

FINA3313-005 Homework 2

Chapter 04 Measuring Corporate Performance

True / False Questions

1. The higher the times interest earned ratio, the higher the interest expense.
True False
2. The asset turnover ratio and inventory turnover ratio are both efficiency ratios.
True False
3. Return on assets and return on equity are both profitability ratios.
True False
4. Market value added is the difference between the market value of the firm's equity and its book value.
True False
5. The difference between the current and quick ratios is that inventory has been subtracted from current assets.
True False
6. Residual income is another term for economic value added.
True False
7. EVA is the net profit of the firm adjusted for the cost of capital.
True False
8. ROE is equal to ROA when the firm has no debt.
True False

Multiple Choice Questions

9. When a firm's long-term debt-equity ratio is .98, the firm:
 - A. has too much long-term debt in relation to leases.
 - B. has less long-term debt than equity.
 - C. is nearing insolvency.
 - D. has as much in long-term liabilities as in equity.
10. If a firm's total debt ratio is greater than .5, then:
 - A. its current liabilities are quite high.
 - B. its debt-equity ratio exceeds 1.0.
 - C. it has too few total assets.
 - D. it has more long-term debt than equity.
11. An asset's liquidity measures its:
 - A. potential for generating a profit.
 - B. cash requirements.
 - C. ease and cost of being converted to cash.
 - D. proportion of debt financing.

12. Which of the following actions could improve a firm's current ratio if it is now less than 1.0?
 - A. Converting marketable securities to cash
 - B. Paying accounts payable with cash
 - C. Buying inventory on credit
 - D. Selling inventory at cost
13. A firm's quick ratio of .49 suggests the firm:
 - A. has a low level of current liabilities.
 - B. has been overstating the value of its inventory.
 - C. faces a potentially serious liquidity crisis.
 - D. should reduce its holdings of cash and/or marketable securities.
14. The inventory turnover ratio compares:
 - A. current assets to average inventory.
 - B. cost of goods sold to average inventory.
 - C. average receivables to average inventory.
 - D. average assets to average inventory.
15. What is the residual income for a firm with \$1 million in total capital, \$300,000 in net income, and a 20% cost of capital?
 - A. \$100,000
 - B. \$140,000
 - C. \$240,000
 - D. \$500,000
16. What is the residual income for a firm with \$1 million in total capital, \$300,000 in net income, and a 20% cost of capital?
 - A. \$100,000
 - B. \$140,000
 - C. \$240,000
 - D. \$500,000
17. Which of these indicates that a firm is efficient?
 - A. A high average collection period
 - B. A high day's sales in inventories
 - C. A low asset turnover
 - D. A high inventory turnover

Chapter 05 The Time Value of Money

True / False Questions

18. Compound interest pays interest for each time period on the original investment plus the accumulated interest.
True False
19. For a given amount, the lower the discount rate, the less the present value.

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True False

20. Comparing the values of undiscounted cash flows is analogous to comparing apples to oranges.

True False

21. Converting an annuity to an annuity due decreases the present value.

True False

22. Nominal dollars refer to the amount of purchasing power.

True False

23. An effective annual rate must be greater than an annual percentage rate.

True False

24. A dollar tomorrow is worth more than a dollar today.

True False

25. You should never compare cash flows occurring at different times without first discounting them to a common date.

True False

26. The Excel function for present value is PV (rate, nper, pmt, FV).

True False

27. An annuity due must have a present value at least as large as an equivalent ordinary annuity.

True False

Multiple Choice Questions

28. What is the future value of \$10,000 on deposit for 5 years at 6% simple interest?

A. \$7,472.58

B. \$10,303.62

C. \$13,000.00

D. \$13,382.26

29. Under which of the following conditions will a future value calculated with simple interest exceed a future value calculated with compound interest at the same rate?

A. The interest rate is very high.

B. The investment period is very long.

C. The compounding is annually.

D. This is not possible with positive interest rates.

30. How much interest is earned in just the third year on a \$1,000 deposit that earns 7% interest compounded annually?

A. \$70.00

B. \$80.14

C. \$105.62

D. \$140.00

31. Assume the total expense for your current year in college equals \$20,000. How much would your parents have needed to invest 21 years ago in an account paying 8% compounded annually to cover this amount?

