## 2017 CFA Level 1 Mock Exam

1. Which of the following is least accurate about the Code of Ethics? Members will:
A. place the integrity of the investment profession and the interest of clients above their own personal interests
B. practice and encourage others to practice in a professional and independent manner that will reflect credit on themselves.
C. promote the integrity and viability of the global capital markets for the ultimate benefit of society.
2. Hank is scheduled to visit the corporate headquarters of Micro Inc. to use the information he obtains there to complete his research report on Micro Inc.'s stock. Hank learns that Micro Inc. plans to pay all of Hank's expenses for the trip. Which of the following would be the most appropriate action for Hank under the Code and Standards?
A. Accept the expense-paid trip, but write an objective report.
B. Make his own employer pay for all normal travel expenses.
C. Accept the expense-paid trip but disclose the item in the report.
3. An investment banking department of a brokerage firm often receives material nonpublic information of its clients that could have significant value in advising the firm's brokerage clients. To comply with the Code and Standards, which one of the following is the best policy for the brokerage firm?
A. Permanently prohibit making recommendations concerning the stocks of the investment banking clients to the brokerage clients
B. Monitor the exchange of information between the investment banking department and the brokerage operation.
C. Establish physical barriers within the firm to prevent the exchange of information between the investment banking and brokerage operations
4. Hu, CFA, is a portfolio manager at a consulting firm that specializes in providing investment advice for the retired. Hu 's parents is a fee-paying client with the firm. In addition, Hu does not have any beneficial interest in their account. To comply with the Standards, Hu's most appropriate action is to:
A. treat his parents' account in the same manner as his other clients' accounts.
B. refuse to manage his parents' account due to conflicts of interest. .
C. prioritize the trades for other clients' accounts above his parents' account.
5. Prior to resigning from AAA, Henry spends his spare time making the necessary preparation to start his own business. However, he takes a copy of his individual client list home in order to solicit the clients once he has officially left AAA. Has Henry most likely violated any CFA Institute Standards?
A. No.
B. Yes, by making preparation for independent practice while still employed.
C. Yes, by taking client list without prior written consent from his employer.
6. Kelly, CFA, manages a hedge fund with a strategy to select growth stocks. Due to significant shift in global economy and national industry policy, Kelly changes her strategy. A day after implementing the change, Kelly tells her clients that the original strategy has been changed. Has she most likely violated the Standards?
A. No.
B. Yes, by failing to inform her clients in advance of the fund' s investment style.
C. Yes, by failing to distinguish between fact and opinions.
7. Will, CFA, works for ABC Brokerage. He intends to make a purchase recommendation on XYZ. Which of the following situations is least likely to represent a conflict of interest for Will that would have to be disclosed?
A. Two senior officers of ABC are sitting on the board of XYZ.
B. ABC holds a substantial common stock position in XYZ for its own account.
C. Will's father-in-law is the CEO of a major supplier to XYZ.
8. Lin, CFA, manages a hedge fund. She states in her marketing materials that the firm employs only analysts who are CFA charterholders and ranked the highest in ethical and professional standard topic for CFA exam, so the firm is committed to the highest ethical standards. Has Lin most likely violated the Standards?
A. No.
B. Yes, relating to misrepresentation.
C. Yes, relating to reference to CFA Institute, the CFA Designation, and the CFA program.
