

**HADM 6306 – FALL 2013  
MIDTERM EXAM**

**Multiple Choice (4 points Each) – Choose the best answer for each of the following:**

1. Compounding refers to:
  - a. Earning interest only on the original principle invested,
  - b. Earning interest only on interest earned.
  - c. Earning interest on the principle invested and prior interest earned,
  - d. Putting all of one's money in the same place (a compound),
2. Which of the following are determinants of a given cash flow's discount rate?
  - a. How far into the future the cash flow occurs,
  - b. Riskiness of the cash flow,
  - c. Opportunity costs,
  - d. Only a and b.
3. A perpetuity:
  - a. Involves infinite future cash flows, and thus has an infinite value,
  - b. Is an annuity that never ends.
  - c. Has no value if the interest rate is zero,
  - d. Is an annuity with uneven cash flows,
4. As interest rates rise, which of the following is (are) true?
  - a. The Future Value of future cash flows increases,
  - b. The Future Value of current cash held decreases,
  - c. The Present value of future cash flows increases,
  - d. The Present Value of current cash held stays the same,
  - e. None of the above.
5. The following are properties of an ordinary annuity, except;
  - a. Have lower present values than the sum of the future cash flows,
  - b. A series of future cash flows,
  - c. Cash flows at the beginning of each period,
  - d. Equal cash flows.
6. When comparing annual compounding to semiannual compounding;
  - a. Semiannual compounding will lead to higher effective annual rates,
  - b. Annual compounding will lead to lower present values,
  - c. None of the above,
  - d. Both a and b.
7. Why are current cash flows more valuable than future cash flows?
  - a. Inflation,
  - b. Future cash flows are riskier,
  - c. Current cash flows can earn interest,
  - d. all of the above.

8. The Survey of Consumer Finances one question to assess one's level of risk aversion is popular for several reasons except:
- It is widely used,
  - It is most accurate,
  - It is simple and short,
  - There are few other nationwide measures used,
  - All of the above are advantages.
9. Diversification reduces risk the most when assets are
- Not correlated at all,
  - Perfectly positively correlated,
  - Perfectly negatively correlated,
  - Correlation doesn't matter, just each assets variance.
10. The wide spread purchase of lottery tickets (a risky asset with a negative expected return) implies what about risk tolerance?
- Most people are not risk averse, but risk lovers,
  - The lottery actually has a positive expected return,
  - The magnitude of the payoff outweighs the small investment required,
  - All of the above.
11. Most of the benefits to diversifying can be achieved by having a portfolio of at least how many stocks?
- 1000,
  - 50,
  - 10,
  - 5.
12. Implications of portfolio theory include all of the following except
- The standard deviation is not the appropriate measure of a portfolio's risk,
  - The standard deviation is not the appropriate measure of an individual asset's risk,
  - Holding a single risky asset is not rational,
  - Much of an asset's risk can be avoided.
13. In financial analysis, increased risk is most often and most easily incorporated by
- Adjusting the cash flows lower,
  - Adjusting the cash flows higher,
  - Adjusting the interest rate lower,
  - Adjusting the interest rate higher,
  - None of the above.

14. Stand alone risk is
- The amount of diversifiable risk,
  - the total risk of an individual asset,
  - The amount of risk an asset adds to a portfolio,
  - The change in total portfolio risk an asset makes.
15. Which of the following is a disadvantage of the Capital Asset Pricing Model (CAPM)?
- It focuses only on the risk an asset adds to a portfolio,
  - It ignores diversifiable risk,
  - It is based on expectations,
  - It is simple and logical.
16. Which of the following is not a disadvantage of debt financing?
- It requires mandatory interest payments,
  - The principle must be repaid,
  - Interest is tax deductible,
  - Bankruptcy costs.
17. The cost of capital may be considered all of the following except
- A tool in determining the optimal capital structure,
  - The opportunity cost of funds the business acquires,
  - A minimum return for any new investment of any risk level,
  - The hurdle rate for investments with similar risk as the business.
18. Which of the following is not a determinant of an optimal capital structure?
- Business risk,
  - Financial risk,
  - Asset structure,
  - Reserve borrowing capacity.
19. Which of the following is/are differences in the cost of capital between profit and not-for-profit businesses;
- Though they may have the same assets, the asset risk will be different,
  - The cost of Equity capital is much higher for not-for-profit businesses,
  - Debt financing is relatively more expensive for not-for-profits,
  - All of the above are differences.
20. If it were not for the unique mission of not-for-profit businesses, which of the following would be the best estimate of the cost of Fund capital?
- Zero – donators do not receive a return,
  - The expected growth rate of the businesses assets,
  - The cost of equity for similar for-profit businesses,
  - A cost that maintains the business's credit worthiness.

