



CredGuild

PRACTICE QUESTIONS

CFA® Program Level I

50 Practice Questions with Answers

2027 curriculum · all 10 topics · answers and full explanations

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ABOUT THIS EDITION

CredGuild · CFA® Program Level I · 50 Practice Questions with Answers
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USING THIS BOOK

These questions are a study aid. Use them alongside the CFA Institute curriculum. The latest version is free at credguild.com.

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Contents

How to use these questions	1
Quantitative Methods (questions 1–6)	2
Economics (questions 7–10)	4
Corporate Finance (questions 11–14)	5
Financial Statement Analysis (questions 15–20)	6
Equities (questions 21–26)	8
Fixed Income (questions 27–32)	10
Derivatives (questions 33–36)	12
Alternative Investments (questions 37–39)	13
Portfolio Construction (questions 40–44)	14
Ethical and Professional Standards (questions 45–50)	16
Answers and explanations	18
Keep going at credguild.com	38

How to use these questions

50 questions from all 10 topics of the 2027 CFA® Program Level I curriculum, in proportion to the exam's topic weights: Quantitative Methods 6, Economics 4, Corporate Finance 4, Financial Statement Analysis 6, Equities 6, Fixed Income 6, Derivatives 4, Alternative Investments 3, Portfolio Construction 5, Ethical and Professional Standards 6.

- Work through them as a timed set. At exam pace, 90 seconds a question, that is about 75 minutes.
- Write your answers down, then check them in "Answers and explanations" at the back. Each explanation says why the right answer is right and why each other option is wrong.
- Each answer names the reading it comes from, with a link to the notes.

On credguild.com the same questions are scored as you answer, and a free account answers any question in the bank, up to 50 new questions a day. The free diagnostic test (credguild.com/cfa/level-1/diagnostic/) gives you a score in each topic.

If these questions help you, pass the file on to someone else who is studying.

PRACTICE QUESTIONS

Quantitative Methods

Question 1

A company must pay a supplier €250,000 in exactly one year. Its treasurer discounts this payment at a stated annual rate of 6%. Under which compounding convention will the present value of the payment be *lowest*?

- A Annual compounding.
- B Monthly compounding.
- C Semiannual compounding.

Question 2

The prices of the stocks in a price-weighted index add up to \$270, and the divisor is 1.80. One constituent, trading at \$90, then completes a 3-for-1 stock split. The divisor that should be used immediately after the split is *closest* to:

- A 0.60.
- B 1.40.
- C 1.80.

Question 3

A multi-asset portfolio produced the returns shown below over the last four years.

Annual returns of a multi-asset portfolio (sample)

Year	Return
1	19.0%
2	7.5%
3	-9.6%
4	4.9%

Treating these returns as a sample, their coefficient of variation is *closest* to:

- A 0.46.
- B 1.87.
- C 2.16.

Question 4

A credit researcher compiles the following default data for bond issuers in three sectors:

Bond issuers by sector and default status

Sector	No default	Technical default	Actual default	Total
Energy	94	16	15	125
Healthcare	108	9	13	130
Utilities	126	8	16	150
Total	328	33	44	405

Assuming sector and default status are independent, the expected number of energy issuers in technical default is *closest* to:

- A
- B
- C

Question 5

Which of the following is *most likely* an advantage of historical simulation compared with a parametric approach that assumes normally distributed returns?

- A It remains reliable after a regime change that makes the future unlike the past.
- B It captures fat tails and volatility clustering without imposing a distributional assumption.
- C It can generate outcomes more extreme than any observed during the lookback period.

Question 6

A lender at Brackenridge Credit trains a model on records of past borrowers, each tagged with the borrower's financial ratios and whether the borrower eventually defaulted. The model learns to map the ratios to the default outcome and is then applied to new loan applicants. This machine learning process is best described as:

- A unsupervised learning.
- B supervised learning.
- C reinforcement learning.

PRACTICE QUESTIONS

Economics

Question 7

A bank economist makes three claims about the lending (credit) cycle and its link to the business cycle. Which claim is *least accurate*?

- A Easy credit conditions during an expansion can contribute to asset price bubbles.
- B Credit cycles tend to amplify business cycles.
- C On average, credit cycles have been shorter than business cycles.

Question 8

In Taviston, unions and employers routinely write the central bank's announced inflation target into multi-year wage agreements, and lenders price loans on the assumption that inflation will stay close to that target. This behavior indicates that Taviston's central bank has:

- A credibility.
- B transparency.
- C target independence.

Question 9

Regarding the gains and losses that international trade creates, which of the following statements is *most accurate*?

- A Every group in each of the trading countries is made better off by increased trade.
- B The costs of trade fall mainly on firms and workers in domestic industries that compete with imports.
- C With respect to domestic employment, the costs of trade outweigh its benefits.

Question 10

A dealer's SGD/AUD quotes are 0.8870 for spot settlement and 0.8795 for delivery in 12 months. Measured against spot, the forward quote is a:

- A premium of 75 points, and the SGD is at a forward discount to the AUD.
- B discount of 75 points, and the SGD is at a forward premium to the AUD.
- C discount of 7.5 points, and the SGD is at a forward discount to the AUD.

PRACTICE QUESTIONS

Corporate Finance

Question 11

Two siblings plan to buy and operate a vineyard. They will manage it themselves and accept unlimited liability for its debts. Four cousins will contribute capital but will take no part in running the business and want their liability capped at the amount they invest. The *most appropriate* organizational form is a:

- A limited partnership.
- B general partnership.
- C limited liability partnership.

Question 12

The board of Castleford Water is drafting the charter of its new audit committee. Which of the following duties should be assigned to a different board committee instead?

- A Overseeing the financial reporting process and the application of accounting policies.
- B Reviewing the effectiveness of internal controls and of the internal audit function.
- C Overseeing the company's corporate governance code, including board elections.

Question 13

Tamsin Foods is reviewing three capital projects. Which one would typically need the *most* detailed analysis?

- A Replacing a packaging machine that still works with a newer model that costs less to run.
- B Launching a new product line in a region where the company does not yet sell.
- C Installing fire-suppression equipment that the company's insurer now requires.

Question 14

A laptop maker has sold a premium keyboard, a high-resolution display and three years of on-site support as separate options. For its next model it decides to stop selling them separately and to include all three with the laptop for one combined base price. Which pricing model *best* reflects this decision?

- A Value-based pricing.
- B Bundling.
- C Dynamic pricing.

PRACTICE QUESTIONS

Financial Statement Analysis

Question 15

During the current year, Brantley Industrial recorded a \$14 million restructuring charge to close two of its warehouses. Its board also approved a formal plan to sell Brantley's marine-engine business, a separate major line of business with its own plants, management and financing that can be clearly separated from the rest of the company. The business meets the criteria to be classified as held for sale, and the sale is expected to close next year at a gain. Which statement about Brantley's income statement for the current year is *most accurate*?

- A The marine-engine business's results are reported net of tax after income from continuing operations, and the prior-year income statement presented is restated to show them separately.
- B The restructuring charge is reported net of tax below income from continuing operations.
- C The expected gain on the sale of the marine-engine business is recognized in the current year, when the disposal plan is approved.

