

**DIFFICULT**

1. A bond analyst reviewing a revenue bond is *most* interested in the:
  - a. local municipality's tax base
  - b. project's expected cash flows
  - c. housing prices in the municipality
  - d. local municipality's Internal Revenue Allocation (IRA)
  
2. Which of the following statements regarding (TIPS) is not true?
  - a. TIPS are designed to provide a real return to an investor
  - b. The principal value is adjusted semi-annually, based on changes in the Consumer Price Index
  - c. Coupon rates are adjusted semi-annually, based on changes in the Consumer Price Index
  - d. TIPS stands for Treasury Inflation Protected Securities
  
3. Statement 1: When the Herfindahl-Hirschmann Index (HHI) is 422, this generally indicates the absence of competition.

Statement 2: A working definition for identifying the start of a recession occurs when the inflation rate reaches double-digits for at least two consecutive quarters.

Statement 3: A tax levied on goods imported into a country is a voluntary export restraint.

	Statement 1	Statement 2	Statement 3
a.	True	True	True
b.	True	False	False
c.	True	False	True
d.	False	False	False
e.	False	False	True

4. Thanos has designed an investment strategy that has an expected return of 14% and a standard deviation of 4%. Thanos gets a bonus if his strategy exceeds 22%. If investment returns are normally distributed, the probability of Thanos earning a bonus is closest to:
  - a. 2.5%
  - b. 5.0%
  - c. 7.5%
  - d. 10.0%
  
5. A client wishes to create a charitable trust that provides ten annual payments of \$50,000 each, beginning today. In order to meet these disbursements, the amount of money that the client must set aside today at 8% interest compounded annually is closest to:
  - a. \$ 293,420
  - b. \$ 335,504
  - c. \$ 362,344
  - d. \$ 385,504

6. An investor examines the four portfolios shown in the accompanying table.

	Portfolio A	Portfolio B	Portfolio C	Portfolio D
$E(R_p)$	8%	12%	15%	18%
$\sigma_p$	5%	8%	12%	16%

Using Roy's safety-first criterion and a minimum acceptable level of return of 4%, the optimal portfolio is:

- a. A
  - b. B
  - c. C
  - d. D
  - e. Either C or D
7. An investor owns a 100 unit apartment complex in medium-sized city in a province near Metro Manila. The city, whose population is far younger than the national average, has recently enacted a tough "low growth" ordinance in order to limit new construction. This is seen as a response to recent rapid growth, partly fueled by migration from nearby more expensive cities. Prospects for this investment are:
- a. favorable because of demographics and real estate supply
  - b. favorable because of psychographics and real estate supply
  - c. unfavorable because of real estate demand
  - d. unfavorable because of location
  - e. unfavorable because of real estate supply
8. A Shi'ar Corp. bond has an effective duration of 5 and convexity of negative 30. The percentage price change due to a 150 basis point decline in rates is closest to:
- a. - 5.5%
  - b. - 6.8%
  - c. + 5.5%
  - d. + 6.8%
9. An analyst believes that NEW will pay a P1.00 dividend a year from now, and will be priced at P23.00 per share immediately following the dividend. The riskless rate is 4%, and the analyst forecasts an expected market return of 12%. NEW has a beta of 0.75 and a current price of P22.00. Based on this information:
- a. NEW is overvalued
  - b. NEW is undervalued
  - c. NEW is fairly priced
  - d. NEW should have a BUY recommendation

10. Which of the following statement/s is/are most likely true?

Statement 1: An interest rate put is an option in which the holder has the right to make a known interest payment and receive an unknown interest payment.

Statement 2: Interest rate options are options in which the underlying is an interest rate where one party has the right to make one interest payment and receive another.

Statement 3: Interest rate caps are a series of call options with each option expiring at a different time. Interest rate floors are a series of put options with each option expiring at a different time.

- a. All Statements are true
- b. All Statements are false
- c. Only I and II are true
- d. Only II and III are true

11. Jessica Drew, an investor, purchases on margin 1,000 shares of HFH, for \$ 40.00 per share. Her broker told her that there would be no commission, but that the margin requirement for the HFH purchase is 50%, the maintenance margin is 25%, and the call money rate is 5.0%. One year later, HFH shares are trading at P 30.00 per share. Which of the following is most accurate?

