

Multiple choice – 3 points each – 57 total points – Circle the correct answer

1. In 1980 the Dow Jones Industrial Average stood at 891. In the year 2017, the Dow Jones was 22,387. What was the annual return over this period?
 - A. 13.25%
 - B. 10.81%
 - C. 9.10%
 - D. 11.42%
 - E. 12.68%

2. 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

3. 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.

4. 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?
 - A. 18.81%
 - B. 489.11%
 - C. 621.25%
 - D. 1,432.56%
 - E. 8,738.05%

5. 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.

6. 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.
7. Limited liability is faced by the owners of:
- A. sole proprietorships.
 - B. partnerships.
 - C. corporations.
 - D. all forms of business organization.
 - E. A and B only.
8. 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.
9. 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

- A. Option A
 - B. Option B
 - C. Both options are the same.
 - D. Insufficient information.
10. 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

11. 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
12. The mixture of debt and equity used by a firm to finance its operations is called:
- A. working capital management.
 - B. capital structure.
 - C. agency cost analysis.
 - D. capital budgeting.
 - E. financial depreciation.
13. 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.
- A. -\$590
 - B. \$0
 - C. \$100
 - D. \$435
 - E. \$535
14. Which of the following statements about the current ratio is FALSE?
- A. This ratio is a meaningful measure of liquidity because the book value of the assets and liabilities used in the calculation tend to deviate only slightly from market values.
 - B. This ratio is calculated by dividing current assets by current liabilities.
 - C. It will always be greater than the quick ratio in companies that carry inventory.
 - D. This ratio is intended to indicate the short run liquidity position of the firm.
 - E. The higher the current ratio, the higher the level of cash must be for the firm.
15. 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.

16. Which of the following can be calculated with the use of only a balance sheet?
- A. Profit margin.
 - B. Equity multiplier.
 - C. Receivables turnover.
 - D. Times interest earned.
 - E. Return on equity.
17. Your bank has a savings account that offers a 10% APR compounded daily. What is the effective annual rate for this account?
- A. 10.47%
 - B. 10.52%
 - C. 10.61%
 - D. 10.70%
 - E. 10.78%
18. All else equal, which of the following will increase the present value of an annuity?
- A. Increasing the interest rate.
 - B. Decreasing the interest rate.
 - C. Decreasing the number of payments
 - D. Decreasing the amount of the payments
 - E. None of the above.

Partial Credit Problems – Show all work – 46 points total

Problems 1, 2, and 3 REQUIRE A TIME LINE

Problem 1 (9 points) You have just won an elephant in a lottery. You do not like elephants however you will be paid \$1,300 a year for the first 15 years and \$3,500 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 \$25,000 to take over the care of the elephant. If the appropriate interest rate is 7.75 percent, which option should you take?

Problem 2 (14 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 \$32,000 a year. Your paycheck will be \$2,666.67 at the end of each month. If you go to graduate school, it will cost \$21,000 today and \$21,000 in one year for tuition. When you leave graduate school, you will be able to get a job with a \$43,000 a year salary. Again you will receive an end of the month salary. In this case the salary will be \$3,583.33. 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 percent, which alternative has the higher present value? By how much?

Problem 3 (13 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 \$25,000 in a bond account that will earn 7 percent interest rate. You will also make monthly deposits into a stock account until you retire. The stock account will return 10 percent per year. After you retire, all of the money will be transferred into an account that has a 6 percent return. 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 4 (10 points) You just graduated and unfortunately have to start repaying your student loans. You have borrowed \$50,000. Show the first 12 months of a loan amortization table assuming you make equal monthly payments over 20 years and have an annual interest rate of 5.2 percent.