998: Kane receives an $.80 per share dividend from Fox, and Fox announces a net income for 1998 of $200,000.

(c) December 31, 1998: According to The Wall Street Journal, Fox common is selling for $30 per share. Kane's management views this decline as being only temporary in nature. Fox's common is Kane's only available-for-sale security.

(d) July 15, 1999: Kane receives a 50% stock dividend from Fox.

(e) November 15, 1999: Kane receives 1 right for each share owned. Each right entitles Kane to purchase 1 share of Fox at $28 per share. At this date, Fox common is selling at $32 per share and the rights at $8 per right.

(f) December 31, 1999: Kane receives a $0.40 per share dividend from Fox, and Fox announces a net income of $100,000.
**Problem D-VII** (cont.)

(g) December 31, 1999: *The Wall Street Journal* has the following quotations for Fox common and Fox rights:

- Fox Common $24
- Fox Rights $ 7

Again, Kane’s management views the change in the market value of the common as being only temporary in nature.

(h) January 15, 2000: 375 shares of stock are purchased by Kane exercising an appropriate portion of the rights.

(i) January 31, 2000: The remaining rights are sold at $9 per right.

(j) February 15, 2000: Kane sells 375 of the shares purchased on January 2, 1998 at $27 per share.

(k) March 21, 2000: Kane sells 150 shares purchased on January 15, 2000 at $30 per share.

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**Problem D-VIII** — Trading Securities

The information below relates to Colt Company’s trading securities in 1998 and 1999.

(a) Prepare the journal entries for the following transactions.

- **May 1, 1998**: Purchased $200,000 par value of Barr Company bonds at 98 plus accrued interest. The bonds pay interest annually at 9% each December 31. Broker’s commission was $2,000.

- **September 1, 1998**: Sold $100,000 par value of Barr Company bonds at 95 plus accrued interest. Broker’s commission, taxes, and fees were $1,000.

- **September 5, 1998**: Purchased 3,200 shares of Pine, Inc. common stock for $25 per share. The broker’s commission on the purchase amounted to $1,200.

- **December 31, 1998**: Make the appropriate entry for the Barr Company bonds.

- **December 31, 1998**: The market prices of the trading securities at December 31 were: Pine, Inc. common stock, $20 per share; and Barr Company bonds, 99. Make the appropriate entry.

- **July 1, 1999**: Colt sold 1/2 of the Pine, Inc. common stock at $23 per share. Broker’s commissions were $600; taxes and fees were $80.

- **December 1, 1999**: Colt purchased 600 shares of Dent, Inc. common stock at $40 per share. Broker’s commission was $400.
Problem D-VIII (cont.)

December 31, 1999  Make the appropriate entry for the Barr Company bonds.

December 31, 1999  The market prices of the trading securities at December 31 were: Pine, Inc. common stock, $26 per share; Barr Company bonds, 98; and Dent, Inc. common stock, $38 per share. Make the appropriate entry.

(b) Present the financial statement disclosure (balance sheet and income statement) of Colt Company's transactions in trading securities for each of the years 1998 and 1999. Appropriate financial statement subheadings must be disclosed.
Solutions — Comprehensive Examination D

Problem D-I — Solution.

1. Treasury Stock ................................................................. 450,000
   Cash ................................................................. 450,000

2. Cash ................................................................. 110,000
   Treasury Stock ............................................................. 90,000
   Paid-in Capital from Treasury Stock ................................ 20,000

3. Stockholders’ equity:
   Common stock, $10 par, 1,000,000 shares authorized,
   600,000 shares issued, 580,000 shares outstanding $6,000,000
   Paid-in capital in excess of par value 2,000,000
   Paid-in capital from treasury stock 20,000
   Retained earnings 3,350,000
   Total stockholders’ equity $11,010,000
   Less: Cost of 20,000 shares held in treasury (360,000)

4. Cash ................................................................. 240,000
   Paid-in Capital from Treasury Stock .................................. 20,000
   Retained Earnings .......................................................... 10,000
   Treasury Stock ............................................................. 270,000

5. Common Stock ............................................................... 50,000
   Paid-in Capital in Excess of Par ......................................... 12,500
   Retained Earnings .......................................................... 27,500
   Treasury Stock ............................................................. 90,000

Problem D-II — Solution.

Retained Earnings ............................................................. 320,000
   Dividends Payable, Preferred ........................................... 170,000
   Dividends Payable, Common ............................................. 150,000

Computations:

<table>
<thead>
<tr>
<th></th>
<th>Preferred</th>
<th>Common</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrears—$500,000 × 8% × 3</td>
<td>120,000</td>
<td></td>
<td>120,000</td>
</tr>
<tr>
<td>Preference—$500,000 × 8%</td>
<td>40,000</td>
<td></td>
<td>40,000</td>
</tr>
<tr>
<td>Common—$1,500,000 × 8%</td>
<td></td>
<td>120,000</td>
<td>120,000</td>
</tr>
<tr>
<td>Participating 2%*</td>
<td>10,000</td>
<td>30,000</td>
<td>40,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>170,000</td>
<td>150,000</td>
<td>320,000</td>
</tr>
</tbody>
</table>

* [($320,000 - $280,000) ÷ ($500,000 + $1,500,000)]
**Problem D-III — Solution.**

1. E  
2. A  
3. B  
4. F  
5. A  
6. F  
7. B  
8. A  
9. C

**Problem D-IV — Solution.**

1. N  
2. D  
3. D  
4. BD  
5. D  
6. BD  
7. N  
8. D

**Problem D-V — Solution.**

**Basic earnings per share**

\[
\frac{$2,000,000 \div 500,000 \text{ shares}}{} = $4.00
\]

