

Multiple choice – 3 points each – 42 total points – Circle the correct answer

1. Cash flows in different periods should not be compared unless:
 - A. interest rates are expected to remain stable.
 - B. the cash flows occur no more than one year from each other.
 - C. high rates of interest can be earned on the cash flows.
 - D. the cash flows have been discounted to a common date.
 - E. interest rates are negative.

2. Which of the following appears to be the most appropriate goal for corporate management?
 - A. Maximizing market value of the company's shares.
 - B. Maximizing the company's market share.
 - C. Maximizing the current profits of the company.
 - D. Minimizing the company's liabilities.
 - E. Maximizing the company's assets.

3. All other factors held constant, present value _____ as the number of discounting periods per year increases, and an increase in the number of compounding periods per year _____ the future value.
 - A. increases, increases
 - B. increases, decreases
 - C. decreases, increases
 - D. decreases, decreases
 - E. remains the same, remains the same

4. From the following income statement information, calculate operating cash flow. Net sales = \$16,500; Cost of goods sold = \$10,350; Operating expenses = \$3,118; Depreciation = \$1,120; Interest expense = \$900; Tax rate = 34%.
 - A. \$667.92
 - B. \$1,327.92
 - C. \$2,201.92
 - D. \$2,687.92
 - E. \$3,347.92

5. Which of the following is an agency cost?
 - A. Cost of interest payments to bondholders.
 - B. Cost of wages for managers.
 - C. Cost of dividend payments to bondholders.
 - D. Cost of an internal audit required by bondholders.
 - E. Cost of dividend payments to stockholders.

6. Limited liability is faced by the owners of:
- sole proprietorships.
 - partnerships.
 - corporations.
 - all forms of business organization.
 - A and B only.
7. A check cashing company will give you \$101 in cash and you repay them \$120 in two weeks. What is the effective annual rate of interest for this arrangement?
- 18.81%
 - 489.11%
 - 621.25%
 - 1,432.56%
 - 8,738.05%
8. The mixture of debt and equity used by a firm to finance its operations is called:
- working capital management.
 - capital structure.
 - agency cost analysis.
 - capital budgeting.
 - financial depreciation.
9. Given the following balance sheet data, calculate net working capital: cash = \$110, accounts receivable = \$410, inventory = \$350, net fixed assets = \$1,000, accounts payable = \$60, short-term debt = \$375, and long-term debt = \$510.
- \$590
 - \$0
 - \$100
 - \$435
 - \$535
10. You have just won the lottery and have been presented with two payments options. Assuming that the interest rate is positive, which option should you choose?

<u>Year</u>	<u>Option A</u>	<u>Option B</u>
0	\$100,000	\$100,000
1	\$ 40,000	\$ 50,000
2	\$ 60,000	\$ 50,000
3	\$ 50,000	\$ 50,000
4	\$ 50,000	\$ 50,000

- Option A
- Option B
- Both options are the same.
- Insufficient information.

11. You have the following data for the Fosberg Winery. What is Fosberg's return on assets (ROA)?

Return on equity = 15%
Earnings before taxes = \$30,000
Total asset turnover = .80
Profit margin = 4.5%
Tax rate = 35%

- A. 2.2%
- B. 2.9%
- C. 3.6%
- D. 4.4%
- E. 5.2%

12. A company issues stock for the first time on the _____.

- A. primary market
- B. secondary market
- C. NYSE
- D. Nasdaq
- E. any of the above.

13. In 1980 the Dow Jones Industrial Average stood at 891. In the year 2000, the Dow Jones was 10,326. What was the annual return over this period?

- A. 12.25%
- B. 12.81%
- C. 13.03%
- D. 13.42%
- E. 13.68%

14. You will receive a payment of \$10,000 per year forever; however the first payment will not begin for 9 years. If the appropriate interest rate is 7%, what is this worth today?

- A. \$77,704.82
- B. \$83,144.16
- C. \$98,687.16
- D. \$120,135.18
- E. \$142,857.14

15. Ann is interested in purchasing Ted's factory. Since Ann is a poor negotiator, she hires Mary to negotiate a purchase price. Identify the parties to this transaction.

- A. Mary is the principal and Ann is the agent.
- B. Ted is the principal and Ann is the agent.
- C. Mary is the agent and Ted and Ann are both the principals.
- D. Ann is the principal and Mary is the agent.
- E. Ann is the principal and Ted is the agent.

Partial Credit Problems – Show all work – 44 points total

Problem 1 (12 points) Like everyone else, you want to retire wealthy. To do this, you realize the first step is to SAVE, SAVE, SAVE. When you retire, you want to make withdrawals of \$15,000 per month for 30 years to maintain your current lifestyle. To help accomplish this, you currently have \$50,000 in a bond account that will earn 8% interest rate. You will also make monthly deposits into a stock account until you retire. The stock account pays an 11% APR. After you retire, all of the money will be transferred into an account that pays a 9% APR. How much will you have to deposit in equal monthly amounts over the next 30 years into the stock account to achieve your goal?

