# CHAPTER 14

Long-Term Liabilities

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</tr>
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</tr>
<tr>
<td>*P14-13</td>
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</tr>
</tbody>
</table>
BRIEF EXERCISE 14-3

(a)  
Cash ($300,000 X 98%) ................................................................. 294,000  
Discount on Bonds Payable ............................................................ 6,000  
Bonds Payable ................................................................................. 300,000

(b)  
Interest Expense ............................................................................. 15,600  
Discount on Bonds Payable ($6,000 / 10) ......................................... 600  
Cash ($300,000 X 10% X 6/12) ......................................................... 15,000

(c)  
Interest Expense ............................................................................. 15,600  
Discount on Bonds Payable ($6,000 / 10) ......................................... 600  
Interest Payable .............................................................................. 15,000

BRIEF EXERCISE 14-6

(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

(c)  
Interest Expense [($559,224 + $1,369) = $560,593 X 8% X 6/12] ...... 22,424  
Interest Payable .............................................................................. 21,000  
Discount on Bonds Payable ............................................................... 1,424

BRIEF EXERCISE 14-9

Current liabilities
Bond Interest Payable ........................................................................ $  80,000

Long-term liabilities
Bonds Payable, due January 1, 2021 .................................................... $2,000,000  
Less: Discount on Bonds Payable ....................................................... (88,000)  
$1,912,000

BRIEF EXERCISE 14-14

(a)  
Computer .......................................................................................... 31,495  
Discount on Notes Payable ................................................................ 8,505  
Notes Payable .................................................................................... 40,000

(b)  
Interest Expense ($31,495 X 12% X 12/12) ..................................... 3,779  
Cash ($40,000 X 5% X 12/12) .............................................................. 2,000  
Discount on Notes Payable ............................................................... 1,779
EXERCISE 14-2

(a) Contra account to bonds payable (liability; most likely long-term) on balance sheet.
(b) Reclassify to interest payable and report as current liability on balance sheet.
(c) Deferred asset reported in "Other Assets" on balance sheet.
(d) Nonoperating item (other gain) on the income statement.
(e) Classify 1/3 as current liability and the remainder as long-term liability on balance sheet.
(f) Long-term liability on balance sheet.
(g) Adjunct account to Bonds Payable (liability; most likely long-term) on balance sheet.
(h) Long-term liability on balance sheet.
(i) Long-term liability on balance sheet.

EXERCISE 14-3 (situation 2 only)
2. (a) 6/1/12
   Cash .......................................................... 210,000
   Bonds Payable .................................................. 200,000
   Interest Expense ($200,000 X 12% X 5/12) ............ 10,000
   (alternately, could cr Interest Payable)

   (b) 7/1/12
   Interest Expense ............................................... 12,000
   Cash ($200,000 X 12% X 6/12) ............................. 12,000
   (alternately, if cr Interest Payable on 6/1, must dr Interest Payable for $10,000 & Interest Expense for $2,000)

   (c) 12/31/12
   Interest Expense ............................................... 12,000
   Interest Payable ............................................... 12,000

EXERCISE 14-7 (Hint: the effective-interest rate is 12%).

<table>
<thead>
<tr>
<th>Date</th>
<th>10% Cash Interest Paid</th>
<th>12% Interest Expense</th>
<th>Discount Amortization</th>
<th>Bonds Payable Carrying Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 1, 2012</td>
<td>$3,000,000 x 10%</td>
<td>(b) prior CV x 12%</td>
<td>(c) (b) – (a)</td>
<td>(d) prior CV + (c)</td>
</tr>
<tr>
<td>Jan. 1, 2013</td>
<td>$300,000</td>
<td>$334,047</td>
<td>$34,047</td>
<td>$2,783,724</td>
</tr>
<tr>
<td>Jan. 1, 2014</td>
<td>300,000</td>
<td>338,133</td>
<td>38,133</td>
<td>2,817,771</td>
</tr>
<tr>
<td>Jan. 1, 2015</td>
<td>300,000</td>
<td>342,708</td>
<td>42,708</td>
<td>2,855,904</td>
</tr>
<tr>
<td>Jan. 1, 2016</td>
<td>300,000</td>
<td>347,833</td>
<td>47,833</td>
<td>2,898,612</td>
</tr>
<tr>
<td>Jan. 1, 2017</td>
<td>300,000</td>
<td>353,555*</td>
<td>53,555</td>
<td>3,000,000</td>
</tr>
</tbody>
</table>