Question 16

An analyst is rebuilding the operating section of Castellan Paper's statement of cash flows, which is prepared using the indirect method. Which of the following items recorded by Castellan during the year requires an addition to net income in arriving at cash flow from operating activities?

- A A loss on the early retirement of its bonds.
- B A gain on the sale of a delivery truck.
- C A decrease in its deferred tax liability.

Question 17

Three companies each report that the net realizable value of their inventory is now above its original cost. Which company is *most likely* permitted to carry that inventory on its balance sheet at an amount above historical cost?

- A Ridgeback Electronics, a US GAAP retailer of smartphones.
- B Coldwater Timber, an IFRS producer of forest products that trade in an active market.
- C Marigold Apparel, an IFRS reporter that wrote its clothing down to net realizable value last year.

Question 18

Which of the following items is *least likely* to be a required disclosure about Tavener Systems' share-based compensation plans?

- A How the fair value of the awards at the grant date was determined.
- B The effect of share-based payment transactions on the company's balance sheet.
- C Tavener's share price at the reporting date.

Question 19

An analyst concludes that Fenwick Brewing's financial reports are of high quality. Fenwick's reported earnings *could* still be:

- A of low quality, because they are not sustainable.
- B smoothed through management's choice of estimates.
- C overstated because asset impairments were recognized late.

Question 20

Since finishing her earnings forecast for Brenton Mining, Clara Voss has seen the company announce a new product line and a reorganization of its divisions. She had anticipated some of these developments in her forecast but not others. Nonetheless, she is unwilling to revise her forecast. Voss is *most likely* displaying:

- A confirmation bias.
- B conservatism bias.
- C representativeness bias.

PRACTICE QUESTIONS

Equities

Question 21

Kavanagh Dairy set the record date for voting at its annual meeting 35 days before the meeting. Ingrid Solheim, who owned 800 Kavanagh shares on the record date, sells them to Paulo Mendes 5 days before the meeting. Who is entitled to vote those 800 shares at the meeting?

- A Mendes, because he owns the shares on the meeting date.
- B Solheim, because she was the shareholder of record on the record date.
- C Neither of them, because the shares changed hands after the record date.

Question 22

Galloway Brewing pays a dividend of \$0.90 per share. Its shares close at \$48.00 on the day before the ex-dividend date and at \$45.60 on the ex-dividend date. Assume Galloway has the same risk as the overall market and there is no company news. The fraction of Galloway's ex-dividend-date price drop that is attributable to the market is *closest* to:

- A 62.5%.
- B 37.5%.
- C 3.3%.

Question 23

Which of the following statements *most accurately* contrasts a dividend discount model (DDM) with a free cash flow to equity (FCFE) model?

- A A DDM reflects the firm's capacity to pay dividends, while an FCFE model uses the cash shareholders actually receive.
- B A DDM takes the view of a minority shareholder, while an FCFE model takes the view of a controlling shareholder.
- C A DDM assumes a volatile capital structure, while an FCFE model assumes the firm borrows aggressively.

Question 24

An analyst's forecast for Carrow Retail assumes that revenue will grow 3% a year, while most of Carrow's operating expenses, including SG&A and depreciation, will grow 5% to 6% a year. Based only on this information, which of the following is *most likely*?

- A The gross profit margin is expected to remain steady.
- B The net profit margin is expected to increase.
- C The operating profit margin is expected to decrease.

Question 25

Fennwick Pumps makes solar-powered irrigation pumps. Across its home continent, annual demand for such pumps (the total addressable market) is estimated at \$2.4 billion. Fennwick's pumps are certified only for the voltage standard used in 70% of that demand, and within the certified segment it holds sales licenses in countries representing 55% of that segment's demand. Its factory can supply at most \$300 million of pumps a year. Fennwick's serviceable market is *closest* to:

- A \$924 million.
- B \$1,320 million.
- C \$1,680 million.

Question 26

Eighteen months ago, Galloway Industries sold its stable consumer division and financed a large acquisition mostly with new debt. An analyst estimating Galloway's beta with the market model decides to lengthen the lookback period from 2 years to 8 years. This change will *most likely*:

- A make the beta more reliable, because a larger sample lowers statistical noise.
- B increase the amount of mean reversion built into the adjusted beta.
- C produce a beta that reflects a risk profile Galloway no longer has.

PRACTICE QUESTIONS

Fixed Income

Question 27

Priya Nair's main concern in her bond portfolio is reinvestment risk. Which of the following is she *least likely* to do?

- A Choose a noncallable bond over an otherwise identical callable bond.
- B Choose a low-coupon bond over a high-coupon bond of the same maturity.
- C Rely on holding a coupon-paying bond to maturity to remove the risk.

Question 28

The central bank of Valdoria conducts much of its policy through a group of designated primary dealers. Which transaction is it *most likely* to carry out with them?

- A Expansionary monetary policy by selling government bonds.
- B Expansionary monetary policy by buying government bonds.
- C Contractionary fiscal policy by cutting government spending.

Question 29

A floating-rate note issued by Penhale Chemicals pays the market reference rate plus 85 basis points. Dealers now price the note at a discount margin of 55 basis points. Which of the following is the *most likely* explanation for the difference?

- A The market reference rate has fallen since the note was issued.
- B The issuer's credit quality has improved since the note was issued.
- C The note is currently priced below its par value.

Question 30

Which statement about an option-free bond with positive convexity is *most accurate*?

- A A given fall in yield raises its price by more than the same rise in yield lowers it.
- B An increase in its yield leads to an increase in its price.
- C Its price rises and falls at a faster rate than its yield changes.

Question 31

An analyst compares the fiscal strength of two sovereign issuers using the following data.

Selected fiscal data for two sovereign issuers (USD billions)

Item	Kestria	Varnholm
Nominal GDP	1,200	500
Government debt	780	290
Government revenue	420	145
Annual interest expense on government debt	29.4	13.05

Based on the debt burden (government debt to GDP) and debt affordability (interest expense to government revenue), which statement is *most accurate*?

- A Kestria is stronger on both debt burden and debt affordability.
- B Varnholm has the lighter debt burden, but Kestria has better debt affordability.
- C Varnholm is stronger on both debt burden and debt affordability.

Question 32

Halden Card Trust issued asset-backed securities backed by credit card receivables, and the securities are still in their lockout period. Which event would *most likely* cause the ABS holders to start receiving principal payments ahead of schedule?

- A Cardholders repay a larger share of their balances each month.
- B A trigger in the early (rapid) amortization provision is breached.
- C The interest rate charged on the card balances reaches its cap.

PRACTICE QUESTIONS

Derivatives

Question 33

Tobias Grant buys a call option on Wexford Bio shares with an exercise price of \$36.00 for a premium of \$3.40, when the shares trade at \$38.90. At expiration the shares are priced at \$37.10. Grant's net profit or loss on the call is *closest* to:

- A -\$3.40.
- B -\$2.30.
- C \$2.30.

Question 34

An analyst compares forwards on two commodities with the same spot price and the same time to settlement. Commodity P has no costs or benefits of holding. For commodity Q, storage and insurance costs exceed its convenience yield. Compared with the forward price on P, the no-arbitrage forward price on Q will be:

- A Lower.
- B Higher.
- C The same.