Problem 2 (13 points) You have just turned 22 and graduated from college. You plan to retire at age 65, and have a job that offers to pay you \$30,000 a year. Your paycheck will be \$2,500 at the end of each month. If you go to graduate school, it will cost \$15,000 today and \$15,000 in one year for tuition. When you leave graduate school, you will be able to get a job with a \$42,000 a year salary. Again you will receive an end of the month salary. In this case the salary will be \$3,500. In other words, if you take this route your first salary check will be in two years and one month. If the appropriate interest rate is 4.5%, which alternative has the higher present value? By how much?

Problem 3 (10 points) Show the first four months of a loan amortization table for a mortgage of \$150,000 over 20 years with equal monthly payments and a 9.2% APR.

Problem 4 (12 points) Construct the cash flow identity for the following company. Explain what the numbers mean.

	2006	2007		2006	2007
Current assets			Current liabilities		
Cash	\$1,180	\$2,122	Accounts payable	\$1,811	\$1,925
Accounts rec.	2,812	4,116	Notes payable	1,143	907
Inventory	<u>6,218</u>	<u>6,462</u>	Other	<u>60</u>	<u>218</u>
Total	\$10,210	\$12,700	Total	\$3,014	\$3,050
			Long-term debt	9,815	10,518
Fixed assets	<u>23,372</u>	<u>23,816</u>	Owners' equity	<u>\$20,753</u>	<u>\$22,948</u>
Total assets	<u>\$33,582</u>	<u>\$36,516</u>	Total L&E	<u>\$33,582</u>	<u>\$36,516</u>

2007 Income Statement

Sales	\$26,800
Cost of goods sold	8,400
Depreciation	<u>1,400</u>
EBIT	\$17,000
Interest paid	<u>1,250</u>
Taxable income	\$15,750
Taxes	<u>5,355</u>
Net income	\$10,395
Dividends	\$8,200
Retained earnings	2,195

Problem 5 (8 points) You have just won an elephant in a lottery. You do not like elephants however you will be paid \$1,400 a year for the first 15 years and \$3,200 a year for the next 15 years, plus expenses. Assume all payments are at the end of the year. Your sister has just offered you \$20,000 to take over the care of the elephant. If the appropriate interest rate is 10%, which option should you take?

ANSWER KEY**EXAM #1****FIN 3210****Spring 2008**

1. D
2. A
3. C
4. D
5. D
6. C
7. E
8. B
9. D
10. B
11. C
12. A
13. C
14. B
15. D

Problem #1

When you retire you need:

Enter	30 × 12	9%/12	\$15,000		
	N	I/Y	PV	PMT	FV
Solve for			\$1,864,227.99		

You will have:

Enter	30 × 12	8%/12	\$50,000		
	N	I/Y	PV	PMT	FV
Solve for					\$546,786.48

You are short $\$1,864,227.99 - 546,786.48 = \$1,317,441.51$

Enter	30 × 12	11%/12		\$1,317,441.51	
	N	I/Y	PV	PMT	FV
Solve for				\$469.76	

Problem #4

Cash flow identity: CF from Assets = CF to creditors + CF to stockholders

CF from assets = OCF – net capital spending – Δ NWC

OCF = EBIT + depreciation – taxes = $\$17,000 + 1,400 - 5,355 = \$13,045$

Net capital spending

Ending fixed assets	\$ 23,816
– Beg fixed assets	23,372
+ depreciation	<u>1,400</u>
	\$ 1,844

Δ NWC

Ending NWC	$\$12,700 - 3,050 = \$9,650$
– Beg. NWC	$\$10,210 - 3,014 = \underline{\$7,196}$
	\$2,454

CF from assets = $\$13,045 - 1,844 - 2,454 = \$8,747$

CF to creditors

Interest paid	\$ 1,250
– Net new borrowing	<u>703</u>
	\$ 547

CF to stockholders

Dividends	\$ 8,200
– Net new equity	<u>0</u>
	8,200

Cash flow identity: CF from Assets = CF to creditors + CF to stockholders

$$\$8,747 = \$547 + 8,200$$

The company created a cash flow of \$13,045 from operations. They spent \$1,844 on fixed assets and \$2,454 on current accounts. They company paid \$547 to creditors in the form of interest payments and paid stockholders \$8,200 in dividends.

Problem #5

Cfo = 0

C01 = 1,400

F01 = 15

C02 = 3,200

F02 = 15

NPV

I = 10

CPT

\$16,475.18

Take your sister's offer