* (a) $3,000,000 x 10%  (b) prior CV x 12%  (c) (b) – (a)  (d) prior CV + (c)

* difference due to rounding (amortization must be amount to make CV = $3,000,000)
EXERCISE 14-9

(a) 1. 6/30/12  
   Cash................................................................. 5,376,150
   Bonds Payable.................................................. 5,000,000
   Premium on Bonds Payable................................. 376,150

2. 12/31/12  
   Interest Expense .................................................. 322,569
   Premium on Bonds Payable .................................. 2,431
   Cash ................................................................. 325,000

3. 6/30/13  
   Interest Expense .................................................. 322,423
   Premium on Bonds Payable .................................. 2,577
   Cash ................................................................. 325,000

4. 12/31/13  
   Interest Expense .................................................. 322,269
   Premium on Bonds Payable .................................. 2,731
   Cash ................................................................. 325,000

Amortization Schedule -- Effective-Interest Method

<table>
<thead>
<tr>
<th>Date</th>
<th>Cash Paid (13%, semi)</th>
<th>Interest Expense (12%, semi)</th>
<th>Premium Amortization</th>
<th>Carrying Value Bond Payable</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/30/12</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>$5,376,150</td>
</tr>
<tr>
<td>12/31/12</td>
<td>$325,000*</td>
<td>$322,569**</td>
<td>$2,431</td>
<td>5,373,719</td>
</tr>
<tr>
<td>6/31/13</td>
<td>325,000</td>
<td>322,423</td>
<td>2,577</td>
<td>5,371,142</td>
</tr>
<tr>
<td>12/31/13</td>
<td>325,000</td>
<td>322,269</td>
<td>2,731</td>
<td>5,368,411</td>
</tr>
</tbody>
</table>

* $5,000,000 x 13% x 6/12  
** $5,376,150 x 12% x 6/12

(b) Balance Sheet presentation at December 31, 2013:
   Long-term Liabilities:
   Bonds payable, 13% (due on June 30, 2032) ........................................... $5,000,000
   Premium on Bonds Payable [$376,150 – ($2,431 + $2,577 + $2,731)] ............ 368,411
   Carrying value of bonds payable .............................................................. $5,368,411

EXERCISE 14-10

(a) 1/1/12  
   Cash................................................................. 860,652
   Premium on Bonds Payable........................................ 60,652
   Bonds Payable.................................................. 800,000

(b) Amortization Schedule (Effective-Interest Method)

<table>
<thead>
<tr>
<th>Date</th>
<th>Cash Paid (12%)</th>
<th>Interest Expense (10%)</th>
<th>Premium Amortization</th>
<th>Bonds Payable Carrying Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/1/12</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>$860,652</td>
</tr>
<tr>
<td>12/31/12</td>
<td>$96,000</td>
<td>$86,065</td>
<td>$9,935</td>
<td>850,717</td>
</tr>
<tr>
<td>12/31/13</td>
<td>96,000</td>
<td>85,072</td>
<td>10,928</td>
<td>839,789</td>
</tr>
<tr>
<td>12/31/14</td>
<td>96,000</td>
<td>83,979</td>
<td>12,021</td>
<td>827,768</td>
</tr>
</tbody>
</table>

(a) $800,000 x 12%
(b) prior CV x 10%
(c) (a) – (b)
(d) (4) prior CV – (c)

(c) 12/31/12  
   Interest Expense .................................................. 86,065
   Premium on Bonds Payable.......................................... 9,935
   Cash ................................................................. 96,000

(d) 12/31/14  
   Interest Expense .................................................. 83,979
   Premium on Bonds Payable.......................................... 12,021
   Cash ................................................................. 96,000
EXERCISE 14-11

