UCLA - ENG 111, Winter 2018 *First Midterm* *Mel Bulu Taciroglu*

Name: Arpit [redacted] *ID:* [redacted]

Multiple Choice Questions (6 points each) -6 (24)

1. A publicly traded company would not be advised to buy back its own stock if:

A. Its P/E ratio is below the industry standard and company does not have any problems achieving target EPS.
B. Company does not have any lucrative investment opportunities, its cash ratio is above industry standards and the general economy is in recession.
C Company is not expected to achieve its target EPS, and falling short will trigger the cancellation of an important contract for the company.
D. Stock price is declining despite reorganization and lucrative investments have put the company on a positive trajectory
E. None of the above

2. A company has an equity Multiplier of 2.6, NWC of $2 million and total fixed assets of $14 million. What is the current ratio if the company has no long term debt?

A. 1.078
B. 0.078
C 7.8
D. None of the above
E. Cannot be calculated with given info

$1 - \frac{1}{2.6} = \frac{7}{13} = \frac{CL}{A}$ $CA - CL = 2$ $\frac{A}{E} = 2.6$ $\frac{D}{E} = 1.6$

$\frac{CL}{E} = 1.6$ $\frac{A}{E} - 1 = 1.6$ $CL = 25.6$

$CA = 27.6$

$16 + CL - E = CL$ $2 + CL = CA$ $\frac{16 + CL - E}{E} = \frac{CL}{E}$ $\frac{CA}{CL} = 1.$

$E = 16$

3. A financial analyst observes that a young company, Company Z, has a low debt to equity ratio. She concludes that this may be a good or a bad sign in terms of financial health of the company. Which of the following is likely to be a part of her evaluation of Company Z?

A. Company Z is not likely to suffer from long term solvency problems.
B. Company Z does not have to allocate most of its resources for cost of borrowing.
C. Company Z may be missing out on a potential to grow at a higher rate.
D. Only B and C
E. A, B, and C

4. Days' Sales in Inventory of Company X has been going up compared to its historic average. What may be a cause of this?

A. The demand for Company X's product is going down
B. The industry in which X operates is going through a structural change
C. Economy is slowing down and possibly going towards a recession
D. All of the above
E. None of the above

5. A firm has debt to equity ratio of 3, Net Working Capital of $2million, Current Assets of $3 million and Long Term Debt of $8 million. How much Equity does this firm have?

A. $3 million
B. $9 millionx
C. $6 million
D. $1.6 million
E. None of the above.

$\frac{D}{E} = 3$ NWC = 2 = CA - CL
CA = 3
CL = 1
LTD = 8
D = 9 mil
$\frac{9}{E} = 3$
$\frac{9}{3} = E = 3$

Numerical Questions:

6. (45 points) The accounts related to the Balance Sheet as well as Income Statement for a company are given below as of Dec 31st 2017. Company Y does not distribute any dividends and had no depreciation in 2017.

Accounts in $	2017
Sales	2,000
Common Stock	1,776
Cost of Goods Sold	1,400
Accumulated Retained Earnings	224
Interest	320
Long Term Debt	3,200
Taxes	56
Notes Payable	200
Net Fixed Assets	3,600
Accounts Payable	600
Inventory	1,200
Accounts Receivable	880
Cash	320

Anticipating the economic recovery and increased demand, company would like to grow 10% per year in the following two years.

In 2017, company was operating 10 % below capacity, that is, in 2018, sales can be increased without having to increase assets. Here is what the company is planning for 2018 and 2019:

2018:

- No dividends will be distributed, no stock sale or purchase will take place.

- All assets stay as before, accounts payable increases by 10%. COGS increases at the same rate as sales, interest, tax rate, and NWC stay the same.

2019:

- No dividends will be distributed, no stock sales or purchase.

- Assets, accounts payable, COGS increase at the same rate as sales. Interest, tax rate, and NWC stay the same.

Produce company's Income Statements and Balance Sheets for 2018 and 2019.

Next Page →

$E = 555(1+x)$

$2017 \; \frac{D}{E} = \frac{1520}{555} = 2.738738 = \frac{304}{111}$ $\quad D = 1520(1+x)$

$\frac{A}{E} = 3.738738 = \frac{415}{111} = \frac{2075(1+x)}{E}$

7. (25 points) 24

The accounts related to the Balance Sheet as well as Income Statement for a company are given below as of Dec 31st 2017.

Assume that the company does not distribute any dividends and has no depreciation and no current liabilities.

Company is not planning to purchase or sell stock, and will increase its assets and COGS at the same rate as sales in 2018.

Interest in 2018 will be equal to 2% of the total debt in 2018.

If the company would like to grow by x% in 2018 and would like to keep its D/E ratio as in 2017, produce the proforma income statement and balance sheet for 2018.

Balance Sheet			
	2017		2017
Current Assets	75	Current Liabilities	0
		Debt	1,520
Fixed Assets	2,000	Common Stock	100
Total Assets	2,075	Retained Earnings	455

Balance Sheet Pro Forma

	2018		2018
Current Assets	75(1+x)	Current liabilities	0
		Debt	1520(1+
Fixed Assets	2000(1+x)	Common Stock	100
Total Assets	2075(1+x)	Retained Earnings	455+55

Income Statement		Income Statement 2018 Pro Forma
	2017	
Sales	70	70(1+x)
COGS	~~40~~ 10	10(1+x)
Interest	~~30~~ 0	30.4(1+x)
Taxable Income	60	29.6(1+x)
Taxes (40%)	24	11.84(1+x)
Net Income	36	17.76(1+x)

Due to the constraints on this problem, namely the D/E ratio staying the same, the NI and addition to retained earnings are slightly different. If we were meant to solve for X, well then:

$17.76(1+x) = 555x$

$17.76 = 555x - 17.76x$

$17.76 = 537.24x$

$0.03306 = x = 3.306\%$