Question 35

An analyst breaks a fixed-for-floating interest rate swap into a series of forward contracts (FRAs), each with a contract rate equal to the swap's fixed rate. For this series to replicate a swap entered at market terms, the forward contracts must have:

- A values that are each equal to zero at swap initiation.
- B values that sum to zero at swap initiation.
- C values that sum to zero at swap expiration.

Question 36

A portfolio manager wants to reproduce the expiration payoff of a European put without trading any puts. She can trade the stock, a European call with the same strike and expiration, and a risk-free pure-discount bond that pays the exercise price X at expiration. Based on put-call parity, which combination should she hold?

- A Short the stock, long the call, short a pure-discount bond that pays X.
- B Short the stock, long the call, long a pure-discount bond that pays X.
- C Long the stock, short the call, short a pure-discount bond that pays X.

PRACTICE QUESTIONS

Alternative Investments

Question 37

A private equity fund invests \$60 million in Ashby Robotics and \$40 million in Corran Freight. In the same year, Ashby is sold for \$81 million and Corran is liquidated for \$34 million. The general partner's carried interest is 20%, profits are distributed under a deal-by-deal (American-style) waterfall, and there is no clawback provision. The limited partners' return on the \$100 million, after carried interest, is *closest* to:

- A 15.0%.
- B 12.0%.
- C 10.8%.

Question 38

Which of the following is *least likely* to be classified as social infrastructure?

- A Schools.
- B Waste treatment facilities.
- C Health care facilities.

Question 39

An adviser makes three claims to a client about hedge funds as a vehicle. Which claim is *least* accurate?

- A They are generally offered only to investors who meet accredited, qualified or institutional-investor thresholds.
- B Their use of leverage and derivatives can give them a risk and return profile quite unlike that of the assets they hold.
- C They are regulated about as heavily as mutual funds, which confines them to a narrow set of permitted strategies.

PRACTICE QUESTIONS

Portfolio Construction

Question 40

An analyst collects four years of returns for two stocks:

Annual returns on two stocks (%)

Year	Stock P	Stock Q
1	9	14
2	3	6
3	12	10
4	8	10

Using the sample formula, the covariance between the returns of Stock P and Stock Q (in percent squared) is *closest* to:

- A
- B
- C

Question 41

An investor combines a risk-free asset with a portfolio of risky assets. Which statement about the new portfolio is *least accurate*?

- A Its variance equals the weighted average of the variances of the risk-free asset and the risky portfolio.
- B Its expected return is a weighted average of the risk-free rate and the risky portfolio's expected return.
- C Its standard deviation equals the risky portfolio's weight multiplied by the risky portfolio's standard deviation.

Question 42

Which of the following statements about integrating environmental, social and governance (ESG) considerations into portfolio construction is *most accurate*?

- A Adding ESG constraints to the investment process will most likely reduce portfolio returns.
- B Clients pursuing active ownership must vote their shares themselves instead of through the manager.
- C A broad market index is unlikely to be an appropriate benchmark for a negatively screened portfolio.

Question 43

Which of the following groups consists *only* of cognitive errors?

- A Representativeness, framing, and overconfidence biases.
- B Confirmation, anchoring and adjustment, and availability biases.
- C Endowment, regret-aversion, and self-control biases.

Question 44

Westbury College buys a flood insurance policy for its campus buildings. For each flood claim, the college pays the first \$400,000 of damage itself, and the insurer pays the rest. Which description of this arrangement is *most accurate*?

- A Losses of any size are transferred to the insurer, so the college bears no flood risk.
- B The policy is a form of risk shifting, because it changes the distribution of the college's outcomes.
- C The first \$400,000 of each loss is self-insured, and the part above it is transferred.

PRACTICE QUESTIONS

Ethical and Professional Standards

Question 45

Anika Dorsey, a junior trader, goes along with her desk's habit of delaying the reporting of losing trades. She does so because her supervisor and colleagues expect it and her bonus depends on the desk's reported profits. Lapses like Dorsey's are *most likely* to be explained by:

- A situational influences.
- B a lack of technical training.
- C her personal character traits.

Question 46

After 18 years with a large Toronto asset manager, Lionel Batiste, CFA, sets up his own advisory firm in Port Aurelia, a jurisdiction whose securities rules are far weaker than both Canadian law and the CFA Institute Standards of Professional Conduct. Most of his clients are Canadian residents who moved their accounts to the new firm, and Canadian law continues to apply to his dealings with them. Batiste finds that Port Aurelia rules would let him skip several client disclosures that he always had to make in Canada. According to the Code and Standards, Batiste must follow:

- A Port Aurelia rules, provided he tells his Canadian clients where they differ from Canadian law.
- B the Code and Standards in every case, because as a charterholder he answers only to them.
- C whichever is stricter of the Code and Standards and Canadian law.

Question 47

Lucia Ferraz, CFA, manages the Tessaro Emerging Markets Equity Fund and routes the fund's trades to Blakemore Securities, which gives her soft dollar credits for buying research. In her own personal account, Ferraz holds several high-yield corporate bonds; the fund holds no bonds. She spends some of the soft dollars on reports about emerging-market companies and some on a credit newsletter that covers the high-yield bonds she owns personally. Her use of the soft dollars is:

- A a violation for both the equity research and the credit newsletter.
- B not a violation of the Code and Standards.
- C a violation for the credit newsletter but not for the equity research.

Question 48

Arjun Mehta, CFA, leads a team of credit analysts at a regional bank; none of the analysts is a CFA charterholder or candidate. Mehta has several times urged the bank's senior partners to adopt a compliance system to make sure that applicable laws and regulations are followed, but they have rejected each proposal. Mehta should *most appropriately*:

- A** take no further action, because by urging the bank to adopt a compliance system he has met his obligations.
- B** decline in writing to accept supervisory responsibility until an adequate compliance system is adopted.
- C** report the bank's inadequate system in a written complaint to the CFA Institute Professional Conduct Program.

Question 49

Priya Natarajan is an estate-planning attorney. Colin Ashby, CFA, a wealth manager, regularly sends his clients to her for estate work. In exchange, Natarajan prepares the wills and trust documents for Ashby's own family without charging him. Natarajan has just been awarded the CFA charter and become a member of CFA Institute. Under the Standards, Natarajan must:

- A** tell prospective clients referred by Ashby about the free legal work and its estimated value.
- B** tell prospective clients referred by Ashby about the free legal work, but not its value.
- C** stop doing legal work for Ashby's family without charge.

Question 50

Imogen Achterberg, CFA, runs portfolios for about 350 private clients and has little spare research capacity. Several of her largest clients ask her to add a 4% to 6% allocation to emerging market local-currency bonds, so she plans to base her bond selections on reports bought from an outside research provider that specializes in that sector. In judging whether the provider's research gives her a reasonable basis, the factor Achterberg should *least likely* rely on is:

- A** the assumptions behind the provider's analysis and how rigorous that analysis is.
- B** the high return its model portfolio earned last year.
- C** how timely the research is and whether its recommendations are objective and independent.

