**PART 1: Requirement 1, Statement of Cash Flows, indirect method**

|  |
| --- |
| **Espresso Roasters, Inc.** |
| **Statement of Cash Flows** |
| **Year Ended December 31, 20X6** |
| **Cash flows from operating activities:** |  |  |
|  Net income |  |  $ 68,900  |
|  Adjustments to reconcile net income to |  |  |
|  net cash provided by operating activities: |  |  |
|  Depreciation | $ 26,000  |  |
|  Decrease in accounts receivable | 17,000  |  |
|  Decrease in inventory | 61,000  |  |
|  Increase in prepaid expenses | (700)  |  |
|  Increase in accounts payable | 11,000  |  |
|  Decrease in accrued liabilities |  (81,000)  |  33,300  |
|  \*Payment of dividends |  | (13,000) |
|  Net cash provided by operating activities |  |  **89,200**  |
|  |  |  |
| **Cash flows from investing activities:** |  |  |
|  Acquisition of PPE | $(160,000)  |  |
|  Proceeds from sale of land |  27,000  |  |
|  Net cash used for investing activities |  | (133,000) |
|  |  |  |
| **Cash flows from financing activities:** |  |  |
|  Proceeds from issuance of shares | $ 80,000  |  |
|  Payment of long-term note payable |  (17,000)  |  |
|  Net cash provided by financing activities |  |  63,000  |
| Net increase in cash |  |  $ 19,200 |
| Cash balance, December 31, 20X5 |  |  10,800 |
| Cash balance, December 31, 20X6 |  |  **$ 30,000** |
|  |  |  |
| **Noncash investing and financing activities:** |  |  |
|  Acquisition of PPE by issuing note payable |  $ 52,000  |

\*Note that payment of dividends needs to be subtracted from operating cash flows here to follow the instructions in the question to include dividends and interest in operating cash flows.

**PART 1: Requirement 2, Statement of Cash Flows, direct method**

|  |
| --- |
| **Espresso Roasters, Inc.** |
| **Statement of Cash Flows** |
| **Year Ended December 31, 20X6** |
| **Cash flows from operating activities:** |  |  |
| Cash inflows from customers | $300,000  |  |
| Cash outflows to suppliers |  (31,000) |  |
| Cash outflows for operating expenses |  (164,200) |  |
| Dividend receipt | 8,000  |  |
| Interest payment |  (2,600) |  |
| Dividend payment |  (13,000) |  |
| Tax payment |  (8,000) |  |
|  Net cash provided by operating activities |  |  **89,200**  |
|  |  |  |
| **Cash flows from investing activities:** |  |  |
|  Acquisition of PPE | $(160,000)  |  |
|  Proceeds from sale of land |  27,000  |  |
|  Net cash used for investing activities |  | **(133,000)** |
|  |  |  |
| **Cash flows from financing activities:** |  |  |
|  Proceeds from issuance of shares | $80,000  |  |
|  Payment of long-term note payable | (17,000)  |  |
|  Net cash provided by financing activities |  |  **63,000**  |
| Net increase in cash |  |  **$19,200** |
| Cash balance, December 31, 20X5 |  |  10,800 |
| Cash balance, December 31, 20X6 |   |  **$ 30,000** |
|  |  |  |
| **Noncash investing and financing activities:** |  |  |
|  Acquisition of PPE by issuing note payable |  $ 52,000  |

*Note that only the operating cash flows section is different from the first part. This is because our choice of indirect and direct only affects the operating cash flows sections – the other sections only have 1 way to compute them.*

Work:

|  |
| --- |
| A/R |
| Start | 59,000 | Cash collection | 300,000 |
|  | 283,000 |   |  |
| End | 42,000 |   |   |

|  |  |  |
| --- | --- | --- |
| Inventory |  | A/P |
| Start | 91,000 | 103000 |   |  | Cash Payment | 31,000 | Start | 27,000 |
| Purchase | 42,000 |   |  |  |  |  | Purchase | *42,000* |
| End | 30,000 |   |   |  |   |   | End | 38,000 |

|  |  |  |
| --- | --- | --- |
| Prepaid expense |   | Accrued liabilities |
| Start | 8,700 | Expense incurred |   | Cash Payment | Start | 99,000 |
| Cash Payment |   |   |   |   |   | Expense incurred |
| End | 9,400 |   |   |   |   |   | End | 18,000 |

