Section I: Multiple-Choice Questions **(40 marks total)**

Select the choice that best answers the question or completes the statement. Record your response on the answer sheet provided. **(1 mark each)**

1. If a market proxy portfolio consistently beats all professionally managed portfolios on a risk-adjusted basis, it may be concluded that

   a. the CAPM is valid.
   b. the market proxy is mean/variance efficient.
   c. the CAPM is invalid.
   d. both (a) and (b)
   e. both (b) and (c)

2. Which of the following statements are **true** about CMHC MBS pass-throughs?

   I. They separate individual home mortgages into heterogeneous pools.
   II. The purchaser of a CMHC MBS receives monthly interest and principal payments received from payments made on the pool.
   III. The banks that originated the mortgages continue to service them.
   IV. The banks that originated the mortgages maintain ownership of them.

   a. II, III, and IV only
   b. II and III only
   c. I, II, and IV only
   d. I, III, and IV only
   e. I, II, III, and IV

3. A coupon bond that pays interest semi-annually has a par value of $1,000, matures in five years, and has a yield to maturity of 10%. The intrinsic value of the bond today will be __________ if the coupon rate is 8%.

   a. $922.78
   b. $924.16
   c. $1,075.80
   d. $1,077.20
   e. none of the above

4. In the event of the firm's bankruptcy,

   a. the most shareholders can lose is their original investment in the firm's stock.
   b. common shareholders are the first in line to receive their claims on the firm's assets.
   c. bondholders have claim to what is left from the liquidation of the firm's assets after paying the shareholders.
   d. the claims of preferred shareholders are honoured before those of the common shareholders.
   e. both (a) and (d)

5. Two basic assumptions of technical analysis are that security prices adjust

   a. rapidly to new information, and market prices are determined by the interaction of supply and demand.
   b. rapidly to new information, and liquidity is provided by security dealers.
   c. gradually to new information, and market prices are determined by the interaction of supply and demand.
   d. gradually to new information, and liquidity is provided by security dealers.
   e. rapidly to information and to the actions of insiders.

6. Assume you sell short 100 shares of common stock at $45 per share, with initial margin at 50%. The stock paid no dividends during the period, and you did not remove any money from the account before making the offsetting transaction. What would be your rate of return if you repurchase the stock at $40 per share?

   a. 20%
   b. 25%
   c. 22%
   d. 77%
   e. none of the above

7. Portfolio A has expected return of 10% and standard deviation of 19%. Portfolio B has expected return of 12% and standard deviation of 17%. Rational investors will

   a. borrow at the risk-free rate and buy A.
   b. sell A short and buy B.
   c. sell B short and buy A.
   d. borrow at the risk-free rate and buy B.
   e. lend at the risk-free rate and buy B.

8. If both the interest rate paid by borrowers and the interest rate received by savers accurately reflect the realized rate of inflation,

a. borrowers gain and savers lose.
b. savers gain and borrowers lose.
c. both borrowers and savers lose.
d. neither borrowers nor savers gain or lose.
e. both borrowers and savers gain.

9. According to the Capital Asset Pricing Model (CAPM),

a. a security with a positive alpha is considered overpriced.
b. a security with a zero alpha is considered to be a good buy.
c. a security with a negative alpha is considered to be a good buy.
d. a security with a positive alpha is considered to be underpriced.
e. none of the above

10. The prudent man law requires

a. executives of companies to avoid investing in options of companies that employ them.
b. executives of companies to disclose their transactions in stocks of companies that employ them.
c. professional investors who manage money for others to avoid all risky investments.
d. professional investors who manage money for others to constrain their investments to those that would have been approved by the prudent investor.
e. none of the above

11. Consider a T-bill with a rate of return of 5% and the following risky securities:

Security A: E(r) = 0.15; Variance = 0.04
Security B: E(r) = 0.10; Variance = 0.0225
Security C: E(r) = 0.12; Variance = 0.01
Security D: E(r) = 0.13; Variance = 0.0625

From which set of portfolios, formed with the T-bill and any one of the four risky securities, would a risk-averse investor always choose his portfolio?

a. the set of portfolios formed with the T-bill and security A
b. the set of portfolios formed with the T-bill and security B
c. the set of portfolios formed with the T-bill and security C
d. the set of portfolios formed with the T-bill and security D
e. The answer cannot be determined.

