EXERCISE 17-3 (10-20 minutes)

(a) Conversion recorded at book value of the bonds:

- Bonds Payable: 500,000
- Premium on Bonds Payable: 7,500
  - Preferred Stock: 500,000
  - Paid-in Capital in Excess of Par (Preferred Stock): 7,500

(b) Conversion recorded at fair market value of the stock:

- Bonds Payable: 500,000
- Premium on Bonds Payable: 7,500
- Loss on Retirement of Bonds: 1,250
  - Preferred Stock ($50 X 500 X 20): 500,000
  - Paid-in Capital in Excess of Par (Preferred Stock): 8,750
  - (10,000 shares @ $.875)

OR

EXERCISE 17-3 (Continued)

Conversion recorded at fair market value of the bonds:

- Bonds Payable: 500,000
- Premium on Bonds Payable: 7,500
- Loss on Retirement of Bonds: 2,500
  - Preferred Stock ($50 X 500 X 20): 500,000
  - Paid-in Capital in Excess of Par (Preferred Stock): 10,000
  - [$500,000 X 102%) – $500,000]

(Note to instructor: The fair market value of what is given up or the fair market value of what is received should be recorded, whichever is more clearly evident. If both are known, we would
prefer to use the fair market value of what is given up although this is not what is done in practice.)

EXERCISE 17-5 (10-20 minutes)

Interest Expense ................................................................. 25,640
Discount on Bonds Payable .............................................. 640
[$10,240 \div 64 = \$160; \$160 \times 4$]
Cash (10% X $500,000 X 1/2) ............................................... 25,000
(Assumed that the interest accrual was reversed as of January 1, 2002; if the interest accrual was not reversed, interest expense would be $17,307 and interest payable would be debited for $8,333)

EXERCISE 17-5 (Continued)

Bonds Payable ......................................................................... 500,000
Discount on Bonds Payable ($10,240 – $640).............. 9,600
Common Stock ($25 \times 6 \times 500) ........................................ 75,000
Paid-in Capital in Excess of Par ................................. 415,400

EXERCISE 17-9 (10-15 minutes)

(a) Cash ($2,000,000 X 1.02) .............................................. 2,040,000
Discount on Bonds Payable ........................................... 40,000
[(1 – .98) \times $2,000,000]
Bonds Payable ................................................................. 2,000,000
Paid-in Capital—Stock Warrants ......................... 80,000*

*$2,040,000 – ($2,000,000 \times .98)
EXERCISE 17-9 (Continued)

(b) Market value of bonds without warrants $1,960,000
   ($2,000,000 X .98)
Market value of warrants (2,000 X $30) 60,000
Total market value $2,020,000

\[
\frac{1,960,000}{2,020,000} \times 2,040,000 = 1,979,406 \quad \text{Value assigned to bonds}
\]

\[
\frac{60,000}{2,020,000} \times 2,040,000 = 60,594 \quad \text{Value assigned to warrants}
\]

Cash........................................................................................................... 2,040,000
Discount on Bonds Payable........................................ 20,594
Bonds Payable .......................................................... 2,000,000
Paid-in Capital—Stock Warrants .............. 60,594

EXERCISE 17-11 (15-25 minutes)

1/1/02 No entry

12/31/02 Compensation Expense................................. 175,000
Paid-in Capital—Stock Options ............ 175,000
($350,000 X 1/2) (To recognize compensation expense for 2002)

4/1/03 Paid-in Capital—Stock Options ............... 35,000
Compensation Expense............................... 35,000
($350,000 X 2,000/20,000) (To record termination of stock options held by resigned employees)

12/31/03 Compensation Expense......................... 175,000
Paid-in Capital—Stock Options ............ 175,000
($350,000 X 1/2) (To recognize compensation expense for 2003)

3/31/04 Cash (12,000 X $25)................................. 300,000
Paid-in Capital—Stock Options ............... 210,000
($350,000 \times 12,000/20,000)
Common Stock....................................... 120,000
Paid-in Capital in Excess of Par .......... 390,000
(To record exercise of stock options)

