UCLA - ENG 111 Spring 202 Final - Closed Notes and books and www

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STUDENT NAME:____________________________ STUDENT ID#:_____________________

1. (10 points) Organize the 2020 Balance Sheet and Income Statement for a company given the following accounts (assume there is no depreciation):

Accounts Receivable	939,776
Accounts Payable	298,484
Revenue	8,281,989
Interest	50,000
Treasury Stock	200,000
Preferred Stock	1,200,000
Selling, General, and Administrative Costs	1,323,368
Additional Paid-in Capital	2,000,000
Long Term Debt	500,000
Retained Earnings	2,612,465
Building and Equipment	1,348,800
Common Stock	337,500
Notes Payable	1,170,127
Accrued Expenses	203,000
Land	1,575,000
Cost of Goods sold	5,383,293
Inventory	490,000
Other Current Assets	893,000
Cash	2,875,000

2. (10 points) Using the financial statements in question 1, calculate the following ratios.

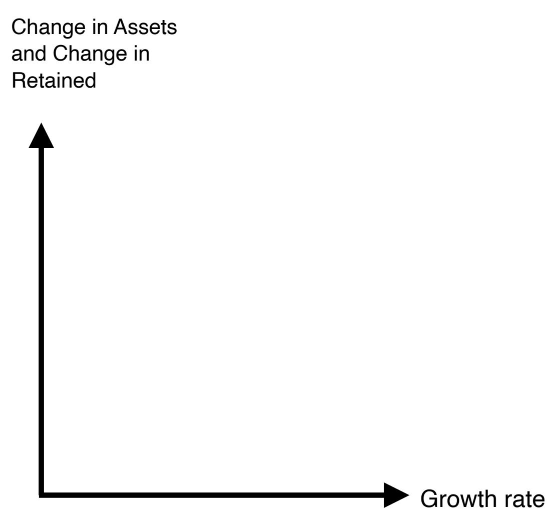
Current Ratio =
Equity Multiplier =
Du-Pont Identity =

During the board meeting, one of the board members bring up TWO negative aspects of the Equity Multiplier number for the company's finances and its future growth rate. Please indicate with a few sentences what these two issues could be.

3. (10 points) Zovid Inc. is a capital intensive pharmaceutical company (capital intensive: high asset levels compared to sales). Currently, it has zero Net Income, assets that are used to full-capacity, 0.5 retention ratio, and 0.5 debt to equity ratio. Zovid is considering its future growth opportunities, using percentage of sales approach. Assume no spontaneous liabilities.

Copy the graph below to your exam paper and then, please draw the following two lines on this graph

I. The required change in assets.
II. The change in Retained Earnings.



a) Where does I cross the x-axis and y-axis? Why?
b) Where does II cross the x-axis and y-axis? Why?
c) Mark the Internal Growth Rate on the graph.
d) Mark the Sustainable Growth Rate on the graph.

4. (10 points) FURO Inc. is adding a new product to its production line. Market research indicates that the company will sell 1,000 units each year for the coming 5 years. The variable cost per unit is \$5, the annual fixed cost is \$10,000. The tax rate is 20% and the market rate is 10%. The company needs to purchase a \$20,000 machine today, to use it for the next five years. (assume straight-line depreciation)

a) What should be the price per unit for FURO Inc to financially break-even?
b) What is a proxy for the annual financing cost?

5. (10 points) Consider the same company as in question 4. FURO Inc. decided to sell its product for \$30 per unit.

a) If the company is expecting to sell the machine in year 5 for \$3,000, what is the NPV of this new product. (Assume no synergies or erosion. Also assume no changes to be made to Net Working Capital).
b) Can you tell whether NPV is positive, negative, or zero? Explain with one sentence.

6. (10 points) Market rate is 10%. Your company is considering investing \$10,000. There are three projects available: A, B, and C.

You can invest on A individually, or on B individually, or on C individually.
You can also invest on A and B at the same time but you cannot invest on the following combinations:
A and C
B and C
A, B, and C
<u>Using the profitability index method</u>, find the best investment opportunity:

7. (10 points) Assume that the market rate is positive. If a company has a new product to introduce to the market with a Profitability Index of 1.2, then:

The company will break-even from an accounting perspective. YES / NO / CANNOT TELL.

The company will financially break-even. YES / NO / CANNOT TELL

The NPV is greater than zero. YES / NO / CANNOT TELL

8. (10 points) A bond is issued today with $1,000 face value and 2% Coupon Rate that will mature in two years. The market rate is 3%.

a) What is the current yield and the capital gains yield that you expect for the coming year.

b) Assume that one year passed, the first coupon is distributed and the market rate went down to 1%. What is the current yield and the capital gains yield that you expect in the following year?

9. (10 points) TOUR, Inc. is a young start-up with a beta of 1.3. It is estimated that the company will not be paying any dividends for the coming 5 years as it needs to use its earnings to fuel growth. The company is expected to pay dividends of $4 a share at year 6 and will increase the dividends at 10% per year thereafter.

Risk free rate is 3% and the market rate is 12%.
What is the current stock price?

10. (10 points) A portfolio that is composed of the risk free asset and stock X has an expected return of 7.5% and standard deviation of 27%. Stock X has expected return of 12% and the risk-free rate is 3%. The expected market return is 10.86% and the variance of market return is 18%. What is the <u>correlation (ρ)</u> between the returns of stock X and the market?