FIN104 Tutorial Questions - Week 3

1. Financial Statements. Henry Josstick has just started his first accounting course and has pre- pared the following balance sheet and income statement for Omega Corp. Unfortunately, although the data for the individual items are correct, he is very confused as to whether an item should go in the balance sheet or income statement and whether it is an asset or liability. Help him by rearranging the items and filling in the blanks. (CH3.Q8)

What is the correct total for the following?

a. Current assets
b. Net fixed assets
c. Total assets
d. Current liabilities
e. Total liabilities
f. Total liabilities and shareholders' equity
g. EBIT
h. Taxable income

i. Net income

BALANCE SHEET			
Payables	$ 35	Inventories	$50
Less accumulated depreciation	120	Receivables	35
Total current assets	____	Total current liabilities	____
Long-term debt	$350	Interest expense	$25
Property, plant, and equipment	520	Total liabilities	____
Net fixed assets	____	Shareholders' equity	$90
Total assets	____	Total liabilities and shareholders' equity	____

INCOME STATEMENT	
Net sales	$700
Cost of goods sold	580
Selling, general, and administrative expenses	38
EBIT	____
Debt due for repayment	$ 25
Cash	15
Taxable income	____
Federal plus other taxes	$ 15
Depreciation	12
Net income	____

Answers:

Balance Sheet			
Assets		Liabilities & Shareholders' Equity Shareholders' Equity	
Cash	15	Debt due for repayment	25
Receivables	35	Payables	35
Inventories	50	Total current liabilities	60
Total current assets	100	Long- term debt	350
		Total liabilities	410

Property, plant, and equipment	520	Shareholders' equity	90
Less accumulated depreciation	120		
Net fixed assets	400	Total liabilities and shareholders' equity	500
Total assets	500	Total liabilities and shareholders' equity	500

Income Statement	
Net sales	700
Cost of goods sold	580
Selling, G & A expenses	38
Depreciation	12
EBIT	70
Interest expense	25
Taxable income	45
Taxes	15

2. Balance Sheet. Balance sheet items are usually entered in order of declining liquidity. Place each of the terms below in the appropriate place in the following balance sheet (CH3.Q2).

Accounts payable	Total current assets
Net fixed assets	Accounts receivable
Debt due for repayment	Total current liabilities
Cash and marketable securities	Inventories
Equity	Long-term debt

Assets	Liabilities and equities
a.	f.
b.	g.
c.	h.

d.	i.
e.	j.
Total Asset	Total liabilities and equities

Answers:

a. Cash and marketable securities
b. Accounts receivable
c. Inventories
d. Total current assets
e. Net fixed assets
f. Debt due for repayment
g. Accounts payable
h. Total current liabilities
i. Long- term debt
j. Equity

3. Financial Statements. South Sea Baubles has the following (incomplete) balance sheet and income statement (CH3.Q6).

BALANCE SHEET AT END OF YEAR (Figures in $ millions)					
Assets	2018	2019	Liabilities and Shareholder's equity	2018	2019
Current Assets	90	140	Current liabilities	50	60
Net fixed assets	800	900	Long-term debt	600	750

	INCOME STATEMENT, 2019 (Figures in $ millions)
Revenue	1,950

Cost of goods sold	1,030
Depreciation	350
Interest expense	240

a. What is shareholders' equity in 2018?
b. What is shareholders' equity in 2019?
c. What is net working capital in 2018?
d. What is net working capital in 2019?
e. What are taxes paid in 2019? Assume the firm pays taxes equal to 21% of taxable income.
f. What is cash provided by operations during 2019? Pay attention to changes in net working capital, using Table 3.4 as a guide.
g. Net fixed assets increased from $800 million to $900 million during 2019. What must have been South Sea's *gross* investment in fixed assets during 2019?
h. If South Sea reduced its outstanding accounts payable by $35 million during the year, what must have happened to its other current liabilities?

Answers:

a.

Shareholders' equity = total assets - total liabilities
2018: Shareholders' equity = $890 - $650 = $240

b.

Shareholders' equity = total assets - total liabilities
2019: Shareholders' equity = $1,040 - $810 = $230

c.

Net working capital = current assets - current liabilities

2018: Net working capital = $90 - $50 = $40

d.

Net working capital = current assets - current liabilities

2019: Net working capital = $140 - $60 = $80

e.

Taxable income = $1,950 - $1,030 - $350 - $240 = $330

Taxes paid = 0.21 * $330 = $69.30

Net income = $260.70

f.

Net income	$260.70
Depreciation	350.00
Decrease (increase) in current assets	(50.00)
Increase in current liabilities	10.00
Cash provided by operations	$570.70

g.

Gross investment = increase in net fixed assets + depreciation = $100 + $350 = $450

h.

Current liabilities increased by $10. Therefore, current liabilities other than accounts payable must have increased by $45.

4. Income versus Cash Flow. Butterfly Tractors had $14 million in sales last year. Cost of goods sold was $8 million, depreciation expenses was $2 million, interest payment on outstanding debt was $1 million, and the firm's tax rate was 21% (CH3.Q14).

a. What was the firm's net income?

b. What was the firm's cash flow?

c. What would happen to net income and cash flow if depreciation were increased by $1 million?

d. Would you expect the change in depreciation to have a positive or negative impact on the firm's stock price?

e. What would be the impact on net income if depreciation was $1 million and interest expense was $2 million?

f. What would be the impact on cash flow if depreciation was $1 million and interest expense was $2 million?

Answers:

a.

Sales (mil)	$14.00
– Cost of goods sold	8.00
– Interest expense	1.00
– Depreciation expense	2.00
Taxable income	3.00
– Taxes (21%)	0.63
Net income	$2.37 million

b.

Net Cash flow = net income + depreciation expense = $4.37 million

c.

If depreciation expense were increased by $1 million, net income would be *reduced* by $0.79 million. Cash flow (= net income + depreciation) would be *increased* by -$0.79 million + $1 million = $0.21 million

Cash flow increases because depreciation expense is not a cash outflow, but increasing the depreciation expense for tax purposes reduces taxes paid by $0.21 million.

d.

The impact on stock price is likely to be positive. Cash available to the firm would increase. The reduction in net income would be recognized as resulting entirely from accounting changes, not as a consequence of any changes in the underlying profitability of the firm.

e.

The net income would not change. The taxable income would remain the same, as would net income.

f.

If interest expense was $1 million higher and the depreciation was $1 million lower, the taxes will be the same, but the drop in depreciation would cause a decrease in cash flow by $1 million.

5. Income Statement. Sheryl's Shipping had sales last year of $10,000. The cost of goods sold was $6,500, general and administrative expenses were $1,000, interest expenses were $500, and depreciation was $1,000. The firm's tax rate is 21% (CH3.Q16).

a. What are earnings before interest and taxes?
b. What is net income?
c. What is cash flow from operations?

Answers:

Sales	$10,000
Cost of goods sold	6,500
General & administrative expenses	1,000
Depreciation expense	1,000
EBIT	1,500
Interest expense	500
Taxable income	1,000
Taxes (21%)	210
Net income	$ 790

Cash flow from operations = net income + depreciation expense = $1,790