<table>
<thead>
<tr>
<th>(1)</th>
<th>Maturity value</th>
<th>Unsecured Bonds</th>
<th>$10,000,000</th>
<th>Zero-Coupon Bonds</th>
<th>$25,000,000</th>
<th>Mortgage Bonds</th>
<th>$15,000,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2)</td>
<td>Number of interest periods</td>
<td>40 (10 x 4)</td>
<td>10</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3)</td>
<td>Stated rate per period</td>
<td>3.25% (13% / 4)</td>
<td>0%</td>
<td>10%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4)</td>
<td>Effective rate per period</td>
<td>3% (12% / 4)</td>
<td>12%</td>
<td>12%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5)</td>
<td>Interest payment per period</td>
<td>$325,000&lt;sup&gt;(a)&lt;/sup&gt;</td>
<td>$0</td>
<td>$1,500,000&lt;sup&gt;(b)&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(6)</td>
<td>Present value</td>
<td>$10,577,900&lt;sup&gt;(c)&lt;/sup&gt;</td>
<td>$8,049,250&lt;sup&gt;(d)&lt;/sup&gt;</td>
<td>$13,304,880&lt;sup&gt;(e)&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>(a)</sup>$10,000,000 X 13% X 3/12 = $325,000  
<sup>(b)</sup>$15,000,000 X 10% = $1,500,000  
<sup>(c)</sup>PV interest ($325,000 X PVOA 3%,40) = ($325,000 X 23.11477) = $7,512,300  
PV principal ($10,000,000 X PVSS 3%,40) = ($10,000,000 X .30656) = $3,065,600  
$10,577,900  
<sup>(d)</sup>PV principal ($25,000,000 X PVSS 12%,10) = ($25,000,000 X .32197) = $8,049,250  
<sup>(e)</sup>PV interest ($1,500,000 X PVOA 12%,10) = ($1,500,000 X 5.65022) = $8,475,330  
PV principal ($15,000,000 X PVSS 12%,10) = ($15,000,000 X .32197) = $4,829,550  
$13,304,880

EXERCISE 14-13

Cash ($7,000,000 x .98) .......................................................... 6,860,000  
Discount on Bonds Payable .................................................. 140,000  
Bonds Payable ................................................................. 7,000,000  
Bonds Payable ................................................................. 5,000,000  
Loss on Redemption of Bonds [($5,100,000 − ($5,000,000 − $120,000 − $30,000))] 250,000  
Cash ($5,000,000 X 1.02) .................................................. 5,100,000  
Discount on Bonds Payable .................................................. 120,000  
Unamortized Bond Issue Costs ........................................... 30,000

EXERCISE 14-14

(a) 6/30/13  
Bonds Payable ................................................................. 600,000  
Loss on Redemption of Bonds [($624,000 − ($600,000 − $6,600))] 30,600  
Discount on Bonds Payable ($12,000* − $5,400**) 6,600  
Cash ($600,000 X 104%) 624,000  
* total discount = $600,000 x 2%; **amort = $12,000 x 9/20  
Cash ($800,000 X 102%) .................................................. 816,000  
Premium on Bonds Payable .................................................. 16,000  
Bonds Payable ................................................................. 800,000

(b) 12/31/13  
Interest Expense .......................................................... 39,600  
Premium on Bonds Payable ($16,000 / 40) 400  
Cash ($800,000 x 10% x 6/12) .................................................. 40,000
EXERCISE 14-17 (situation a only)

Record land at 1/1/13 using PV of note to determine fair value of transaction (no established exchange price for land): ($600,000 principal x PVSS 12%, 3 (.71178)) $427,068

2013 Interest expense = ($427,068 x 12%) $ 51,248

EXERCISE 14-21

(a) Strickland Company (Debtor):
   Note Payable .......................................................... 200,000
   Interest Payable .......................................................... 18,000
   Accumulated Depreciation—Machine .................................. 221,000
   Machine .......................................................................... 390,000
   Gain on Disposition of Machine [$180,000 – ($390,000 – $221,000)] .... 11,000
   Gain on Debt Restructuring [($200,000 + $18,000) – $180,000] ........ 38,000

Moran State Bank (Creditor):
   Machine ................................................................. 180,000
   Allowance for Doubtful Accounts ...................................... 38,000
   Note Receivable .......................................................... 200,000
   Interest Receivable ....................................................... 18,000

(b) “Gain on Machine Disposition” and the “Gain on Debt Restructuring” should be reported as an ordinary gain in the income statement.

(c) Strickland Company (Debtor):
   Note Payable .......................................................... 200,000
   Interest Payable .......................................................... 18,000
   Common Stock (15,000 x $10 par) .................................... 150,000
   Additional Paid-in Capital ($180,000 – $150,000) ...................... 30,000
   Gain on Debt Restructuring ............................................ 38,000

Moran State Bank (Creditor):
   Investment (Trading) ..................................................... 180,000
   Allowance for Doubtful Accounts ...................................... 38,000
   Note Receivable .......................................................... 200,000
   Interest Receivable ....................................................... 18,000