A. \$952.46

B. \$1,600.00

- C. \$1,728.08
D. \$3,973.11
32. How long must one wait (to the nearest year) for an initial investment of \$1,000 to triple in value if the investment earns 8% compounded annually?
- A. 9.81 years
B. 14.27 years
C. 22.01 years
D. 25.00 years
33. Given a set future value, which of the following will contribute to a lower present value?
- A. Higher discount rate
B. Fewer time periods
C. Less frequent discounting
D. Lower discount factor
34. If the future value of an annuity due is \$25,000 and \$24,000 is the future value of an ordinary annuity that is otherwise similar to the annuity due, what is the implied discount rate?
- A. 1.04%
B. 4.17%
C. 5.00%
D. 8.19%
35. How much must be invested today in order to generate a 5-year annuity of \$1,000 per year, with the first payment 1 year from today, at an interest rate of 12%?
- A. \$3,604.78
B. \$3,746.25
C. \$4,037.35
D. \$4,604.78
36. You will be receiving cash flows of: \$1,000 today, \$2,000 at end of year 1, \$4,000 at end of year 3, and \$6,000 at end of year 5. What is the present value of these cash flows at an interest rate of 7%?
- A. \$9,731.13
B. \$10,412.27
C. \$10,524.08
D. \$11,524.91
37. A perpetuity of \$5,000 per year beginning today is said to offer a 15% interest rate. What is its present value?
- A. \$33,333.33
B. \$37,681.16
C. \$38,333.33
D. \$65,217.39
38. A corporation has promised to pay \$1,000 20 years from today for each bond sold now. No interest will be paid on the bonds during the 20 years, and the bonds are discounted at an interest rate of 7%, compounded semiannually. Approximately how much should an investor pay for each bond?
- A. \$70.00
B. \$252.57

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- C. \$629.56
D. \$857.43
39. Your retirement account has a current balance of \$50,000. What interest rate would need to be earned in order to accumulate a total of \$1,000,000 in 30 years, by adding \$6,000 annually?
- A. 5.02%
B. 7.24%
C. 9.80%
D. 10.07%
40. The present value of an annuity stream of \$100 per year is \$614 when valued at a 10% rate. By approximately how much would the value change if these were annuities due?
- A. \$10
B. \$61.40
C. $\$10 \times$ Number of years in annuity stream
D. $\$6.14 \times$ Number of years in annuity stream
41. If inflation in Wonderland averaged about 3% per month in 2013, what was the annual rate of inflation?
- A. 36.00%
B. 42.58%
C. 40.09%
D. 41.27%
42. Approximately how much should be accumulated by the beginning of retirement to provide a \$2,500 monthly check that will last for 25 years, during which time the fund will earn 6% interest with monthly compounding?
- A. \$361,526.14
B. \$388,017.16
C. \$402,766.67
D. \$414,008.24
43. With \$1.5 million in an account expected to earn 8% annually over the retiree's 30 years of life expectancy, what annual annuity can be withdrawn, beginning today?
- A. \$112,148.50
B. \$120,000.00
C. \$123,371.44
D. \$133,241.15
44. Real interest rates:
- A. always exceed inflation rates.
B. can decline to zero but no lower.
C. can be negative, zero, or positive.
D. traditionally exceed nominal rates.

Chapter 06 Valuing Bonds

True / False Questions

45. When the market interest rate exceeds the coupon rate, bonds sell for less than face value to provide enough compensation to investors.
True False
46. A bond's rate of return is equal to its coupon payment divided by the price paid for the bond.
True False
47. A long-term investor would more likely be interested in a bond's current yield rather than its yield to maturity.
True False
48. Bonds that have a Standard & Poor's rating of BBB or better are considered to be investment-grade bonds.
True False
49. It would be realistic to read an ask price listed as 100.127 and a bid price of 100.143.
True False
50. Even when the yield curve is upward-sloping, investors might rationally stay away from long-term bonds.
True False
51. Zero-coupon bonds are issued at prices below face value, and the investor's return comes from the difference between the purchase price and the payment of face value at maturity.
True False
52. Bond ratings measure a bond's credit risk.
True False