Looking through the income statement, there are just 2 operating expenses that are cash related: salary expense (78,000) and advertising expense (4,500). Adding these together yields incurred expenses of 82,500. If we assume all of these were simply accrued and then paid, we can set Expense incurred under accrued liabilities to the full amount of 82,500 and Expense incurred under prepaid expenses to 0. Then, we can solve for cash payment.

|  |  |  |
| --- | --- | --- |
| Prepaid expense |   | Accrued expense  |
| Start | 8,700 | Expense incurred | 0 |   | Cash Payment | Start | 99,000 |
| Cash Payment | *700* |   |   |   | *= 163,500* |   | Expense incurred | 82,500 |
| End | 9,400 |   |   |   |   |   | End | 18,000 |

Then, we need to sum together the two cash payments to get 164,200 of cash outflows from operating expenses.

**PART 2: Financial Statement Analysis**

1. Ratios

|  |  |
| --- | --- |
| Ratio | Value |
| Current Ratio | 111,400 / 56,000 = 1.99 |
| Quick ratio | 72,000 / 56,000 = 1.29 |
| Receivable turnover | 283,000 / (0.50 x (42,000 + 59,000)) = 5.60 |
| Inventory Turnover | 103,000 / (0.50 x (30,000 + 91,000)) = 1.70 |
| Payable Turnover | 103,000 / (0.50 x (38,000 + 27,000)) = 3.17 |
| Cash conversion cycle | 365 / 1.70 + 365 / 5.60 – 365 / 3.17 = 164.74(with interim rounding) |
| Debt Ratio | 206,000 / 311,400 = 0.66 |
| Return on Assets | 68,900 / (0.50 x (311,400 + 369,500)) = 0.20 |
| Return on Equity | 68,900 / (0.50 x (105,400 + 93,500)) = 0.69 |

Assets­20X6 = 311,400; Liabilities20X6 = 206,000; Equity20X6 = Assets20X6 – Liabilities20X6 = 105,400
Assets20X5 = 369,500; Liabilities20X5 = 276,000; Equity20X5 = Assets20X5 – Liabilities20X5 = 93,500

2. Comparison

The company seems to have better coverage for its debt than average, and at the same time seems to be more highly leveraged. The leverage is the cause of the company’s particularly high return on equity value, but it does not account for the high return on assets. When examining the turnover ratios, it appears that the company is not overly efficient compared to the industry either. Thus, the most likely cause of its seemingly strong performance is that it runs the business using a much smaller asset base than competitors, allowing it to incur fewer expenses and maintain larger margins.

**PART 3: Liabilities (Bonds)**

1. Bond price

P = 100M, T = 20, CF = 3.5M, r = 4%

$$Price=\frac{CF}{r}\left[1-\frac{1}{\left(1+r\right)^{T}}\right]+\frac{P}{\left(1+r\right)^{T}}=\$93,204,837$$

2. Carrying value on January 1, 2016 after interest payment.

$$Interest Expense=Carry×\frac{r}{m}$$

$$Interest Paid or Payable=\frac{C}{m}$$

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Period | Carry at start | Interest Expense | Interest Paid | Carry at end |
| 1 | 93,204,837 | 3,728,193 | 3,500,000 | 93,433,030 |
| 2 | 93,433,030 | 3,737,321 | 3,500,000 | 93,670,352 |
| 3 | 93,670,352 | 3,746,814 | 3,500,000 | 93,917,166 |
| 4 | 93,917,166 | 3,756,687 | 3,500,000 | 94,173,852 |

Book value is another term for carrying value, so book value on January 1, 2016 is $94,173,852.

3. Price on January 1, 2016

P = 100M, T = 16, CF = 3.5M, r = 3%

$$Price=\frac{CF}{r}\left[1-\frac{1}{\left(1+r\right)^{T}}\right]+\frac{P}{\left(1+r\right)^{T}}=\$106,280,551$$

4. Bond retirement.

Discount account amount is face value (100,000,000) minus previous carry (94,173,852), and thus is 5,8226,148.