9. Which one of the following statements is least accurate concerning the objective of the GIPS?
A. Achieve worldwide acceptance of a standard method of calculating and presenting investment
performance that is based on fair presentation and full disclosure.
B. Promote fair competition amongst global investment management firms in ways that do not create barriers to entry into the industry.
C. Encourage the idea that the investment industry regulates itself on a national basis.
10. An inyestor plans to purchase a bill with a face value of $\$ 1,000$ that matures in 9 months. If the bill has a stated annual rate of $3 \%$, compounded continuously, the bill's selling price is closest to:
A. $\$ 979.85$.
B. $\$ 978.07$.
C. \$977.75.
11. A portfolio has an expected return of $16 \%$ and a Sharpe ratio of 2 . Given the risk-free rate of return is $\mathbf{4 \%}$, the portfolio has a coefficient of variation that is closest to:
A. 0.375 .
B. 0.500 .
C. 2.667.
12. The probability that Fund $A$ beats the $S \& P 500$ is $\mathbf{6 0 \%}$, and the probability that Fund $A$ and Fund B both beat the $S \& P 500$ is $\mathbf{2 4 \%}$. If the two funds returns are independent, the probability that at least one fund beats the market is closest to:
A. $60 \%$.
B. $76 \%$.
C. $84 \%$.
13. If a normal distribution has a mean of 10 and a variance of 16 , the probability of observing a value more than 14 is closest to:
A. $16 \%$.
B. $32 \%$.
C. $68 \%$.
14. For a random sample of 100 companies, the mean return on equity is 20 percent with a population standard deviation of 15 percent. Given the appropriate reliability factor is 1.96, the lower limit of a 95 percent confidence interval for the population mean is closest to:
A. $-9.40 \%$.
B. $17.06 \%$.
C. $22.94 \%$.
15. The alternative hypothesis is that the slope coefficient is greater than zero. The calculated test statistic is 1.5 , and the critical value is 1.65 at the $5 \%$ significance level and is 1.28 at the $\mathbf{1 0 \%}$ significance level. The analyst conducts a:
A. one-tailed test and can reject the null hypothesis at $5 \%$ significance level.
B. one-tailed test and can reject the null hypothesis at $10 \%$ significance level.
C. two-tailed test and can reject the null hypothesis at $10 \%$ significance level.
16. In technical analysis, if a head and shoulders pattern has a neckline formed at $\$ 18$, the shoulder at 26 , and the head at $\$ 32$, the price target is closest to:
A. $\$ 4$.
B. $\$ 24$.
C. \$46.
17. A demand function for product $X$ is:
$Q_{X}=1,000-2 P_{X}+9 P_{Y}-10 P_{Z}+0.400$ income
At current average prices, a Product $X$ costs $\$ 5$, a Product $Y$ costs $\$ 20$, and a Product $Z$ costs $\$ 4$. Average income is $\$ 4,000$. The income elasticity of demand for Product $X$ is closest to:
A. 0.400 .
B. 0.586 .
C. 1,600 .
18. The demand schedule in a perfectly competitive market is $P=93-1.5 Q(Q \leqslant 62)$ and the long-run cost structure of each company is:
Total cost: $\quad 256+2 Q+4 Q 2$
Average cost: $256 / Q+2+4 Q$
Marginal cost: $2+8 Q$
At long-term equilibrium, each company in the market will set a price closest to:
A. 8 .
B. 66 .
C. 81 .
19. From the beginning of year 1 to the end of year 5, the annual value of final goods and services for a country increased from $\mathbf{\$ 1 0 0}$ billion to $\mathbf{\$ 3 0 0}$ billion. Over the five years, the GDP deflator increased from 100 to 150 . Over the period, real GDP for the country increased by:
A. $50 \%$.
B. $100 \%$.
C. $200 \%$.
20. Which of the following theories suggests that excessive optimism or pessimism among business managers causes business cycles and that contractions can persist because wages are slow to move downward?
A. Neoclassical school.
B. Keynesian school.
C. New Keynesian school.
21. The most likely goal of a central bank's monetary policy is to:
A. redistribute income and wealth.
B. influence aggregate national output.
C. ensure the stability of the purchasing power of its currency.
22. An analyst gathers the following information:

Spot Rate
CAD / USD 0.9771
USD / EUR 1.2228
The cross-rate CAD/EUR is closest to
A. 0.7991 .
B. 1.1948 .
C. 1.2515.
23. Which of the following is most likely an element of the income statement?
A. Prepaid expenses.
B. Unearned revenue.
C. Sales allowance.
24. 24. Shares of common stock

50,000
Net income for the year
Par value of a $6 \%$ coupon rate convertible bonds
Par value of a $\mathbf{1 0 \%}$ dividend rate cumulative preferred stock 100,000 \$100,000

Tax rate 30\%

The bonds can be converted into 18,000 common shares.
Diluted earnings per share for the year is closest to:
A. $\$ 1.51$.
B. $\$ 1.66$.
C. $\$ 1.80$.
25. The unrealized gain for a held to maturity security is most likely recorded on:
A. the income statement.
B. the balance sheet.
C. neither the income statement nor the balance sheet.
26. 2016 Jan 01 shareholders' equity

2016 Net income
2016 Shares issued
2016 Dec 31 shareholders' equity
$\$ 3,000,000$ $\$ 300,000$
$\$ 200,000$
$\$ 4,000,000$

If there was no dividends paid or shares repurchased, the other comprehensive income is closest to:
A. $\$ 500,000$.
B. $\$ 800,000$.
C. $\$ 1,100,000$.
27. Issued preferred stock
$\mathbf{\$ 9 0 , 0 0 0}$
Repurchased short-term bond \$35,000

Receivables collection $\$ \mathbf{2 0 , 0 0 0}$
Purchased a patent for cash $\mathbf{\$ 6 0 , 0 0 0}$
What is the combined effect of the above transactions on the cash flow from:
operating activities?
A. $\quad \$ 40,000$
B. $+\$ 20,000$
C. $-\$ 60,000$
financing activities?
$+\$ 55,000$

+ \$55,000
- \$95,000

28. 

| Revenue | $\mathbf{1 0 0 , 0 0 0}$ | $\mathbf{8 0 , 0 0 0}$ |
| :--- | ---: | ---: |
| Net income | $\mathbf{2 5 , 0 0 0}$ | $\mathbf{2 4 , 0 0 0}$ |
| Average total assets | $\mathbf{5 0 0 , 0 0 0}$ | $\mathbf{4 0 0 , 0 0 0}$ |
| Average equity | $\mathbf{2 5 0 , 0 0 0}$ | $\mathbf{2 0 0 , 0 0 0}$ |

Using DuPont analysis, the change in return on equity is best explained by a change in:
A. financial leverage.
B. efficiency.
C. profitability.
29. Assuming inventory quantities are increasing and inventory costs are falling. Which of the following is most likely lower under the weighted average cost method than under FIFO?
A. Gross profit.
B. Current ratio.
C. Cost of goods sold.
30. A firm buys a piece of equipment with a cost of $\$ 100,000$, an estimated useful life of 4 years, and an estimated salvage value of $\$ 10,000$. Using the diminishing balance depreciation method and a $\mathbf{1 2 0 \%}$ acceleration factor, the book value at the end of Year $\mathbf{2}$ is closest to:
A. $\$ 49,000$.
B. $\$ 51,000$.
C. $\$ 70,000$.
31. Pre-tax accounting profit
$\$ 80,000$
Carrying amount of an asset
Tax base of the asset \$18,000
Income tax rate
30\%

Based on this information, the company most likely reports:
A. a deferred tax asset of $\$ 600$.
B. a deferred tax liability of $\$ 600$.
C. income taxes payable of $\$ 24,000$.
32. A firm issues a 5-year callable bond at par. Two years later, the firm calls the bonds at 101 .

A comparable 3-year option-free bond is trading at 102 when the callable bond is called. The firm most likely experiences an:
A. economic loss, and the income statement reports a loss.
B. economic gain, and the income statement reports a loss.
C. economic gain, and the income statement reports a gain.
33. At the end of the year 2016, a firm's defined benefit pension obligation has a present value of $\$ 500,000$, and the plan assets has a fair value of $\$ 600,000$, the reporting on its balance sheet would be closest to:
A. $\$ 500,000$ in liabilities and $\$ 600,000$ in assets.
B. $\$ 100,000$ in liabilities.
C. $\$ 100,000$ in assets.
34. Accrued liabilities 300 Short-term debt 200 Current liabilities 500

Long-term debt 450 Deferred tax liabilities 250 Non-current liabilities 700
Shareholders' equity 800
If the analyst wants to sell the stock of any company with debt to equity ratio greater than 0.85 or financial leverage ratio greater than 3 , will the stock be sold?
A. No.
B. Yes, the debt to equity ratio is too high.
C. Yes, the financial leverage ratio is too high.

| 35. Units produced and sold | $\mathbf{6 , 0 0 0}$ |
| :--- | ---: |
| Degree of total leverage | 6 |
| Degree of financial leverage | 3 |
| Expected growth in units sold | $\mathbf{5 \%}$ |

The expected growth in operating income is closest to:
A. $15 \%$.
B. $10 \%$.
C. $30 \%$.
36. A project has the following features:

Market value of debt $\$ \mathbf{3}$ million
Market value of equity $\$ 7$ million
Marginal tax rate $\mathbf{3 0 \%}$
If the asset beta of 1.30 , the project beta is closest to:
A. 0.91 .
B. 1.57.
C. 1.69 .
37. Projec

1

2
3

Profitability index
1.5
1.8
2.0

Initial investment
$\mathbf{\$ 2 0 , 0 0 0}$
$\$ 13,000$
$\mathbf{\$ 1 0 , 0 0 0}$

If the three mutually exclusive projects all have conventional cash flows, the most appropriate investment alternative is:
A. Project 1.
B. Project 2.
C. Project 3.
38. The face value of a $T$-bill is $\$ 1,000,000$, the purchase price is $\$ 990,000$, and the term to maturity is $\mathbf{6 2}$ days. The bill's money market yield is closest to:
A. $5.81 \%$.
B. $5.87 \%$.
C. $5.95 \%$.
39. Current share price $\mathbf{\$ 6 0 . 0 0}$ Earnings per share $\mathbf{\$ 3 . 0 0}$

Before-tax cost of funds 7\% Marginal tax rate $\mathbf{3 0 \%}$
The firm borrows funds to repurchase its own shares at the current price.
The firm's EPS after the share repurchase will most likely:
A. decrease.
B. remain the same.
C. increase.
40. An investor purchases a stock at $\$ 100$ per share with a $\mathbf{5 0 \%}$ initial margin and receives a margin call when the stock price drops below $\$ 75$. The maintenance margin requirement is closest to:
A. $33 \%$.
B. $36 \%$.
C. $39 \%$.
41. Which of the followings is most accurate about a strong form efficient market?
A. Company insiders can consistently earn excess returns from trading on private information.
B. Fundamental analysis can consistently generate abnormal returns.
C. Passive portfolio management should outperform active management in the long run.

| 42. Firm | Beginning Share Price | Ending Share Price | Outstanding Shares |
| :--- | :--- | :---: | :---: |
| 1 | $\$ 30$ | $\$ 40$ | 2,000 |
| 2 | $\$ 20$ | $\$ 18$ | $\mathbf{3 , 0 0 0}$ |
| 3 | $\$ 25$ | $\$ 22$ | $\mathbf{1 , 0 0 0}$ |

The price return of the price weighting index is closest to:
A. $3.7 \%$.
B. $6.7 \%$.
C. $7.6 \%$.
43. An investor owns $\mathbf{1 , 0 0 0}$ common shares and 500 preference shares in a company that is electing six board directors. The maximum number of votes the investor may cast for a single candidate is:
A. 1,000 under statutory voting and 6,000 under cumulative voting.
B. 1,500 under statutory voting and 6,000 under cumulative voting.
C. 1,500 under statutory voting and 9,000 under cumulative voting.
44. Which of the following stages of an industry life-cycle model is best characterized by intense competition and declining profitability?
A. shakeout stage.
B. mature stage.
C. decline stage.
45. Current dividend (D0)
Dividend growth rate: Years 1 and year 2
Dividend growth rate: Year 3 and beyond 5\%
Required rate of return on equity 8\%
The stock's intrinsic value is closest to:
A. \$76.73.
B. $\$ 76.83$.
C. \$84.70.

## 46. Which of the following statements is least accurate?

A. A derivative is best described as a financial instrument that derives its performance by passing through the returns of the underlying.
B. Compared with the underlying spot market, derivative markets are more likely to have greater liquidity, lower transaction costs, and lower capital requirements.
C. Increased defaults by speculators is most likely to be a destabilizing consequence of speculation using derivatives.
47. If the present value of storage costs and protecting costs are less than the present value of its convenience yield, the commodity's forward price is most likely:
A. less than the spot price compounded at the risk-free rate.
B. the same as the spot price compounded at the risk-free rate.
C. higher than the spot price compounded at the risk-free rate.
48. An investor paid $\$ 5$ for a call option that was in-the-money by $\$ 3$. If the price of the underlying asset was $\$ 58$ at the time the investor purchased the call option, the breakeven price of the call option was closest to:
A. $\$ 55$.
B. $\$ 56$.
C. $\$ 60$.
49. Which of the following statements is least accurate?
A. The embedded conversion option in a bond is most likely to benefit the bondholder when equity price rise.
B. The embedded call option in a bond is most likely to benefit the bondholder when interest rates fall.
C. The embedded put option in a bond is most likely to benefit the bondholder when interest rates rise.