EXERCISE 14-25

(a) Pre-restructuring carrying value of note .......................................................... $3,000,000
   Less: Present value of restructured future cash flows:
   PV of principal [$1,900,000 x PVSS 12%, 3 (.71178)] ............. $1,352,382
   PV of interest [$190,000 x PV, OA 12%, 3 (2.40183)] ............. 456,348
   Loss on debt restructuring ......................................................... $1,808,730

12/31/12 Bad Debt Expense .......................................................... 1,191,270
   Allowance for Doubtful Accounts ......................................... 1,191,270
EXERCISE 14-25 continued

(b) **AMERICAN BANK**

<table>
<thead>
<tr>
<th>Date</th>
<th>Cash Interest (10%)</th>
<th>Interest Revenue (12%)</th>
<th>Increase in Carrying Value</th>
<th>Note Receivable Carrying Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/31/12</td>
<td>$1,808,730</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12/31/13</td>
<td>$190,000</td>
<td>$217,048</td>
<td>$27,048</td>
<td>1,835,778</td>
</tr>
<tr>
<td>12/31/14</td>
<td>190,000</td>
<td>220,293</td>
<td>30,293</td>
<td>1,866,071</td>
</tr>
<tr>
<td>12/31/15</td>
<td>190,000</td>
<td>223,929</td>
<td>33,929</td>
<td>1,900,000</td>
</tr>
</tbody>
</table>

\[ a \ (\$1,900,000 \times 10\%) \quad b \ (\$1,808,730 \times 12\%) \quad c \ (\$217,048 – \$190,000) \]

(c) 12/31/13

<table>
<thead>
<tr>
<th>Cash</th>
<th>Allowance for Doubtful Accounts</th>
<th>Interest Revenue</th>
<th>190,000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>27,048</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>217,048</td>
</tr>
</tbody>
</table>

12/31/14

<table>
<thead>
<tr>
<th>Cash</th>
<th>Allowance for Doubtful Accounts</th>
<th>Interest Revenue</th>
<th>190,000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>30,293</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>220,293</td>
</tr>
</tbody>
</table>

12/31/15

<table>
<thead>
<tr>
<th>Cash</th>
<th>Allowance for Doubtful Accounts</th>
<th>Interest Revenue</th>
<th>190,000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>33,929</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>223,929</td>
</tr>
</tbody>
</table>

(d) 1/1/16

<table>
<thead>
<tr>
<th>Cash</th>
<th>Allowance for Doubtful Accounts</th>
<th>Note Receivable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,100,000</td>
<td></td>
<td>3,000,000</td>
</tr>
<tr>
<td>1,900,000</td>
<td></td>
<td>2,000,000</td>
</tr>
</tbody>
</table>

EXERCISE 14-27

(a) Debtor: Because the $270,000 carrying value of the debt exceeds the total future cash payments of $242,000 [$220,000 + ($11,000 X 2)], Vargo recognizes a gain on restructure and all future cash payments are recorded as principal reduction of the note (i.e., no interest expense since effective interest rate is 0%).

12/31 2012 Note Payable ($270,000 – $242,000).................................................................. 28,000

Gain on Debt Restructuring ................................................................. 28,000

12/31 2013 Note Payable ......................................................................................... 11,000

Cash ($220,000 x 5%) .................................................................................. 11,000

12/31 2014 Note Payable .......................................................................................... 231,000

Cash ($220,000 principal + $11,000 interest)................................................. 231,000

(b) Creditor

12/31/12 Bad Debt Expense .................................................................................. 76,027

Allowance for Doubtful Accounts ................................................................ 76,027

Pre-restructure carrying value $270,000

Present value of restructured cash flows:

PV of principal [$220,000 X PV,SS 12%,2 (.79719)] ......................... $175,382

PV of interest [(11,000 X PV,OA 12%, 2 (1.69005)] ......................... 18,591

Creditor’s loss on restructure ......................................................... $ (76,027)
EXERCISE 14-27 continued

<table>
<thead>
<tr>
<th>Date</th>
<th>Cash Interest Received 5%</th>
<th>Interest Revenue 12%</th>
<th>Increase in Carrying Value</th>
<th>Note Receivable Carrying Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/31/12</td>
<td>$11,000&lt;sup&gt;a&lt;/sup&gt;</td>
<td>$23,277&lt;sup&gt;b&lt;/sup&gt;</td>
<td>$12,277&lt;sup&gt;c&lt;/sup&gt;</td>
<td>$193,973</td>
</tr>
<tr>
<td>12/31/13</td>
<td>11,000</td>
<td>24,750</td>
<td>13,750</td>
<td>206,250</td>
</tr>
<tr>
<td>12/31/14</td>
<td></td>
<td></td>
<td></td>
<td>220,000</td>
</tr>
</tbody>
</table>