12. You are a Canadian investor who purchased British securities for £2,000 one year ago when the British pound cost $1.50. No dividends were paid on the British securities in the past year. Your total return based on Canadian dollars was ____ if the value of the securities is now £2,400 and the pound is worth $1.60.

a. 16.7%
b. 20.0%
c. 28.0%
d. 40.0%
e. none of the above

13. When an investor adds international stocks to her portfolio,

a. it will raise her risk relative to the risk she would face just holding Canadian stocks.
b. she can reduce its risk relative to the risk she would face just holding Canadian stocks.
c. she will increase her expected return but must also take on more risk.
d. it will have no significant impact on either the risk or the return of her portfolio.
e. she needs to seek professional management because she doesn't have access to international stocks on her own.

14. Professional investment analysts suggest that investors should look for certain characteristics when choosing a mutual fund. These include

a. market timing.
b. consistency of style.
c. consistency of performance.
d. all of the above
e. only (b) and (c)

15. The risk premium for common stocks

a. cannot be zero, for investors would be unwilling to invest in common stocks.
b. must always be positive, in theory.
c. is negative, as common stocks are risky.
d. both (a) and (b)
e. both (a) and (c)

16. The risk that can be diversified away in a portfolio is referred to as

I. diversifiable risk.
II. unique risk.
III. systematic risk.
IV. firm-specific risk.

a. I, III, and IV only
b. I, II, and IV only
c. III and IV only
d. II, III, and IV only
e. I, II, III, and IV

17. What is the expected return of a zero-beta security?

a. the market rate of return
b. zero rate of return
c. a negative rate of return
d. the risk-free rate
e. none of the above

18. According to the expectations hypothesis, a normal yield curve implies that interest rates are expected to

a. remain stable in the future.
b. decline in the future.
c. increase in the future.
d. decline first, then increase.
e. increase first, then decrease.

19. If forward rates are known with certainty, and all bonds are fairly priced,

a. all bonds would have the same yield to maturity.
b. all short-maturity bonds would have lower prices than all long-maturity bonds.
c. all bonds would have the same price.
d. all bonds would provide equal one-year rates of return.
e. none of the above

20. With regard to futures contracts, margin is

a. the amount of money borrowed from the broker when you buy the contract.
b. the maximum percentage that the price of the contract can change before it is marked to market.
c. the maximum percentage that the price of the underlying asset can change before it is marked to market.
d. a good-faith deposit made at the time of the contract's purchase or sale.
e. the amount by which the contract is marked to market.

21. One reason swaps are desirable is that they

a. are free of credit risk.
b. have no transactions costs.
c. increase interest rate volatility.
d. increase interest rate risk.
e. offer participants easy ways to restructure their balance sheets.

22. In the dividend discount model, which of the following is **not** incorporated into the discount rate?

a. real risk-free rate
b. risk premium for stocks
c. return on assets
d. expected inflation rate
e. none of the above

23. Sunshine Corporation is expected to pay a dividend of $1.50 in the upcoming year. Dividends are expected to grow at the rate of 6% per year. The risk-free rate of return is 6% and the expected return on the market portfolio is 14%. The stock of Sunshine Corporation has a beta of 0.75. The intrinsic value of the stock is

a. $10.71.
b. $15.00.
c. $17.75.
d. $25.00.
e. none of the above

24. There appears to be a role for a theory of active portfolio management because

a. some portfolio managers have produced sequences of abnormal returns that are difficult to label as lucky outcomes.
b. the "noise" in the realized returns is enough to prevent the rejection of the hypothesis that some money managers have outperformed a passive strategy by a statistically small, yet economic, margin.
c. some anomalies in realized returns have been persistent enough to suggest that portfolio managers who identified these anomalies in a timely fashion could have outperformed a passive strategy over prolonged periods.
d. all of the above
e. both (a) and (b)

25. Trading activity by mutual funds just prior to quarterly reporting dates is known as

a. insider trading.
b. program trading.
c. passive security selection.
d. window dressing.
e. none of the above

26. If a bond portfolio manager believes

a. in market efficiency, he or she is likely to be a passive portfolio manager.
b. that he or she can accurately predict interest rate changes, he or she is likely to be an active portfolio manager.
c. that he or she can identify bond market anomalies, he or she is likely to be a passive portfolio manager.
d. all of the above
e. both (a) and (b)