## 50. Which of the following statements is least accurate?

A. Non-sovereign bonds are issued by governments below the national level such as states, provinces, regions, or cities.
B. Sovereign bonds are issued by national governments or their treasuries, backed by the taxing power of the government.
C. Agency bonds are issued by multilateral agencies.

| 51. Firm | debt | FFO / | debt / | EBITDA / |
| :---: | :---: | :---: | ---: | ---: |
|  | capital | debt | EBITDA | interest |
| 1 | $42 \%$ | $36 \%$ | $2.2 x$ | $6.9 x$ |
| 2 | $44 \%$ | $28 \%$ | $3.8 x$ | $7.2 x$ |

Compared to Firm 1, Firm 2's credit rating is most likely:
A. lower.
B. higher.
C. the same.
52. Time period
$0 y 1 y$
1y1y
2 y 1 y
3y1y
The implied 3-year spot rate is closest to:
A. $2.3240 \%$.
B. $2.7278 \%$.
C. $3.0741 \%$.
53. An option-free bond has an annual modified duration of 9.42 and an annual approximate convexity of 136.66 . If the bond's yield to maturity increases by $\mathbf{1 \%}$, the expected percentage price change is closest to:
A. $-8.7367 \%$.
B. $-9.4200 \%$.
C. $-10.1033 \%$.
54. Mortgage principal prepayment
\$1,000,000
Scheduled principal repayment
Gross coupon interest paid
\$910,542

Servicing fees
\$3,562,500

Other fees for guaranteeing the issue
\$337,500

The total cash flow to be passed through to the investors is closest to:
A. $\$ 4,077,209$.
B. $\$ 5,077,209$.
C. $\$ 5,473,042$
55. Ali Capital is a hedge fund with $\mathbf{\$ 1 0 0}$ million of initial capital. Ali charges a $\mathbf{2 \%}$ management fee based on assets under management at year end, and a $\mathbf{2 0 \%}$ incentive fee based on returns in excess of an $\mathbf{5 \%}$ hurdle rate. In its first year, Ali appreciates $\mathbf{3 0 \%}$. The investor's net return assuming the incentive fee is calculated net of the management fee is closest to:
A. $21.40 \%$.
B. $21.92 \%$.
C. $22.92 \%$.
56. Compared with traditional investments, alternative investments are least likely to be characterized by:
A. high leverage and low diversification.
B. high liquidity and low management fees.
C. less regulation and less transparency.
57. Which of the following statements is most accurate?
A. Defined benefit pension plans typically have lower risk tolerance than banks and property and casualty insurance companies.
B. Endowments typically have longer time horizon than defined benefit pension plans and life insurance companies.
C. Investment companies typically have lower liquidity needs than defined benefit pension plans and endowments.
58. Which of the following is most accurate about an investor's risk objective?
A. Ability to accept risk is subjective, while willingness to accept risk is objective.
B. Outperforming the S\&P 500 by 100 basis points in 2017 is best described as a relative risk objective.
C. Value at risk (VaR).can be used as an absolute risk measure.
59. An analyst obtains the following information for three funds:

Fund
Time since inception
Return since inception

| 1 |  |  |
| :--- | :--- | :--- |
| 2 | $\left\{\begin{array}{l}1 \text { week } \\ 15 \text { days } \\ 3\end{array}\right.$ | 18 months |

The fund with the lowest annualized rate of return is:
A. Fund 1.
B. Fund 2.
C. Fund 3.
60. Standard deviation of the security's return $\mathbf{2 0 \%}$

Standard deviation of the market portfolio's returns $\mathbf{1 0 \%}$
Correlation between return of the security and the market portfolio 0.75
Expected return on the market portfolio $\mathbf{1 0 \%}$
Risk-free rate $\quad \mathbf{2 \%}$
Based on the capital asset pricing model (CAPM), the security's expected return is closest to:
A. $14 \%$.
B. $15 \%$.
C. $17 \%$.