21. "Capital budgeting" involves

- a. purchases of long-term fixed assets
- b. acquisition of capital
- c. political lobbying
- d. buying supplies
- e. all of the above.

22. A hospital which adds a new ER center on the far side of town would be an example of which type of capital budgeting project?

- a. Expansion into new markets
- b. Expansion into new services
- c. Expansion of existing markets
- d. Expansion of existing services

23. Which cash flows are not included in capital budgeting analysis?

- |                                |                                  |
|--------------------------------|----------------------------------|
| a. Noncash accounting expenses | e. Installation costs            |
| b. Incremental cash flows      | f. Opportunity costs             |
| c. Salvage value               | g. Changes in working capital    |
| d. Sunk costs                  | h. All of the above are included |

24. Which capital budgeting tool does not use the time value of money?

- a. IRR
- b. NPV
- c. MIRR
- d. TNPV
- e. Payback
- f. None of the above.

25. A capital budgeting Post Audit will

- a. Provide historical risk data,
- b. improve operations,
- c. improve forecasts,
- d. reduce losses,
- e. All of the above.



- ✓ 2. Consider the three stocks below:

| <u>Company</u> | <u>Beta</u> |
|----------------|-------------|
| PetVet         | - 1.1       |
| HeadMed        | + 0.5       |
| PreScrip       | + 2.0       |

Currently, the risk-free rate is 3%, and the return on the market is 8%.

- A. (15 Points) Using the CAPM, what is the required rate of return on each of the three stocks?

- B. (5 Points) Which stock is the best investment, and why?

- ✓ 3. (6 Points) Mercy Me's hospital (a tax exempt not-for-profit) has a target capital structure of 20% debt and 80% equity. At this capital structure, its cost of equity is 6% and its cost of Debt is 8%. What is its overall cost of capital?

4. Bill M. Hier's Insurance provides the following data ("EBIT" is Earnings Before Interest and Taxes):

|          |           |
|----------|-----------|
| EBIT     | \$140,000 |
| Tax rate | 25%       |
| Assets   | \$875,000 |

- A. (6 Points) It's assets are currently 100% equity financed (no debt). What is Smash&Crash's current ROE?
- B. (6 Points) If they replace 30% of their Equity with 25% debt financing, at an interest rate of 8%, what is their ROE?
- C. (6 Points) What advice would you give Bill M. Hier regarding the addition of debt to his capital structure?

- ✓ 5. Tooth Tortures is considering building a new office after the first was destroyed by a storm. They estimate the initial cost of land, construction of the new office, and equipment to total \$1,600,000. Their cost of capital is 10%. Dr. U. N. Payne, the dentist, plans to retire after six years and has forecasted the following after tax cash flows for the operations until then:

| <u>YEAR</u> | <u>CASH FLOW(CF)</u> |
|-------------|----------------------|
| 0           | \$ - 1,600,000       |
| 1           | \$ 200,000           |
| 2           | 300,000              |
| 3           | 400,000              |
| 4           | 400,000              |
| 5           | 400,000              |
| 6           | 500,000              |

A. (6 Points) What is the payback period?

B. (10 Points) What is the NPV?

C. (5 Points) Dr. Payne states that since, according to the payback period he should get all his investment back, and then make money the last two years, that he should proceed with the new office. What would you tell him?