





Instructions:

The part of the exam is open book and open notes.

Point values are listed with the question.

3) Look over the entire exam before starting. The best strategy is generally to “cherry pick”. In other words, solve the easiest (and/or most familiar) problems first. This will save time (and energy) that can be expended on the more difficult problems.

4) Partial points are based on readily observable evidence that you know at least part of the solution concept. The more evidence presented (and the clearer the evidence), the better the chance for partial points. In other words, **SHOW ALL WORK!**

5) If you have additional time remaining, give your work one last check.

1. (15 points) Your company has \$0 in its checking account. Your company needs to borrow money for one year, such that it has a \$125,000 remaining balance at the end of one year. You are offered the following loans, all with a quoted 8% annual interest rate. Two question for each loan. 1) What amount must you borrow today in order to have \$125,000 at the end of one year? What is the effective annual interest rate for each loan?

Interest in Arrears

Initial Loan Amount = \_\_\_\_\_ Effective Interest Rate = \_\_\_\_\_

Discount Loan

Initial Loan Amount = \_\_\_\_\_ Effective Interest Rate = \_\_\_\_\_

Interest in Arrears with a 15% Compensating Balance

Initial Loan Amount = \_\_\_\_\_ Effective Interest Rate = \_\_\_\_\_

Discount Interest with a 15% compensating balance

Initial Loan Amount = \_\_\_\_\_ Effective Interest Rate = \_\_\_\_\_

2. (12 points) For the following trade credit terms, what are the effective and nominal rates.

3/10, net 30                      Nominal Rate \_\_\_\_\_                      Effective Rate \_\_\_\_\_

1/20, net 45                      Nominal Rate \_\_\_\_\_                      Effective Rate \_\_\_\_\_

2/10, net 15                      Nominal Rate \_\_\_\_\_                      Effective Rate \_\_\_\_\_

1/30, net 60                      Nominal Rate \_\_\_\_\_                      Effective Rate \_\_\_\_\_

3. (12 points) Pemini Beverage has the following historical balance sheet:

Cash	\$220	Accounts payable	\$204
Accounts receivable	60	Notes payable	130
Inventory	<u>312</u>	Accruals	<u>36</u>
Total current assets	\$ 592	Current liabilities	\$ 370
Net plant & equipment	\$ 420	Long-term bonds	\$260
		Common stock	270
		Retained earnings	<u>112</u>
Total assets	<u>\$1,012</u>	Total liab. & equity	<u>\$1,012</u>

Next year Gemini's sales are forecast to increase from 1200 to 1440. Several balance sheet items vary directly with sales as follows; Accounts Receivable= 5%, Inventory=26%, Net Plant and Equipment=35%, Accounts payable =17%, Accruals = 3%. Cash will remain at \$220. The firm has no plans to issue long-term securities. The firm's net profit margin is 10%. The firm pays out 50% of net income as dividends. Write out the new balance sheet, use the Notes Payable account as a plug account to make your balance sheet balance. It is OK if the Notes Payable is negative on your pro forma statement.

Cash	\$ _____	Accounts payable	\$ _____
Accounts receivable	\$ _____	Notes payable	\$ _____
Inventory	\$ _____	Accruals	\$ _____
Total current assets	\$ _____	Current liabilities	\$ _____
Net plant & equipment	\$ _____	Long-term bonds	\$ _____
		Common stock	\$ _____
		Retained earnings	\$ _____
Total assets	<u>\$ _____</u>	Total liab. & equity	<u>\$ _____</u>

**Peer Grading for Group Project, can affect individual group grades by up to 20 points.**

You are to grade your peers in the group project. To do this, list the members of your **group excluding your name**. Allocate a total of 100 points among the group members. Do not give less than 0 or more than 100 points to any member. If you wish to allocate points equally, write "same" in the points allocated area. For your allocation to count, you must correctly list all of your group member's names, excluding your name, and you must allocate exactly 100 points. It is your choice as to how you allocate points, but it is expected that you will give higher points to those who made the larger contributions to the projects. If everyone made similar contributions, use "same" to equally allocate points. Note, this is a zero sum game, increased points (grade) for one group member reduces the grade for other group members.

Name	Points Allocated
_____	_____
_____	_____
_____	_____
	<u>Total Points = 100</u>