Answers and explanations

Answer key: 1. B · 2. B · 3. C · 4. A · 5. B · 6. B · 7. C · 8. A · 9. B · 10. B · 11. A · 12. C · 13. B · 14. B · 15. A · 16. A · 17. B · 18. C · 19. A · 20. B · 21. B · 22. A · 23. B · 24. C · 25. A · 26. C · 27. C · 28. B · 29. B · 30. A · 31. B · 32. B · 33. B · 34. B · 35. B · 36. B · 37. C · 38. B · 39. C · 40. A · 41. A · 42. C · 43. B · 44. C · 45. A · 46. C · 47. C · 48. B · 49. A · 50. B

Question 1 **Answer: B**

For a given stated annual rate, more frequent compounding raises the effective rate used to discount the cash flow. A higher effective discount rate means a smaller present value (and, correspondingly, a larger future value for a sum invested today). Monthly is the most frequent of the three conventions, so it produces the lowest present value.

Annual: $PV = 250,000/1.06 = €235,849.06$

Semiannual: $PV = 250,000/(1 + 0.06/2)^2 = 250,000/1.0609 = €235,648.98$

Monthly: $PV = 250,000/(1 + 0.06/12)^{12} = 250,000/1.061678 = €235,476.33$

Why the other options are wrong

- **A.** Annual compounding is the *least* frequent convention, so it produces the *highest* present value: €235,849.
- **C.** Semiannual compounding gives €235,649. That is lower than annual but still higher than monthly, because compounding twice a year gives a smaller effective discount rate than compounding 12 times.

Key takeaway More compounding periods mean a higher effective rate, so a higher FV and a lower PV.

Reading 1: Returns of Financial Assets and Instruments. Notes: credguild.com/cfa/level-1/notes/quantitative-methods/rate-of-return/

Question 2 **Answer: B**

A stock split must not change the value of a price-weighted index. The divisor is reset so that the new sum of prices, with the splitting stock at its post-split price, gives the same index value as before.

Index value before the split: $270/1.80 = 150.0$

Post-split price of the stock: $90/3 = \$30$, so the sum of prices falls by \$60 to \$210.

$$D_{new} = \frac{210}{150.0} = 1.40$$

Why the other options are wrong

- **A.** 0.60 treats every constituent as splitting 3-for-1 ($270/3 = 90$, and $90/150 = 0.60$). Only the one stock's price is divided by 3.
- **C.** 1.80 is the old divisor. If it were kept, the index would drop to $210/1.80 = 116.7$ purely because of the split.

Key takeaway Price-weighted index + split: recompute the sum with the new price, keep the index value, solve for the new (smaller) divisor.

Reading 3: Benchmarking Returns. Notes: credguild.com/cfa/level-1/notes/quantitative-methods/benchmarking-returns/

Question 3 **Answer: C**

The coefficient of variation is the sample standard deviation divided by the mean return. Because the returns are a sample, the standard deviation uses $n - 1$ in the denominator.

$$\text{Mean} = (19.0 + 7.5 - 9.6 + 4.9)/4 = 21.8/4 = 5.45\%$$

Year Return (Return - 5.45)²

1	19.0	183.60
2	7.5	4.20
3	-9.6	226.50
4	4.9	0.30
	Sum	414.61

$$s = \sqrt{\frac{414.61}{4 - 1}} = \sqrt{138.20} = 11.76\% \quad \frac{s}{\bar{X}} = \frac{11.76}{5.45} = 2.16$$

Why the other options are wrong

- **A.** 0.46 inverts the ratio: $5.45/11.76$.
- **B.** 1.87 uses the population standard deviation, $\sqrt{414.61/4} = 10.18\%$, giving $10.18/5.45$; the returns are to be treated as a sample.

Key takeaway Sample coefficient of variation: compute s with $n - 1$, then divide by the mean.

Reading 5: Statistical Characteristics of Asset Returns. Notes: credguild.com/cfa/level-1/notes/quantitative-methods/skewness-and-kurtosis/

Question 4 **Answer: A**

Under independence, the expected count for a cell is (row total $\times$ column total) / total number of observations. For energy issuers in technical default, use the Energy row total (125) and the Technical default column total (33).

$$E_{i,j} = \frac{\text{total for row } i \times \text{total for column } j}{\text{total number of observations}} = \frac{125 \times 33}{405} = \frac{4,125}{405} = 10.2$$

Why the other options are wrong

- **B.** About 14 (13.6) uses the Actual default column total (44) instead of the Technical default column total: $125 \times 44/405 = 13.6$.
- **C.** 16 is the *observed* number of energy issuers in technical default; the question asks for the count expected under independence.

Key takeaway Expected count = row total $\times$ column total / grand total.

Reading 7: Estimation and Hypothesis Testing. Notes: credguild.com/cfa/level-1/notes/quantitative-methods/null-hypothesis/

Question 5 Answer: B

Historical simulation is nonparametric: it uses actual past changes, so the scenarios automatically carry the fat tails, skewness and volatility clustering present in the data. A normal-distribution model tends to understate extreme outcomes.

Why the other options are wrong

- **A.** Reliance on the past is the main weakness of historical simulation; after a regime change, past data may no longer represent the future.
- **C.** Historical simulation can only reproduce outcomes that actually occurred in the lookback period; simulating conditions never seen before is an advantage of Monte Carlo simulation.

Key takeaway Historical simulation is nonparametric, captures fat tails and volatility clustering and is easy to explain; its limit is that it can only replay what actually happened.

Reading 9: Simulation of Financial Asset Prices and Returns. Notes: credguild.com/cfa/level-1/notes/quantitative-methods/simulation-of-financial-asset-prices-and-returns/

Question 6 Answer: B

Supervised learning works with labeled data: every input record comes with its known output, the machine learns how the outputs relate to the inputs, and the fitted model is then used on new data to forecast outcomes. Here the ratios are the inputs, the default outcome is the labeled output, and the model is applied to new applicants, so it is supervised learning.

Why the other options are wrong

- **A.** Unsupervised learning receives unlabeled inputs only, with no target outputs; the machine uncovers structure and patterns on its own (e.g., customer segmentation, anomaly detection). The lender does supply outputs (default or not).
- **C.** Reinforcement learning models learn by trial and error, improving through feedback in the form of rewards or penalties. No reward system is described here.

Key takeaway Labeled inputs and outputs: supervised. No outputs: unsupervised. Rewards and penalties: reinforcement.

Reading 11: Introduction to Financial Data Science. Notes: credguild.com/cfa/level-1/notes/quantitative-methods/machine-learning-in-finance/

Question 7 Answer: C

Historical evidence suggests credit cycles have been *longer* on average than business cycles, so a claim that they are shorter is inaccurate. The other two statements are accurate: loose lending in good times can inflate asset prices beyond plausible levels, and expansions and contractions tend to be stronger and deeper when they coincide with credit cycles.

Why the other options are wrong

- **A.** Accurate. Loose credit can fuel bubbles, as happened with subprime mortgages before the 2007–2009 financial crisis.
- **B.** Accurate. Credit availability rises in expansions and shrinks in slowdowns, which reinforces the business cycle rather than dampening it.

Key takeaway Credit cycles amplify business cycles, can cause bubbles, and have tended to last longer than business cycles.

Reading 13: Understanding Business Cycles. Notes: credguild.com/cfa/level-1/notes/economics/business-cycle/

Question 8 Answer: A

A credible central bank is one whose stated targets people believe. They then base their decisions (wages, nominal contracts, loan pricing) on the target inflation rate, which helps make the target self-fulfilling.