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Account | DR | CR |
| MAR 1, 2016 | Bond payable | 100,000,000 |  |
|  | Loss on bond retirement | 12,106,669 |  |
|  | Cash |  | 106,280,551 |
|  | Discount on bond payable |  | 5,826,148 |

**PART 4: Bank Reconciliation**

|  |
| --- |
| **Latte Lab** |
| **Bank Reconciliation** |
| **June 30, 2010** |
| BANK: |  |  |
|  **Balance, June 30** |  | **$ 399** |
|  Add: Deposit in transit |  | 1,210 |
|  Less: Outstanding checks: |  |  |
|  Check No. |  |  |
|  626 | $ 85 |  |
|  627 |  285 |  (370) |
|  **Adjusted bank balance** |  | **$1,239**  |
|  |  |  |
| BOOKS: |  |  |
|  **Balance, June 30** |  | **$1,287**  |
|  Less: |  |  |
|  Correction of book error —  |  |  |
|  Recorded $86 check as $68 | $ 18 |  |
|  NSF check | 20 |  |
|  Service charge |  10 |  (48) |
|  **Adjusted book balance** |  | **$1,239**  |

**PART 5: Assets**

1. **Include** -- company pays for the shipping.
2. **Include** – set up cost.
3. Ignore – shipping covered by supplier.
4. Ignore – no cost incurred because the output is usable.
5. **Include** – set up cost.
6. **Include** – extending useful life
7. Ignore – no extension of useful life and not at the start of the machine’s life.
8. **Include** – company pays for the shipping.
9. **Include** – set up cost.
10. Ignore – not part of setting up the building.

**PART 6: Equity**

1. Increase Common shares, Increase Cash

|  |  |  |
| --- | --- | --- |
| DR Cash | 250,000 |  |
|  CR Common shares |  | 250,000 |

1. Increase Dividends, Increase Dividends payable

|  |  |  |
| --- | --- | --- |
| DR Dividends | 10,000 |  |
|  CR Dividends payable |  | 10,000 |

1. Decrease Cash, Decrease Dividends payable

|  |  |  |
| --- | --- | --- |
| DR Dividends payable | 10,000 |  |
|  CR Cash |  | 10,000 |

1. Decrease Cash, Increase Treasury shares

|  |  |  |
| --- | --- | --- |
| DR Treasury shares | 16,000 |  |
|  CR Cash |  | 16,000 |

1. Increase Cash, Decrease Treasury shares, Decrease Retained earnings

|  |  |  |
| --- | --- | --- |
| DR Cash | 3,800 |  |
| DR Retained earnings | 200 |  |
|  CR Treasury shares |  | 4,000 |

1. Increase Cash, Decrease Treasury shares, Increase Additional paid in capital, Increase Retained earnings

|  |  |  |
| --- | --- | --- |
| DR Cash | 4,400 |  |
|  CR Retained earnings |  | 200 |
|  CR Additional paid in capital (APIC) |  | 200 |
|  CR Treasury shares |  | 4,000 |

1. Increase Cash, Decrease Treasury shares, Decrease Additional paid in capital

|  |  |  |
| --- | --- | --- |
| DR Cash | 3,800 |  |
| DR Additional paid in capital (APIC) | 200 |  |
|  CR Treasury shares |  | 4,000 |

1. Increase Cash, Decrease Treasury shares, Increase Additional paid in capital

|  |  |  |
| --- | --- | --- |
| DR Cash | 4,400 |  |
|  CR Additional paid in capital (APIC) |  | 400 |
|  CR Treasury shares |  | 4,000 |

**PART 7: Adjusting Entries**

a. A physical count at December 31 shows that $5,895 of supplies is still on hand.

|  |  |  |
| --- | --- | --- |
| DR Supplies expense | 1,950 |  |
|  CR Supplies |  | 1,950 |

b. The company rented an office for a year and prepaid a full rental fee of $27,000 in cash on October 1.

|  |  |  |
| --- | --- | --- |
| DR Rent expense | 6,750 |  |
|  CR Prepaid rent |  | 6,750 |

27,000 x 3/12 = 6,750

c. The company purchased a one-year fire insurance plan for $3,120 and paid in advance on July 1.

|  |  |  |
| --- | --- | --- |
| DR Insurance expense | 1,560 |  |
|  CR Prepaid insurance |  | 1,560 |

3,120 x 6/12 = 1,560

d. Wages earned by employees in December 2012 are $7,500, and yet they will not be paid until January 5, 2013.

