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
		$ 19,200
Net increase in cash		
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		
Start	91,000	103000
Purchase	42,000	
End	30,000	

A/P			
Cash Payment	31,000	Start	27,000
		Purchase	*42,000*
		End	38,000

Prepaid expense		
Start	8,700	Expense incurred
Cash Payment		
End	9,400	

Accrued liabilities		
Cash Payment	Start	99,000
	Expense incurred	
	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			
Start	8,700	Expense incurred	0
Cash Payment	*700*		
End	9,400		

Accrued expense		
Cash Payment	Start	99,000
= 163,500	Expense incurred	82,500
	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

$Assets_{20X6}$ = 311,400; $Liabilities_{20X6}$ = 206,000; $Equity_{20X6} = Assets_{20X6} – Liabilities_{20X6}$ = 105,400
$Assets_{20X5}$ = 369,500; $Liabilities_{20X5}$ = 276,000; $Equity_{20X5} = Assets_{20X5} – Liabilities_{20X5}$ = 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%

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

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

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

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

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%

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

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

a. **Include** -- company pays for the shipping.
b. **Include** – set up cost.
c. Ignore – shipping covered by supplier.
d. Ignore – no cost incurred because the output is usable.
e. **Include** – set up cost.
f. **Include** – extending useful life
g. Ignore – no extension of useful life and not at the start of the machine's life.
h. **Include** – company pays for the shipping.
i. **Include** – set up cost.
j. 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

2. Increase Dividends, Increase Dividends payable

DR Dividends	10,000	
CR Dividends payable		10,000

3. Decrease Cash, Decrease Dividends payable

DR Dividends payable	10,000	
CR Cash		10,000

4. Decrease Cash, Increase Treasury shares

DR Treasury shares	16,000	
CR Cash		16,000

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

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

6. 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

7. 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

8. 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:

a. 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

b. 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

c. 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

d. 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

e. 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	
26,000	
	1,500
130,000	
	126,000
	7,000
500	
	500
181,000	
	173,000
29,500	

Allowance	
	3,000
1,500	
7,000	
	500
5,000	

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