<sup>a</sup> ($220,000 X 5%)  
<sup>b</sup> ($193,973 X 12%)  
<sup>c</sup> ($23,277 – $11,000)

PROBLEM 14-2 (Req. a & b only)

(a)  
PV of principal [$2,000,000 X .38554 (PVSS<sub>10</sub>%, 10)] ................. $ 771,080  
PV of interest [$210,000* X 6.14457 (PVOA<sub>10</sub>%, 10)] ................. 1,290,360  
Present value (selling price of the bonds) ................. $2,061,440

* $2,000,000 X 10.5% = $210,000

Cash ($2,061,440 – $50,000) ........................................ 2,011,440  
Unamortized Bond Issue Costs ........................................ 50,000  
Bonds Payable .................................................. 2,000,000  
Premium Bonds Payable ........................................ 61,440

(b)  
<table>
<thead>
<tr>
<th>Date</th>
<th>Cash Interest Paid (10.5%)</th>
<th>Interest Expense (10%)</th>
<th>Premium Amortization</th>
<th>Bonds Payable Carrying Value</th>
</tr>
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<tr>
<td>1/1/11</td>
<td></td>
<td></td>
<td></td>
<td>$2,061,440</td>
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<tr>
<td>1/1/12</td>
<td>$210,000</td>
<td>$206,144</td>
<td>$3,856</td>
<td>2,057,584</td>
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<tr>
<td>1/1/13</td>
<td>210,000</td>
<td>205,758</td>
<td>4,242</td>
<td>2,053,342</td>
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<tr>
<td>1/1/14</td>
<td>210,000</td>
<td>205,334</td>
<td>4,666</td>
<td>2,048,676</td>
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<tr>
<td>1/1/15</td>
<td>210,000</td>
<td>204,868</td>
<td>5,132</td>
<td>2,043,544</td>
</tr>
</tbody>
</table>

PROBLEM 14-4 (a. only)

(a)  
To record the issuance of the 11% bonds on December 18, 2012:  
Cash ($4,000,000 x 102%) ........................................ 4,080,000  
Bonds Payable .................................................. 4,000,000  
Premium on Bonds Payable ........................................ 80,000

To record the retirement of the 9% bonds on January 2, 2013:  
Bonds Payable .................................................. 3,000,000  
Loss on Bond Redemption ........................................ 180,000  
Discount on Bonds Payable [(150,000 – ($150,000 X 15/25)] ....... 60,000  
Cash ($3,000,000 x 104%) ........................................ 3,120,000
PROBLEM 14-5 (Case 2 only; do JE’s only through 6/1/13)

6/1/12  Cash* .......................................................... 425,853
         Premium on Bonds Payable .................................. 25,853
         Bonds Payable .................................................. 400,000

* PV of principal [$400,000 X PVSS 5%,8 (.67684)] .................. $270,736
PV of interest [$24,000 X PVOA 5%,8 (6.46321)] .................... 155,117
Selling price ......................................................... $ 425,853

12/1/12  Interest Expense ............................................ 21,293
         Premium on Bonds Payable ..................................  2,707
         Cash ............................................................  24,000

12/31/12  Interest Expense ($21,157 X 1/6) ..........................  3,526
          Premium on Bonds Payable ($2,843 X 1/6) ...............  474
          Interest Payable ($24,000 X 1/6) .........................  4,000

6/1/13  Interest Payable ...............................................  4,000
        Interest Expense ($21,157 X 5/6) .......................... 17,631
        Premium on Bonds Payable ($2,843 X 5/6) ...............  2,369
        Cash ..........................................................  24,000

<table>
<thead>
<tr>
<th>Date</th>
<th>Cash Interest Paid (12%, semi)</th>
<th>Interest Expense (10%, semi)</th>
<th>Premium Amortization</th>
<th>Bonds Payable Carrying Value</th>
</tr>
</thead>
<tbody>
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<td>6/1/12</td>
<td>24,000 (a)</td>
<td>21,293 (b)</td>
<td>2,707 (c)</td>
<td>425,853</td>
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<td>12/1/12</td>
<td>24,000</td>
<td>21,157</td>
<td>2,843</td>
<td>423,146</td>
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<tr>
<td>6/1/13</td>
<td>24,000</td>
<td>21,157</td>
<td>2,843</td>
<td>420,303</td>
</tr>
</tbody>
</table>