Multiple Choice Questions

53. The coupon rate of a bond equals:
A. its yield to maturity.
B. a defined percentage of its face value.
C. the yield to maturity when the bond sells at a discount.
D. the annual interest divided by the current market price.
54. Assume a bond is currently selling at par value. What will happen if the bond's expected cash flows are discounted at a rate lower than the bond's coupon rate?
A. The price of the bond will increase.
B. The coupon rate of the bond will increase.
C. The par value of the bond will decrease.
D. The coupon payments will be adjusted to the new discount rate.
55. When an investor purchases a \$1,000 par value bond that was quoted at 97.162, the investor:
A. receives 97.162% of the stated coupon payments.
B. receives \$971.62 upon the maturity date of the bond.
C. pays 97.162% of face value for the bond.

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- D. pays \$10,971.62 for a \$10,000 face value bond.
56. What happens to a discount bond as the time to maturity decreases?
- A. The coupon rate increases.
B. The bond price increases.
C. The coupon rate decreases.
D. The bond price decreases.
57. How much should you pay for a \$1,000 bond with 10% coupon, annual payments, and 5 years to maturity if the interest rate is 12%?
- A. \$927.90
B. \$981.40
C. \$1,000.00
D. \$1,075.82
58. A bond's yield to maturity takes into consideration:
- A. current yield but not any price changes.
B. price changes but not the current yield.
C. both the current yield and any price changes.
D. neither the current yield nor any price changes.
59. What is the yield to maturity for a bond paying \$100 annually that has 6 years until maturity and sells for \$1,000?
- A. 6.0%
B. 8.5%
C. 10.0%
D. 12.5%
60. Consider a 3-year bond with a par value of \$1,000 and an 8% annual coupon. If interest rates change from 8 to 6% the bond's price will:
- A. increase by \$51.54.
B. decrease by \$51.54.
C. increase by \$53.46.
D. decrease by \$53.46.
61. What is the rate of return for an investor who pays \$1,054.47 for a 3-year bond with coupon of 6.5% and sells the bond 1 year later for \$1,037.19?
- A. 4.53%
B. 5.33%
C. 5.16%
D. 4.92%
62. When the yield curve is upward-sloping, then:
- A. short-maturity bonds offer the highest coupon rates.
B. long-maturity bonds are priced above par value.
C. short-maturity bonds yield less than long-maturity bonds.
D. long-maturity bonds increase in price when interest rates increase.

63. Nominal U.S. Treasury bond yields:
- A. are constant over time.
 - B. are equal to the real yields.
 - C. include a default premium.
 - D. include an inflation premium.
64. Which one of the following bonds would be likely to exhibit a greater degree of interest rate risk?
- A. A zero-coupon bond with 20 years until maturity
 - B. A coupon-paying bond with 20 years until maturity
 - C. A floating-rate bond with 20 years until maturity
 - D. A zero-coupon bond with 30 years until maturity
65. Investors who purchase bonds having lower credit ratings should expect:
- A. lower yields to maturity.
 - B. higher default possibilities.
 - C. lower coupon payments.
 - D. higher purchase prices.
66. What is the amount of the annual coupon payment for a bond that has 6 years until maturity, sells for \$1,050, and has a yield to maturity of 9.37%?
- A. \$98.64
 - B. \$95.27
 - C. \$101.38
 - D. \$104.97

Chapter 07 Valuing Stocks

True / False Questions

67. The dividend discount model indicates that the value of a stock is the present value of the dividends it will pay over the investor's horizon, plus the present value of the expected stock price at the end of that horizon.
True False
68. An excess of market value over the book value of equity can be attributed to going concern value.
True False
69. Securities with the same expected risk should offer the same expected rate of return.
True False
70. If the stock prices follow a random walk, successive stock prices are not related.
True False
71. Sustainable growth rates can be estimated by multiplying a firm's ROE by its dividend payout ratio.
True False
72. If the market is efficient, stock prices should be expected to react only to new information that is released.