Why the other options are wrong

- **B.** Transparency means periodically disclosing the state of the economy (e.g., inflation reports) and the indicators used. It supports credibility, but the behavior described is the definition of credibility itself.
- **C.** Target independence means the central bank determines how inflation is computed, sets the target level and the horizon. It says nothing about whether the public believes the target.

Key takeaway Decisions based on the announced target = credibility. Regular inflation reports = transparency. Deciding the policy rate or the target = independence.

Reading 15: Monetary Policy. Notes: credguild.com/cfa/level-1/notes/economics/quantitative-easing/

Question 9 Answer: B

For the economy as a whole, the benefits of trade exceed the costs. The costs are concentrated among firms and workers in domestic industries that compete with imports, who may suffer lower profits or lost jobs.

Why the other options are wrong

- **A.** Not every group gains. Import-competing industries and their workers can lose, even though the gainers could in principle compensate them.
- **C.** Jobs lost in import-competing industries are offset by jobs created in export and growing industries, and over time retrained workers find new work. Economists do not conclude that trade's employment costs exceed its benefits.

Key takeaway Overall gains exceed losses, but the losses are concentrated in import-competing industries.

Reading 17: International Trade. Notes: credguild.com/cfa/level-1/notes/economics/comparative-advantage/

Question 10 Answer: B

The forward SGD/AUD rate is below spot, so the forward quote is a discount. With four-decimal quotes the difference of 0.0075 equals 75 points. The AUD (base currency) is at a forward discount, which means the SGD (price currency) is at a forward premium to the AUD.

$$F - S = 0.8795 - 0.8870 = -0.0075 = -75 \text{ points}$$

AUD: $0.8795/0.8870 - 1 = -0.85\%$ (discount); SGD: $0.8870/0.8795 - 1 = +0.85\%$ (premium).

Why the other options are wrong

- **A.** The forward rate is below spot, so the quote is a discount of 75 points. The SGD, as the price currency, is at a premium.
- **C.** Each point is 0.0001, so a 0.0075 difference is 75 points. The SGD is also at a premium, because the AUD buys fewer SGD forward than spot.

Key takeaway The sign of the points describes the base currency; the price currency moves the other way.

Reading 19: Exchange Rate Calculations. Notes: credguild.com/cfa/level-1/notes/economics/exchange-rate-calculations/

Question 11 Answer: A

A limited partnership combines general partners, who manage the business and have unlimited liability (the siblings), with limited partners, whose liability is limited to their investment (the cousins). That is the mix described.

Why the other options are wrong

- **B.** In a general partnership every partner is a general partner with unlimited liability, so the cousins could not cap their liability.
- **C.** A limited liability partnership has no general partner: every partner has a liability shield. It does not fit owners who choose to accept unlimited liability, and some US states restrict LLPs to designated professions such as law and accounting.

Key takeaway Mixed roles (managers with unlimited liability + passive investors with limited liability) point to a limited partnership.

Reading 20: Organizational Forms, Corporate Issuer Features, and Ownership. Notes: credguild.com/cfa/level-1/notes/corporate-finance/organizational-forms-corporate-issuer-features-and-ownership/

Question 12 Answer: C

Oversight of the corporate governance code and of board elections belongs to the nominating/governance committee. That committee also sets nomination policy for board candidates, implements the code of ethics and conflict-of-interest policies, and monitors compliance with laws, regulations and the company's governance policies. The audit committee's work centers on financial reporting and control.

Why the other options are wrong

- **A.** Overseeing financial reporting and the implementation of accounting policies is a core audit committee duty.
- **B.** Reviewing internal controls and the internal audit function is also an audit committee responsibility, as are recommending the external auditor and its pay (which shareholders then approve as an ordinary resolution) and proposing remedies based on audit findings.

Key takeaway Audit committee: financial reporting, accounting policies, internal controls and internal audit, and the choice and pay of the external auditor. Nominating/governance committee: governance code, board nominations and elections, ethics and compliance.

Reading 22: Corporate Governance: Conflicts, Mechanisms, Risks, and Benefits. Notes: credguild.com/cfa/level-1/notes/corporate-finance/principal-agent-problem/

Question 13 Answer: B

An expansion project that brings a new product into a new market requires forecasts of demand, revenues and expenses that are all highly uncertain. It therefore needs the most detailed analysis of the three.

Why the other options are wrong

- **A.** Replacing a usable machine to lower costs is a going concern project. It needs a cost comparison, but its cash flows are much easier to estimate than those of a new product in a new market.

- **C.** Insurer-mandated safety equipment is a regulatory/compliance project. The firm must do it, so the analysis centers on comparing alternative ways of complying.

Key takeaway Depth of analysis rises with uncertainty. Projects that maintain the business need little analysis, regulatory/compliance projects call for comparing alternative ways to comply, and expansion and other projects need the most detailed analysis.

Reading 24: Capital Investments and Capital Allocation. Notes: credguild.com/cfa/level-1/notes/corporate-finance/npv-vs-irr/

Question 14 **Answer: B**

Bundling prices several complementary products together as one package, usually to make the overall offer more profitable. Here the laptop, the premium keyboard, the high-resolution display and the three-year support contract are all sold for one combined base price. This is different from add-on pricing, where the base laptop would be sold at a normal margin and the upgrades and support offered separately, after the purchase decision, at high margins.

Why the other options are wrong

- **A.** Value-based pricing sets the price according to the value customers perceive in the product. The decision described here is about how the items are sold: complementary items that were sold separately are combined into a single package price, which is bundling.
- **C.** Dynamic pricing charges different prices depending on the time of day or day of the week (peak and off-peak pricing). Nothing in the decision depends on timing.

Key takeaway Complementary extras included in one package price are bundling. Extras sold separately after the purchase decision are add-on pricing.

Reading 26: Business Models. Notes: credguild.com/cfa/level-1/notes/corporate-finance/business-models/

Question 15 **Answer: A**

The marine-engine business is a separate major line of business, physically and operationally distinct, and it is held for sale under a formal disposal plan. It therefore qualifies as a discontinued operation. Its income or loss is reported separately, net of tax, after income from continuing operations, and the prior-period income statements presented are restated so that the discontinued business is shown separately in every year.

Placement of the two items:

Item	Where it is reported	Tax presentation
Restructuring charge (an unusual or infrequent item)	Within income from continuing operations	Pre-tax
Marine-engine business (discontinued operation)	After income from continuing operations	Net of tax

The measurement date is the date the formal plan was approved; the period until the sale closes is the phaseout period. Had a loss on the sale been expected, the held-for-sale assets would be written down at once to fair value less costs to sell. Operating results of the phaseout period are recognized as they occur, and future operating losses are not accrued in advance. An expected gain is not recognized until the sale is completed.

Why the other options are wrong

- **B.** A restructuring charge is an unusual or infrequent item, so it is reported before tax, within income from continuing operations. Only discontinued operations are shown net of tax below that line.

- **C.** An expected gain on disposal cannot be recognized until the sale is actually completed. Only an expected loss on disposal is recognized early, as a write-down of the held-for-sale assets to fair value less costs to sell. Operating losses of the phaseout period are not accrued in advance either; they are recognized as incurred.