EXERCISE 17-21 (10-15 minutes)

<table>
<thead>
<tr>
<th>Event</th>
<th>Dates</th>
<th>Shares Outstanding</th>
<th>Shares of Year</th>
<th>Weighted Shares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning balance</td>
<td>Jan. 1–April 1</td>
<td>900,000</td>
<td>3/12</td>
<td>225,000</td>
</tr>
<tr>
<td>Issued shares</td>
<td>April 1–Oct. 1</td>
<td>1,350,000</td>
<td>6/12</td>
<td>675,000</td>
</tr>
<tr>
<td>Reacquired shares</td>
<td>Oct. 1–Dec. 31</td>
<td>1,240,000</td>
<td>3/12</td>
<td>310,000</td>
</tr>
</tbody>
</table>

Weighted average number of shares outstanding—unadjusted 1,210,000
Stock dividend, 2/15/03 1.05
Weighted average number of shares outstanding—adjusted 1,270,500

Net income $2,530,000
Preferred dividend (280,000 X $50 X 7%) (980,000)
$1,550,000

Earnings per share for 2002:

Net income applicable to common stock $1,550,000
Weighted average number of common shares outstanding 1,270,500

Earnings per share = $1.22

EXERCISE 17-23 (15-20 minutes)

(a) (1) Number of shares for basic earnings per share.

<table>
<thead>
<tr>
<th>Dates</th>
<th>Shares Outstanding</th>
<th>Shares of Year</th>
<th>Weighted Shares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 1–April 1</td>
<td>800,000</td>
<td>3/12</td>
<td>200,000</td>
</tr>
<tr>
<td>April 1–Dec. 1</td>
<td>1,200,000</td>
<td>9/12</td>
<td>900,000</td>
</tr>
</tbody>
</table>

Weighted average number of shares outstanding 1,100,000

OR
Number of shares for basic earnings per share:
Initial issue of stock 800,000 shares
April 1, 2001 issue (3/4 X 400,000) 300,000 shares
Total 1,100,000 shares

(2) Number of shares for diluted earnings per share.

<table>
<thead>
<tr>
<th>Dates</th>
<th>Shares</th>
<th>Fraction of Year</th>
<th>Weighted Shares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 1–April 1</td>
<td>800,000</td>
<td>3/12</td>
<td>200,000</td>
</tr>
<tr>
<td>April 1–July 1</td>
<td>1,200,000</td>
<td>3/12</td>
<td>300,000</td>
</tr>
<tr>
<td>July 1–Dec. 31</td>
<td>1,224,000*</td>
<td>6/12</td>
<td>612,000</td>
</tr>
</tbody>
</table>

Weighted average number of shares outstanding 1,112,000

*1,200,000 + [($600,000 ÷ 1,000) X 40]

(b) (1) Earnings for basic earnings per share:
After tax net income $1,540,000

(2) Earnings for diluted earnings per share:
After tax net income $1,540,000
Add back interest on convertible bonds (net of tax):
Interest ($600,000 X .08 X 1/2) $24,000
Less income taxes (40%) 9,600 14,400
Total $1,554,400

[Note to instructor: In this problem, the earnings per share computed for basic earnings per share is $1.40 ($1,540,000 ÷ 1,100,000) and the diluted earnings per share is $1.40 (technically $1.39784). As a result, only one earnings per share number would be presented.]
EXERCISE 17-25 (10-15 minutes)

(a) Net income $300,000
   Add: Interest savings (net of tax)
   [$120,000 X (1 – .40)] 72,000
   Adjusted net income $372,000

$2,000,000 ÷ $1,000 = 2,000 bonds
   X 15
   30,000 shares

Diluted EPS: $372,000 ÷ (100,000 + 30,000) = $2.86

EXERCISE 17-25 (Continued)

(b) Shares outstanding 100,000
   Add: Shares assumed to be issued (10,000* X 5) 50,000
   Shares outstanding adjusted for dilutive securities 150,000

*$1,000,000 ÷ $100

Diluted EPS: ($300,000 – $0) ÷ 150,000 = $2.00

Note: Preferred dividends are not deducted since preferred stock was assumed converted into common stock.