	<b>Initial Margin Amount</b>	<b>Total Return On Investment (%)</b>	<b>Received Margin Call?</b>
a.	\$ 20,000	-55%	Yes
b.	\$ 20,000	-25%	Yes
c.	\$ 40,000	-40%	Yes
d.	\$ 40,000	-15%	No
e.	\$ 20,000	-55%	No

12. An investor works for a venture capital firm and is considering investing \$4.5 million in a specific project. Based on his calculations, he expects the project to pay \$10.3 million after 6 years. Realizing that the project may not survive until then, he estimates a 45% probability of survival through the sixth year. The net present value of the project is \$2.8 million. Should he recommend investing in the project?

- a. No, because the project has a greater probability of failure than success.
- b. No, because the NPV of \$2.8 million is less than the \$4.5 million invested.
- c. Yes, because the \$10.3 million received is greater than the \$4.5 million invested.
- d. Yes, because the NPV is positive.

13. A well-constructed Investment Policy Statement is intended to prevent all of the following except:

- a. The portfolio manager invests more than 50% of a 65 year-old's savings in option derivatives.
- b. The investor sues because his portfolio of bonds is not performing as well as the S&P 500.
- c. An investor loses 20% of the value of his portfolio in one year
- d. A new portfolio manager takes over and liquidates the risky portfolio until he has an opportunity to meet with the investor.

14. Which of the following statement/s is/are true?

Statement 1: Exchange-traded funds always trade at NAV

Statement 2: The futures clearinghouse is responsible for marking to market the contract.

Statement 3: Margin in the futures markets is similar to a loan to the clearinghouse.

Statement 4: The most common way to close a futures contract prior to expiration is to take the offsetting position.

- a. II only
- b. II and III only
- c. II and IV only
- d. All of the above statements are true.

15. An investor is evaluating investing in an office building using the income approach. The purchase price of the building is US\$ 360,000 and 50% of the price would be financed.

Gross potential rental income	\$ 75,000
Estimated vacancy and collection costs	4%
Depreciation	\$ 8,000
Taxes	\$ 3,000
Insurance	\$ 4,000
Repairs	\$ 10,000
Interest rate on financing	10%
Market Capitalization Rate	15%

*\* All information data is on an annual basis*

The market value is closest to:

- a. \$ 246,667
- b. \$ 470,000
- c. \$ 366,667
- d. \$ 550,000

16. Raven Darkholme, CFA holds XME stocks in her portfolio. She works for MUT Financials, which likewise owns XME stocks for their proprietary trading portfolio. Raven has a client Irene Adler, who also owns XME stocks. Who has the least priority in terms of undertaking investment transactions on XME stock, assuming that all transaction orders were given at the same time?
- Raven Darkholme, CFA
  - MUT Financials
  - Irene Adler
  - All should have equal priorities in the execution of investment transactions
17. An analyst gathered the following information for three companies operating in the same industry during the same year:

Company	Ave. Inventory	Sales	Days Inventory
A	\$ 3	\$ 20	60
B	4	25	60
C	4	19	90

Which company most likely achieved the highest gross profit margin for the year?

- Company A
- Company B
- Company C
- Both companies A and B

Company	Inv. Turnover (365 / Days Inventory)	COGS Inv. Turnover * Ave. Inventory	Gross Profit Sales - COGS	Gross Profit Margin Gross Profit / Sales
A	6.08	18.24	1.76	8.80%
B	6.08	24.32	0.68	2.72%
<b>C</b>	<b>4.06</b>	<b>16.24</b>	<b>2.76</b>	<b>14.53%</b>

18. Acorn Construction Company is financing construction of a building with \$10,000,000 of debt, \$8,000,000 of which is a construction loan directly on the building. The remainder is financed out of the general debt of the company. When construction is completed the facility will be used by the company. The debt structure of the firm is:

Construction Loan @10%	\$ 8,000,000
Long-Term Debt @ 8%	\$12,000,000
Long-Term Debt @11%	\$ 2,000,000

The capitalized interest expense to be recorded as an asset on the balance sheet is closest to:

- \$968,000
- \$800,000
- \$1,020,000
- \$990,000