Key takeaway Unusual or infrequent items: pre-tax, inside continuing operations. Discontinued operations: net of tax, below continuing operations, with prior periods restated. Analysts usually exclude discontinued operations when forecasting earnings.

Reading 28: Analyzing Income Statements. Notes: credguild.com/cfa/level-1/notes/financial-statement-analysis/analyzing-income-statements/

Question 16 **Answer: A**

The indirect method starts with net income and removes items that affected income without a matching operating cash flow. A loss on retiring debt early reduced net income, but the cash paid to retire the bonds is a financing outflow, so the loss is added back. Otherwise operating cash flow would be reduced by an amount that belongs in financing activities.

Why the other options are wrong

- **B.** A gain on the sale of a truck raised net income, but the full sale proceeds are an investing inflow. The gain is subtracted so that it is not counted in operating cash flow as well.
- **C.** A decrease in a deferred tax liability means income tax expense was lower than the tax payable for the period, so net income overstates the cash left after taxes. The decrease is subtracted from net income.

Key takeaway Indirect method: add back losses and subtract gains that arise from investing or financing transactions, such as asset sales and debt retirement. Add increases and subtract decreases in deferred tax liabilities.

Reading 30: Analyzing Statements of Cash Flows I. Notes: credguild.com/cfa/level-1/notes/financial-statement-analysis/analyzing-statements-of-cash-flows-i/

Question 17 **Answer: B**

Producers and dealers of commodities, such as agricultural and forest products, mineral ores and precious metals, may report inventory at net realizable value even when it exceeds historical cost. The exception applies under both IFRS and US GAAP. Gains and losses from changing market prices are recognized in the income statement, and the quoted price is used when an active market exists.

Why the other options are wrong

- **A.** Under US GAAP, inventory is carried at the lower of cost and net realizable value (lower of cost or market for LIFO and the retail method), so a rise in value above cost is not recognized. The commodity exception does not extend to an electronics retailer.
- **C.** Under IFRS, a write-down is reversed when net realizable value recovers, but the reversal is limited to the amount of the original write-down. The carrying amount can return to cost but cannot exceed it.

Key takeaway Inventory above historical cost is allowed for commodity producers and dealers (agricultural and forest products, minerals, precious metals) under both IFRS and US GAAP, with value changes in the income statement. A write-down reversal restores cost at most.

Reading 32: Analysis of Inventories. Notes: credguild.com/cfa/level-1/notes/financial-statement-analysis/lifo-vs-fifo/

Question 18 Answer: C

Required share-based compensation disclosures are the nature and key terms of the plans (grant date, vesting date, service period, settlement features), how grant-date fair value was determined, and the effect of the arrangements on earnings and financial position. The share price at the reporting date may help users but is not a required disclosure.

Why the other options are wrong

- **A.** The method used to determine grant-date fair value is a required disclosure, because the expense rests on it.
- **B.** Companies must disclose the effect of share-based transactions on both the income statement and the balance sheet.

Key takeaway Share-based pay disclosures: plan nature and terms, how grant-date fair value was set, effects on the income statement and balance sheet.

Reading 34: Topics in Long-Term Liabilities and Equity. Notes: credguild.com/cfa/level-1/notes/financial-statement-analysis/finance-lease-vs-operating-lease/

Question 19 Answer: A

Reporting quality is about whether the reports give decision-useful information that faithfully represents what happened. Earnings quality is about the underlying results: whether earnings are sustainable and adequate. A company can report a weak or one-off year accurately, so high-quality reporting can sit alongside low-quality earnings.

Why the other options are wrong

- **B.** Earnings smoothed through chosen estimates do not faithfully represent performance, so the reports would not be high quality.
- **C.** Delaying impairments overstates assets and earnings; that is a bias in the reporting, which rules out high reporting quality.

Key takeaway High reporting quality says the reports are faithful and useful; it does not guarantee that the earnings they show are sustainable or adequate.

Reading 36: Financial Reporting Quality. Notes: credguild.com/cfa/level-1/notes/financial-statement-analysis/financial-reporting-quality/

Question 20 Answer: B

Conservatism bias (also called anchoring) is the tendency to make only small adjustments, or none, to a prior forecast when new information becomes available. Voss's reluctance to update despite new announcements fits this bias.

Why the other options are wrong

- **A.** Confirmation bias means seeking out evidence that supports an existing view and discounting contrary evidence. The scenario does not say whether the news supports or contradicts her view, only that she will not update.
- **C.** Representativeness bias is the tendency to rely on known classifications of past information; nothing in the scenario involves classifying the company based on superficial similarity.

Key takeaway Reluctance to update a forecast after new information is conservatism bias (anchoring).

Reading 38: Introduction to Financial Statement Modeling. Notes: credguild.com/cfa/level-1/notes/financial-statement-analysis/pro-forma-financial-statements/

Question 21 **Answer: B**

Eligibility to vote is fixed on the record date: the custodian identifies the shareholder of record as of that date. A shareholder who sells after the record date but before the meeting remains eligible to vote the shares, so Solheim votes them.

Why the other options are wrong

- **A.** Mendes bought after the record date, so he is not the shareholder of record for this meeting and cannot vote these shares at it.
- **C.** A sale after the record date does not cancel the votes; the seller who held the shares on the record date keeps the right to vote them.

Key takeaway Voting eligibility follows the record date (often 30 or more days before the meeting). Ownership on the meeting day does not matter.

Reading 40: Equity Jurisdictions, Classes, and the Voting Process. Notes: credguild.com/cfa/level-1/notes/equities/equity-jurisdictions-classes-and-the-voting-process/

Question 22 **Answer: A**

Other things equal, the price should fall by the dividend on the ex-dividend date. Any decline beyond the dividend is attributed to the market, given that the stock has market-level risk and no company-specific news is mentioned.

Total decline = $48.00 - 45.60 = \$2.40$.

Due to the dividend: \$0.90. Due to the market: $2.40 - 0.90 = \$1.50$.

$$\text{market share of decline} = \frac{1.50}{2.40} = 62.5\%$$

Why the other options are wrong

- **B.** $37.5\% (0.90/2.40)$ is the part of the decline caused by the dividend. The question asks for the market's part.
- **C.** $3.3\% (1.50/45.60)$ expresses the market-driven dollar decline as a percentage of the share price. The question asks what fraction of the *decline* is due to the market.

Key takeaway Split the ex-date price drop into dividend and market pieces in dollars first, then express each as a share of the total drop.

Reading 42: Sources of Equity Returns. Notes: credguild.com/cfa/level-1/notes/equities/sources-of-equity-returns/

Question 23 **Answer: B**

Dividends are what every shareholder receives and reflect the position of an investor who cannot influence dividend policy, which is a **minority shareholder** perspective. An FCFE valuation reflects a **controlling shareholder**, who can decide how much of the free cash flow is paid out.

Why the other options are wrong

- **A.** This reverses the two models: the DDM uses the cash actually received (dividends), while FCFE represents the firm's theoretical capacity to pay dividends.
- **C.** Neither model assumes a volatile capital structure or heavy borrowing; each is built on the premise that the firm's financing mix stays steady. When the mix is volatile, FCFF is the preferred measure.