(a) ($400,000 x 12% x 6/12)  (b) ($425,853 x 10% x 6/12)  (c) ($24,000 – $21,293)

PROBLEM 14-8

(a) 12/31/12  Computer  [$600,000 X PVSS 10%,4 (.68301)] ............ 409,806
     Discount on Notes Payable ..................................... 190,194
     Notes Payable .................................................... 600,000

(b) 12/31/13  Depreciation Expense  [($409,806 – $70,000) / 5] ....... 67,961
             Accumulated Depreciation—Computer ........................ 67,961
             Interest Expense ........................................... 40,981
             Discount on Notes Payable .................................. 40,981

(c) 12/31/14  Depreciation Expense .................................... 67,961
             Accumulated Depreciation—Computer ........................ 67,961
             Interest Expense ........................................... 45,079
             Discount on Notes Payable .................................. 45,079

Amortization Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Interest Expense (10%) &amp; Discount Amortization*</th>
<th>Notes Payable Carrying Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/31/12</td>
<td>$409,806</td>
<td>$409,806</td>
</tr>
<tr>
<td>12/31/13</td>
<td>40,981</td>
<td>450,787</td>
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<tr>
<td>12/31/14</td>
<td>45,079</td>
<td>495,866</td>
</tr>
</tbody>
</table>

* discount amortization = interest expense since no cash paid for interest
PROBLEM 14-12 (b. only)

1. No entry needed (no gain recognized since undiscounted restructured future cash payments of $900,000 [principal $600,000 + interest ($600,000 x 5% x 10)] are greater than the $600,000 carrying value.

2. Bad Debt Expense ................................................................. 237,311*
   Allowance for Doubtful Accounts ........................................... 237,311

Pre-restructure carrying value $600,000
Present value of restructured cash flows:
PV of principal [$600,000 X PVSS 12%,10 (.32197)] .................. $193,182
PV of interest [$30,000 X PVOA 12%,10 (5.65022)] ................. 169,507 (362,689)
Creditor’s loss on restructure .................................................. $237,311

PROBLEM 14-13

(a) Debtor: Notes payable .......................................................... 5,000,000
   Common Stock ................................................................. 1,700,000
   Additional Paid-in Capital .................................................. 2,000,000
   Gain on Debt Restructuring ($5,000,000 – $3,700,000) .......... 1,300,000

Creditor: Investment in Halvor .................................................. 3,700,000
   Allowance for Doubtful Accounts ......................................... 1,300,000
   Notes Receivable ............................................................. 5,000,000

(b) Debtor: Notes Payable .......................................................... 5,000,000
   Land ............................................................................... 3,250,000
   Gain on Land Disposal ($4,000,000 – $3,250,000) ............. 750,000
   Gain on Debt Restructuring ($5,000,000 – $4,000,000) ....... 1,000,000

Creditor: Investment in Land .................................................. 4,000,000
   Allowance for Doubtful Accounts ......................................... 1,000,000
   Notes Receivable ............................................................. 5,000,000

(c) Debtor: No entry needed (no gain recognized since undiscounted restructured future cash payments (principal) of $5,000,000 equal the carrying value of $5,000,000).

Creditor: Bad Debt Expense ..................................................... 1,243,400*
   Allowance for Doubtful Accounts ......................................... 1,243,400

* Pre-restructure carrying value .............................................. $5,000,000
Less: PV restructured cash flows: principal [$5,000,000 X PVSS 10%,3 (.75132)] 3,756,600
Creditor’s loss on restructure ................................................ 1,243,400

(d) Debtor: No entry needed (no gain recognized since undiscounted restructured future cash payments of $5,000,000 [Principal $4,166,667 + Interest ($4,166,667 X 10% X 2)] equal the carrying value of $5,000,000).

Creditor: Bad Debt Expense ..................................................... 1,212,099*
   Allowance for Doubtful Accounts ......................................... 1,212,099

* Pre-restructure carrying value .............................................. $5,000,000
Less: Present value of restructured cash flows:
PV of principal [$4,166,667 X PVSS 10%,3 (.75132)] ............ $3,130,500
PV of interest (deferred annuity n=2, deferred 1 year)
[$416,667 X PVOA 10%,2 (1.73554) X PVSS 10%,1 (.90909)] .......... 657,401 3,787,901
Creditor’s loss on restructure ................................................ 1,212,099