EXERCISE 17-26 (20-25 minutes)

(a) Shares assumed issued on exercise 1,000
   Proceeds (1,000 X $6 = $6,000)
   Treasury shares ($6,000/$20) 300
   Incremental shares 700

Diluted EPS = $50,000
           10,000 + 700
   = $4.67 (rounded)

(b) Diluted
Shares assumed issued on exercise  
Proceeds = $6,000  
Treasury shares ($6,000/$20)  

<table>
<thead>
<tr>
<th>Incremental shares</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,000</td>
</tr>
<tr>
<td>300</td>
</tr>
<tr>
<td>700</td>
</tr>
<tr>
<td>X 3/12</td>
</tr>
<tr>
<td>175</td>
</tr>
</tbody>
</table>

\[
\text{Diluted EPS} = \frac{50,000}{10,000 + 175} = \$4.91
\]

PROBLEM 17-3

1999. No journal entry would be recorded at the time the stock option plan was adopted. However, a memorandum entry in the journal might be made on November 30, 1999, indicating that a stock option plan had authorized the future granting to officers of options to buy 70,000 shares of $5 par value common stock at $8 a share.

2000

January 2

No entry

December 31

Compensation Expense...................................... 132,000  
Paid-in Capital—Stock Options .......................... 132,000  
(To record compensation expense attributable to 2000—22,000 options at $6 ($14 – $8))

2001

December 31

Compensation Expense...................................... 120,000  
Paid-in Capital—Stock Options .......................... 120,000  
(To record compensation expense
attributable to 2001—20,000 options at $6 ($14 – $8))

Paid-in Capital—Stock Options ......................... 132,000
Paid-in Capital from Expired Stock Options .................. 132,000
(To record lapse of president’s and vice president’s options to buy 22,000 shares)

(Note to instructor: This entry provides an opportunity to indicate when a credit to compensation expense might result. APB Opinion No. 25, as well as SFAS No. 123, states that if a stock option is not exercised because an employee fails to fulfill an obligation, the estimate of compensation expense recorded in previous periods should be adjusted (as a change in estimate) by decreasing compensation expense in the period of forfeiture and debit–ing the paid-in capital account.)

PROBLEM 17-3 (Continued)

2002

December 31

Cash (20,000 X $8)................................................ 160,000
Paid-in Capital—Stock Options ......................... 120,000
(20,000 X $6)
Common Stock (20,000 X $5)......................... 100,000
Paid-in Capital in Excess of Par......................... 180,000
(To record issuance of 20,000 shares of $5 par value stock upon exercise of options at option price of $8 and a market price of $14 at date of grant)

PROBLEM 17-8
(a) Basic EPS = \( \frac{\$1,200,000 - (\$3,000,000 \times 0.06)}{600,000} \) 
= \$1.70 per share

*\$6,000,000 ÷ 10

(b) Diluted EPS = 
\[
\frac{\text{Net income} - \text{Preferred dividends} + \text{Interest savings (net of tax)} + \text{Average common shares} + \text{Potentially dilutive common shares}}{\text{Net income} - \text{Preferred dividends} + \text{Interest savings (net of tax)} + \text{Average common shares} + \text{Potentially dilutive common shares}}
\]

= \( \frac{\$1,200,000 - \$180,000^a + \$96,000^b}{600,000 + 10,000^c + 80,000^d} \)

= \$1.62 per share

\(^a\$3,000,000 \times 0.06; \text{Preferred stock is not assumed converted since conversion would be antidilutive.}\)

\(^b\$2,000,000 \times 0.08 \times (1 - 0.40)\)

\(^c\frac{m - o}{m} \times \# \text{ of options} = \text{incremental shares}\)

\(\frac{$25 - $20}{$25} \times 50,000 = 10,000\)

\(^d($2,000,000 ÷ 1,000) \times 40 \text{ shares/bond}\)