**Diluted earnings per share**

\[
\frac{$2,000,000 + .7($180,000 + $18,000)}{500,000 + 60,000} = $3.82
\]

**Problem D-VI — Solution.**

(a) Basic EPS = \(\frac{$3,000,000 - $160,000}{1,000,000}\) = \$2.84

(b) 

<table>
<thead>
<tr>
<th>Shares</th>
<th>Earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start</td>
<td>1,000,000</td>
</tr>
<tr>
<td>Convertible preferred</td>
<td>80,000</td>
</tr>
<tr>
<td>Convertible bonds</td>
<td>75,000</td>
</tr>
<tr>
<td>Options</td>
<td>15,000</td>
</tr>
</tbody>
</table>

\[
1,170,000 \quad $3,140,000
\]

\[*(2,500,000 \times .08) \times (1 - .30)\]

\[$3,140,000 \div 1,170,000 = \$2.68 \text{ DEPS}\]
Problem D-VII — Solution.

(a) Available-for-Sale Securities ....................................................... 18,000
   Cash ................................................................................ 18,000

(b) Cash .......................................................................................... 400
   Dividend Revenue ........................................................... 400
   No entry to accrue investee profits because fair value, not equity, method is being used.

(c) Unrealized Holding Gain or Loss—Equity ................................... 3,000
   Securities Fair Value Adjustment (Available-for-Sale) ..... 3,000

(d) No entry--cost per share = $18,000 ÷ (500 + 250) = $24.

(e) Available-for-Sale Securities (Rights) .......................................... 3,600
    Available-for-Sale Securities (Stock) ............................... 3,600
    $32 ÷ ($32 + $8) × $18,000 = $14,400 ÷ 750 shares = $19.20 per share
    $8 ÷ ($32 + $8) × $18,000 = 3,600 ÷ 750 rights = $4.80 per right
    $18,000

(f) Cash ($0.40 × 750) ................................................................. 300
    Dividend Revenue .......................................................... 300
    Again, the investor’s share of income is not recognized because the fair value method is being used.

(g)  
<table>
<thead>
<tr>
<th></th>
<th>Cost</th>
<th>Fair Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fox Common</td>
<td></td>
<td></td>
</tr>
<tr>
<td>750 shares @ $19.20</td>
<td>$14,400</td>
<td>$18,000</td>
</tr>
<tr>
<td>Fox Rights</td>
<td></td>
<td></td>
</tr>
<tr>
<td>750 @ $4.80</td>
<td>3,600</td>
<td></td>
</tr>
<tr>
<td>750 @ $7.00</td>
<td></td>
<td>5,250</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$18,000</strong></td>
<td><strong>$23,250</strong></td>
</tr>
</tbody>
</table>

   Securities Fair Value Adjustment (Available-for-Sale) ................. 8,250
   Unrealized Holding Gain or Loss—Equity ..................................... 8,250

(h) Available-for-Sale Securities ....................................................... 12,300
   Cash (375 × $28) ................................................................. 10,500
   Available-for-Sale Securities (Rights) (375 × $4.80) ............ 1,800

(i) Cash (375 × $9) ................................................................. 3,375
    Available-for-Sale Securities (Rights) (375 rights) ......... 1,800
    Gain on Sale of Securities ........................................... 1,575

(j) Cash (375 × $27) ................................................................. 10,125
    Available-for-Sale Securities (375 × $19.20) ............... 7,200
    Gain on Sale of Securities ........................................... 2,925

(k) Cash (150 × $30) ................................................................. 4,500
    Loss on Sale of Securities ............................................ 420
    Available-for-Sale Securities [150 × ($28 + $4.80)] ........ 4,920
Problem D-VIII — Solution.

May 1, 1998*

Trading Securities ................................................................. 198,000
Interest Revenue .................................................................... 6,000
Cash ..................................................................................... 204,000

September 1, 1998

Cash ($95,000 + $6,000 - $1,000) ........................................ 100,000
Loss on Sale of Securities .................................................... 5,000
Trading Securities ................................................................. 99,000
Interest Revenue ................................................................... 6,000

September 5, 1998

Trading Securities ................................................................. 81,200
Cash ..................................................................................... 81,200

December 31, 1998*

Cash ..................................................................................... 9,000
Interest Revenue ................................................................... 9,000

December 31, 1998

Unrealized Holding Gain or Loss—Income ($180,200 - $163,000) ... 17,200
Securities Fair Value Adjustment (Trading) ............................ 17,200

*If Interest Receivable is debited for $6,000 on May 1, then the December 31, entry is:

Cash ..................................................................................... 9,000
Interest Receivable ............................................................. 6,000
Interest Revenue ................................................................. 3,000

July 1, 1999

Cash ($36,800 - $680) ........................................................ 36,120
Loss on Sale of Securities .................................................... 4,480
Trading Securities ................................................................. 40,600

December 1, 1999

Trading Securities ................................................................. 24,400
Cash ..................................................................................... 24,400

December 31, 1999

Cash ..................................................................................... 9,000
Interest Revenue ................................................................... 9,000

December 31, 1999

Securities Fair Value Adjustment (Trading) ......................... 15,600
$17,200 - ($164,000 - $162,400)
Unrealized Holding Gain or Loss—Income ............................ 15,600
<table>
<thead>
<tr>
<th><strong>Balance Sheet</strong></th>
<th>1998</th>
<th>1999</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current assets:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trading securities, at fair value</td>
<td>$163,000</td>
<td>$162,400</td>
</tr>
</tbody>
</table>

**Income Statement**

Other revenue and gains:
- Unrealized holding gain on trading securities | $15,600 |
- Interest Revenue | $9,000   |

Other expenses and losses:
- Loss on sale of securities | 5,000   |
- Unrealized holding loss on trading securities | 17,200  |