Key takeaway A DDM takes the minority view of cash actually paid; FCFE takes the controlling view of cash that could be paid. Both assume a stable capital structure.

Reading 44: Discounted Cash Flow (DCF) and Growth Models. Notes: credguild.com/cfa/level-1/notes/equities/discounted-cash-flow-dcf-and-growth-models/

Question 24 **Answer: C**

When most operating expenses grow faster than revenue, operating expenses take a larger share of each dollar of sales, so the operating profit margin is expected to fall. No calculation is needed.

Why the other options are wrong

- **A.** Gross profit margin depends only on revenue and COGS, and the other operating costs listed do not affect it. The stem does not say how fast COGS will grow, so a steady gross margin cannot be concluded.
- **B.** Net profit margin also depends on non-operating items such as interest income and expense, which are not given. A falling operating margin, if anything, pushes it down.

Key takeaway Compare growth rates. Revenue growing more slowly than operating costs means a lower operating margin; revenue growing faster means a higher one.

Reading 46: Financial Statement Forecasting in Equity Valuation. Notes: credguild.com/cfa/level-1/notes/equities/financial-statement-forecasting-in-equity-valuation/

Question 25 **Answer: A**

The serviceable market is the part of the total addressable market (TAM) that the company can actually reach, given its technical fit and geographic footprint. Both constraints must be applied to the TAM. Production capacity limits the obtainable market and plays no part here.

$$\begin{aligned}\text{Serviceable market} &= \text{TAM} \times \text{technical fit} \times \text{geographic reach} \\ &= \$2,400 \text{ million} \times 0.70 \times 0.55 = \$1,680 \text{ million} \times 0.55 = \$924 \text{ million}\end{aligned}$$

The \$300 million capacity cap defines the obtainable market, the share of the serviceable market Fennwick can realistically capture now.

Why the other options are wrong

- **B.** \$1,320 million applies only the 55% licensing constraint ($2,400 \times 0.55$) and ignores that the pumps work in only 70% of the market.
- **C.** \$1,680 million applies only the 70% technical fit ($2,400 \times 0.70$) and ignores the geographic (licensing) limit.

Key takeaway Start from the TAM, apply every reach constraint to get the serviceable market, then apply current scale to get the obtainable market. Capacity limits belong to the obtainable market.

Reading 48: Company Analysis: Past, Present, and Future. Notes: credguild.com/cfa/level-1/notes/equities/company-analysis-past-present-and-future/

Question 26 Answer: C

A longer lookback period gives a larger sample and a lower standard error of beta. However, most of the extra data now come from before Galloway's restructuring, when its business mix and leverage were different. The estimate will therefore describe past conditions rather than the company's future systematic risk.

Why the other options are wrong

- **A.** The standard error does fall with more observations, but a beta built largely on data from an obsolete business model and capital structure is a poorer guide to future risk.
- **B.** The mean-reversion adjustment is applied separately to the raw beta. With the usual fixed two-thirds weight on the raw beta, it does not change with the length of the lookback period.

Key takeaway A longer lookback period means less statistical noise but more stale data. After a major change in the business or capital structure, the stale data dominate, and a peer (pure-play) beta is usually the better choice.

Reading 50: The Capital Asset Pricing Model, Market Model, and Other Factor-Based Equity Models. Notes: credguild.com/cfa/level-1/notes/equities/the-capital-asset-pricing-model-market-model-and-other-factor-based-equity-models/

Question 27 Answer: C

Holding a coupon bond to maturity does not remove reinvestment risk, because every coupon received must still be reinvested at whatever rates then prevail. An investor focused on reinvestment risk would therefore not rely on this.

Why the other options are wrong

- **A.** A callable bond may be redeemed early, typically after rates have fallen, forcing reinvestment at lower yields. Preferring a noncallable bond reduces reinvestment risk, so she is likely to do this.
- **B.** Smaller coupons mean less cash to reinvest, so a low-coupon bond carries less reinvestment risk. She is likely to prefer it.

Key takeaway Reinvestment risk rises with coupon size and with call features; only a zero-coupon bond held to maturity avoids it.

Reading 52: Fixed-Income Cash Flows and Types. Notes: credguild.com/cfa/level-1/notes/fixed-income/zero-coupon-bond/

Question 28 Answer: B

Primary dealers act as counterparties when the central bank buys or sells government securities to carry out monetary policy. When the central bank buys securities, it pays cash into the banking system, which adds reserves and is expansionary.

Why the other options are wrong

- **A.** Selling government bonds drains reserves from the banking system. That is contractionary.
- **C.** Government spending and taxation are fiscal policy. The government sets them, and they are not executed through the central bank's primary dealers.

Key takeaway A central bank purchase of securities is expansionary, and a sale is contractionary. Primary dealers are the central bank's counterparties. Fiscal policy is not a central bank tool.

Reading 55: Fixed-Income Markets for Government Issuers. Notes: credguild.com/cfa/level-1/notes/fixed-income/treasury-bonds/

Question 29 Answer: B

The quoted margin (QM) is the fixed spread, set in the indenture, that is combined with the MRR to determine each coupon (it can be positive or negative). The discount (required) margin (DM) is the spread over the MRR at which the note would be priced at par on a reset date. Because the QM was fixed at issuance for the credit risk investors saw then, a DM below the QM means investors now demand less compensation, most likely because the issuer's credit quality has improved. With $QM > DM$, the note trades at a premium.

Why the other options are wrong

- **A.** A change in the reference rate flows into both the coupon ($MRR + QM$) and the required return ($MRR + DM$), so it does not open a gap between the two margins.
- **C.** When the discount margin is below the quoted margin, the coupon exceeds the required return and the note trades above par.

Key takeaway DM below QM points to improved credit and a premium price; DM above QM points to deteriorated credit and a discount.

Reading 58: Yield and Yield Spread Measures for Floating-Rate Instruments. Notes: credguild.com/cfa/level-1/notes/fixed-income/yield-and-yield-spread-measures-for-floating-rate-instruments/

Question 30 Answer: A

With positive convexity the price-yield curve is steeper at lower yields, so an equal-sized decline in yield produces a larger price gain than the price loss produced by an equal-sized rise in yield.

Why the other options are wrong

- **B.** Bond prices and yields move in opposite directions; convexity does not change that.
- **C.** Convexity describes the asymmetry between price gains and losses. It does not compare the rate of price change with the rate of yield change.

Key takeaway Positive convexity means bigger gains than losses for equal yield moves.

Reading 62: Yield-Based Bond Convexity and Portfolio Properties. Notes: credguild.com/cfa/level-1/notes/fixed-income/bond-convexity/

Question 31 Answer: B

Fiscal strength is measured by a low debt burden (debt/GDP) and good debt affordability (low interest/revenue). Varnholm's debt is a smaller share of its GDP, but its interest bill absorbs a larger share of its revenue, so the two measures point in different directions.

$$\text{Debt burden: Kestria} = \frac{780}{1,200} = 65.0\%, \quad \text{Varnholm} = \frac{290}{500} = 58.0\%$$

$$\text{Debt affordability: Kestria} = \frac{29.4}{420} = 7.0\%, \quad \text{Varnholm} = \frac{13.05}{145} = 9.0\%$$

Varnholm has the lower debt burden; Kestria has the lower (better) interest-to-revenue ratio.