27. Immunization through duration matching of assets and liabilities may be ineffective or inappropriate because

a. conventional duration strategies assume a flat yield curve.
b. duration matching can only immunize portfolios from parallel shifts in the yield curve.
c. immunization only protects the nominal value of terminal liabilities and does not allow for inflation adjustment.
d. all of the above
e. both (a) and (c)

28. During periods of inflation, the use of FIFO (rather than LIFO) as the method of accounting for inventories causes

a. higher inventory turnover.
b. higher income taxes.
c. lower ending inventory.
d. higher reported sales.
e. none of the above

29. TRS Company has a ratio of total debt/total assets that is above the industry average and a ratio of long-term debt/equity that is below the industry average. These ratios suggest that the firm

a. utilizes assets effectively.
b. has too much equity in the capital structure.
c. has relatively high current liabilities.
d. has a relatively low dividend payout ratio.
e. none of the above

30. The potential loss for a writer of a naked call option on a stock is

a. limited.
b. unlimited.
c. larger the lower the stock price.
d. equal to the call premium.
e. none of the above

31. The intrinsic value of an in-the-money put option is equal to

a. the stock price minus the exercise price.
b. the put premium.
c. zero.
d. the exercise price minus the stock price.
e. none of the above

32. After taking a position based on an identified trend, technical traders generally

a. continue with it until a reversal of the trend is indicated.
b. continue with it until price stabilizes.
c. continue until trading volume begins to decline.
d. none of the above

33. If mutual fund portfolios are heavy in cash, technical traders interpret this as a __________ signal.

a. buy
b. sell
c. hold
d. none of the above

34. The dollar change in the value of a stock call option is always

a. lower than the dollar change in the value of the stock.
b. higher than the dollar change in the value of the stock.
c. negatively correlated with the change in the value of the stock.
d. both (b) and (c)
e. both (a) and (c)

35. The elasticity of a stock put option is always

a. positive.
b. smaller than one.
c. negative.
d. infinite.
e. none of the above

36. A purely passive strategy

a. uses only index funds.
b. uses weights that change in response to market conditions.
c. uses only risk-free assets.
d. is best if there is "noise" in realized returns.
e. is useless if abnormal returns are available.

37. Hedging is a technique used by investors to

a. reduce the risk and simultaneously increase the rate of return of a portfolio of assets.
b. reduce the risk without affecting the rate of return of portfolio assets.
c. reduce the risk by stabilizing the value of the portfolio of assets.
d. all of the above
e. none of the above

38. Which of the following is **not** a characteristic of a money market instrument?

a. liquidity
b. marketability
c. long maturity
d. liquidity premium
e. both (c) and (d)

39. Proponents of the EMH think technical analysts

a. should focus on relative strength.
b. should focus on resistance levels.
c. should focus on support levels.
d. should focus on financial statements.
e. are wasting their time.

40. Consider two bonds, A and B. Both bonds are presently selling at their par value of \$1,000. Each pays interest of \$120 annually. Bond A will mature in five years while bond B will mature in six years. If the yields to maturity on the two bonds change from 12% to 10%, both bonds will

a. increase in value, but bond A will increase more than bond B.
b. increase in value, but bond B will increase more than bond A.
c. decrease in value, but bond A will decrease more than bond B.
d. decrease in value, but bond B will decrease more than bond A.
e. none of the above

Section II: Short-Answer Questions **(60 marks total)**

Respond to these questions in the space provided at the end of this examination. **(10 marks each)**

41. In Canada, institutional investors—such as pension plans and endowments—have a higher interest in zero coupon bonds compared to individual investors. Using taxation of zero coupon bonds as a reference, explain why zeros are not attractive to individual investors.

42. Define *active portfolio management* and *passive portfolio management,* and contrast the two.

43. Define *primary stock market transaction* and *secondary stock market transaction,* and contrast the two. In your answer, describe the different players involved, and explain how activity in the two are related.

44. Discuss the small-firm effect, the neglected-firm effect, the January effect, and the tax effect. Explain how the four effects may be related.

45. Distinguish between fundamental analysis and technical analysis.

46. Discuss the relationships among interest rates (both real and nominal), expected inflation rates, and tax rates on investment returns.