True False

73. The intent of technical analysis is to discover patterns in past stock prices.

True False

74. Strong-form market efficiency implies that one could earn above-average returns by examining the history of a firm's stock price.

True False

Multiple Choice Questions

75. The growth of mature companies is primarily funded by:

- A. issuing new shares of stock.
- B. issuing new debt securities.
- C. reinvesting company earnings.
- D. increasing accounts payable.

76. Wilt's has earnings per share of \$2.98 and dividends per share of \$.35. What is the firm's sustainable rate of growth if its return on assets is 14.6% and its return on equity is 18.2%?

- A. 2.14%
- B. 1.71%
- C. 12.89%
- D. 16.06%

77. What is the difference between a fundamental analyst and a technical analyst?

- A. Only a fundamental analyst believes markets are inefficient.
- B. A technical analyst focuses on financial statement analysis.
- C. Only a technical analyst helps keep the market efficient.
- D. A fundamental analyst analyzes information such as earnings and asset values.

78. According to the semistrong form of market efficiency, when new information becomes available in the market, the related stock prices will:

- A. remain unchanged because they already reflect this information.
- B. accurately and rapidly adjust to include this new information.
- C. adjust to accurately reflect this new information over the course of the next few days.
- D. most likely increase because all new information has a positive effect on stock prices.

79. What dividend yield would be reported in the financial press for a stock that currently pays a \$1 dividend per quarter and the most recent stock price was \$40?

- A. 2.5%
- B. 4.0%
- C. 10.0%
- D. 5.0%

80. If a stock's P/E ratio is 13.5 at a time when earnings are \$3 per year and the dividend payout ratio is 40%, what is the stock's current price?

- A. \$24.30
- B. \$18.00
- C. \$22.22
- D. \$40.50

81. With respect to the notion that stock prices follow a random walk, several researchers have concluded that:
- A. stock prices reflect a majority of available information about the firm.
 - B. successive price changes are predictable.
 - C. past stock price changes provide little useful information about current stock prices.
 - D. stock prices always rise excessively in January.
82. Firms with valuable intangible assets are more likely to show a(n):
- A. excess of book value over market value of equity.
 - B. high going-concern value.
 - C. low liquidation value.
 - D. low P/E ratio.
83. A stock paying \$5 in annual dividends currently sells for \$80 and has an expected return of 14%. What might investors expect to pay for the stock one year from now?
- A. \$82.20
 - B. \$86.20
 - C. \$87.20
 - D. \$91.20
84. The expected return on a common stock is equal to:
- A. $[(1 + \text{dividend yield}) \times (1 + \text{capital appreciation rate})] - 1$.
 - B. the capital appreciation rate + dividend yield.
 - C. $(1 + \text{capital appreciation rate}) / (1 + \text{dividend yield})$.
 - D. the capital appreciation rate - dividend yield.
85. If the dividend yield for year 1 is expected to be 5% based on a stock price of \$25, what will the year 4 dividend be if dividends grow annually at a constant rate of 6%?
- A. \$1.33
 - B. \$1.49
 - C. \$1.58
 - D. \$1.67
86. What price would you pay today for a stock if you require a rate of return of 13%, the dividend growth rate is 3.6%, and the firm recently paid an annual dividend of \$2.50?
- A. \$27.55
 - B. \$30.28
 - C. \$26.60
 - D. \$31.37
87. What rate of return is expected from a stock that sells for \$30 per share, pays \$1.54 annually in dividends, and is expected to sell for \$32.80 per share in one year?
- A. 15.03%
 - B. 14.28%
 - C. 14.09%
 - D. 14.47%
88. A positive value for PVGO suggests that the firm has:
- A. a positive return on equity.

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- B. a positive plowback ratio.
 - C. investment opportunities with superior returns.
 - D. a high rate of constant growth.
89. What proportion of earnings is being plowed back into the firm if the sustainable growth rate is 8% and the firm's ROE is 20%?
- A. 60%
 - B. 80%
 - C. 20%
 - D. 40%
90. How much of a stock's \$30 price is reflected in PVGO if it expects to earn \$4 per share, has an expected dividend of \$2.50, and a required return of 20%?
- A. \$0
 - B. \$6
 - C. \$8
 - D. \$10