|  |  |  |
| --- | --- | --- |
| DR Wage expense | 7,500 |  |
|  CR Wages payable |  | 7,500 |

e. On December 15, 2012, a bill for $235 was received for utilities, but it will not be paid until January 15, 2013.

|  |  |  |
| --- | --- | --- |
| DR Utilities expense | 235 |  |
|  CR Utilities payable |  | 235 |

f. On September 1, the company rented its land to Latte Lab for a year and received a full year of rent of $132,000 in cash.

|  |  |  |
| --- | --- | --- |
| DR Unearned rent revenue | 44,000 |  |
|  CR Rent revenue |  | 44,000 |

g. The company issued bonds with a face value of $800,000 and a stated rate of 10% on January 1, 2012. Interest is paid semiannually, each July 1 and January 1 for the next 3 years. The market interest rate for this type of bond was 12% at the date of issuance and the bond price was 760,661.

|  |  |  |
| --- | --- | --- |
| DR Interest expense | 45,978 |  |
|  CR Discount on bond payable |  | 5,978 |
|  CR Interest payable |  | 40,000 |

Interest payable = CF = 800,000 x 0.10 / 2 = 40,000

Initial carrying value = 760,661 (the price).

Interest expense for the first coupon = 760,661 x 0.12 / 2 = 45,640.

Carry after first payment: 760,661 + (45,640 – 40,000) = 766,301 (old carry + change in discount).

Interest expense for second coupon = 766,301 x 0.12 / 2 = 45,978.

**PART 8: Bad debt**

**Requirement 1:**

1. On January 31, Latte Lab declared bankruptcy. They owed Coffee Conglomerate $1,500 on account.

|  |  |  |
| --- | --- | --- |
| DR Allowance for uncollectible accounts | 1,500 |  |
|  CR Accounts receivable |  | 1,500 |

1. Throughout the first half of the year, Coffee Conglomerate made $130,000 of sales on account and collected $126,000.

|  |  |  |
| --- | --- | --- |
| DR Accounts receivable | 130,000 |  |
|  CR Revenue |  | 130,000 |

|  |  |  |
| --- | --- | --- |
| DR Cash | 126,000 |  |
|  CR Accounts receivable |  | 126,000 |

1. On August 2, Kopi Corp went bankrupt. They were a major customer of Coffee Conglomerate, owing $7,000.

|  |  |  |
| --- | --- | --- |
| DR Allowance for uncollectible accounts | 7,000 |  |
|  CR Accounts receivable |  | 7,000 |

1. On October 17, a check from Latte Lab for $500 was received related to the amount written off on January 31.

|  |  |  |
| --- | --- | --- |
| DR Accounts receivable | 500 |  |
|  CR Allowance for uncollectible accounts |  | 500 |

|  |  |  |
| --- | --- | --- |
| DR Cash | 500 |  |
|  CR Accounts receivable |  | 500 |

1. Throughout the second half of the year, Coffee Conglomerate made $181,000 of sales on account and collected $173,000.

|  |  |  |
| --- | --- | --- |
| DR Accounts receivable | 181,000 |  |
|  CR Revenue |  | 181,000 |

|  |  |  |
| --- | --- | --- |
| DR Cash | 173,000 |  |
|  CR Accounts receivable |  | 173,000 |

T-accounts:

|  |  |  |
| --- | --- | --- |
| A/R |  | Allowance |
| **26,000** |  |  |   | **3,000** |
|   | 1,500 |  | 1,500 |  |
| 130,000 |  |  | 7,000 |  |
|   | 126,000 |  |   | 500 |
|   | 7,000 |  |   |  |
| 500 |  |  | 5,000 |   |
|   | 500 |  |  |  |
| 181,000 |  |  |  |  |
|   | 173,000 |  |  |  |
|   |  |  |  |  |
| 29,500 |   |  |  |  |

**Requirement 2:**

|  |  |  |
| --- | --- | --- |
| DR Bad debt expense | 10,900 |  |
|  CR Allowance for uncollectible accounts |  | 10,900 |

A/R at year end is 29,500. Thus, the allowance should be 29,500 x 20% = 5,900. Using a T-account, we need to balance the following:

|  |
| --- |
| Allowance |
| 5,000 |  |
|   | **?** |
|   |  |
|   | 5,900 |