Why the other options are wrong

- **A.** Kestria's debt/GDP (65%) is higher than Varnholm's (58%), so Kestria does not have the lighter debt burden.
- **C.** Varnholm's interest/revenue (9.0%) is higher than Kestria's (7.0%), so its debt affordability is worse.

Key takeaway Lower ratios are better for both fiscal strength measures, and the two can disagree, so compute both.

Reading 65: Credit Analysis for Government Issuers. Notes: credguild.com/cfa/level-1/notes/fixed-income/credit-analysis-for-government-issuers/

Question 32 **Answer: B**

During the lockout (revolving) period, ABS holders receive only interest and fees, and principal repaid by cardholders is used to buy new receivables so that the pool stays about the same size. An early (rapid) amortization provision ends this reinvestment and passes principal to investors sooner when that is needed to protect the credit quality of the securities, much like the acceleration of a loan when credit conditions worsen.

Why the other options are wrong

- **A.** Principal that cardholders repay during the lockout period is reinvested in new receivables, so faster repayment does not reach the ABS holders as principal. For the same reason, investors bear no prepayment risk during this period.
- **C.** A cap on the card rate limits the interest earned on the receivables. It can affect the interest available to investors, but it does not change when principal is repaid.

Key takeaway Credit card ABS: in the lockout (revolving) period investors get interest and fees only and principal is recycled into new receivables; in the amortization period principal is passed through; an early (rapid) amortization provision brings principal forward to protect credit quality.

Reading 68: Asset-Backed Security (ABS) Instrument and Market Features. Notes: credguild.com/cfa/level-1/notes/fixed-income/asset-backed-security-abs-instrument-and-market-features/

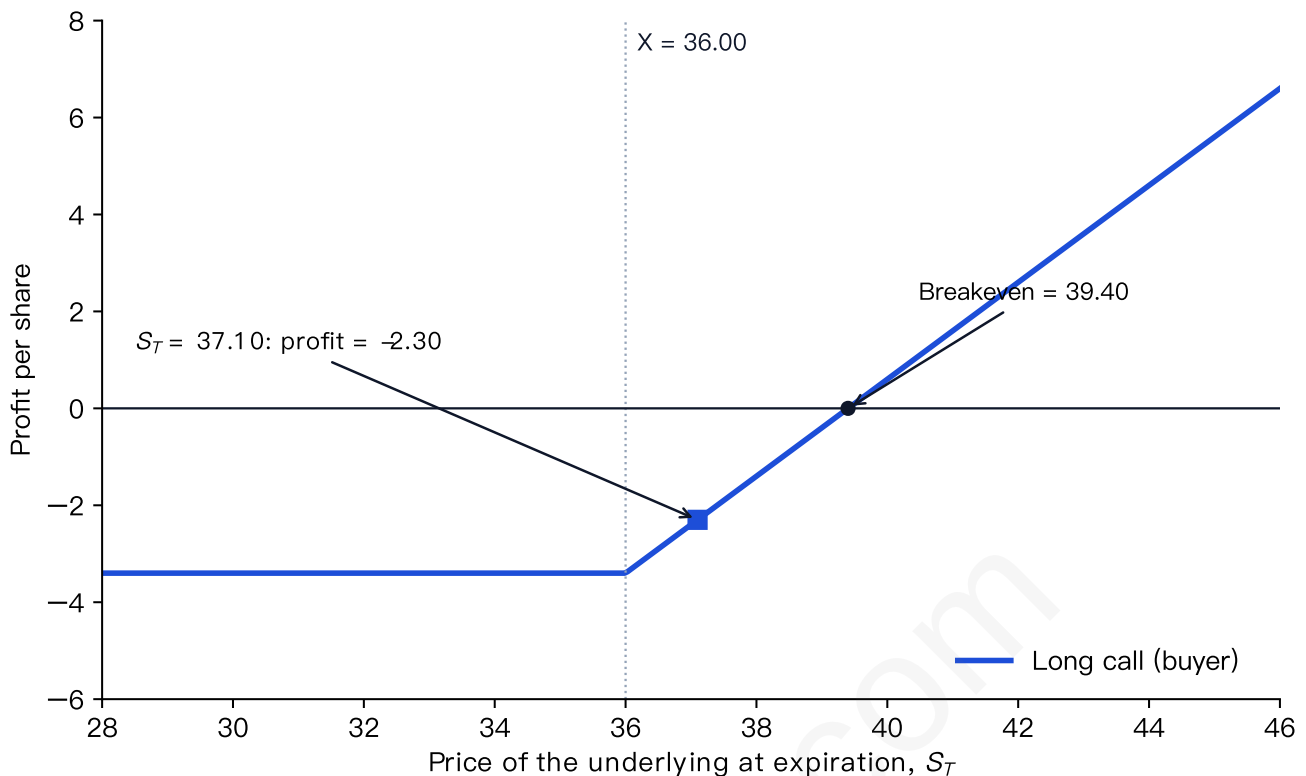
Question 33 **Answer: B**

At expiration the call is in the money by \$1.10, so Grant exercises it and recovers part of the premium. His net result is the exercise value minus the \$3.40 premium, a loss of \$2.30. The share price when he bought the call (\$38.90) does not affect the result.

$$c_T = \max(0, 37.10 - 36.00) = \$1.10$$

$$\text{Profit} = c_T - c_0 = 1.10 - 3.40 = -\$2.30$$

Breakeven = $X + c_0 = 36.00 + 3.40 = \39.40 ; the share price of \$37.10 is below it, so there is a loss.



Long call profit: exercise price \$36.00, premium \$3.40

Why the other options are wrong

- **A.** A loss of the full \$3.40 premium would occur only if the call expired out of the money. Here $S_T > X$, so exercising recovers \$1.10.
- **C.** +\$2.30 has the sign reversed: the \$1.10 exercise value is smaller than the \$3.40 premium paid, so the position loses money.

Key takeaway Exercise whenever $S_T > X$. Even below breakeven, exercising reduces the loss.

Reading 71: Forward Commitment and Contingent Claim Features and Instruments. Notes: credguild.com/cfa/level-1/notes/derivatives/forward-vs-futures/

Question 34 Answer: B

When the costs of holding the underlying exceed the benefits, the net cost of carry is positive, which raises the no-arbitrage forward price above the level it would have with no costs or benefits.

$$F_0(T) = [S_0 + PV_0(\text{cost}) - PV_0(\text{benefit})](1 + R_f)^T$$

For Q, $PV_0(\text{cost}) - PV_0(\text{benefit}) > 0$, so $F_Q > S_0(1 + R_f)^T = F_P$.

Why the other options are wrong

- **A.** A lower forward price would result if the benefits of holding (convenience yield) exceeded the costs.
- **C.** Holding costs and benefits do affect the forward price; they cancel only if they are equal in present value.

Key takeaway Net costs raise the forward price; net benefits lower it.

Reading 73: Arbitrage, Replication, and the Cost of Carry in Pricing Derivatives. Notes: credguild.com/cfa/level-1/notes/derivatives/arbitrage-replication-and-the-cost-of-carry-in-pricing-derivatives/

Question 35 Answer: B

Because every FRA in the series uses the same contract rate (the swap fixed rate), the individual FRAs will generally not be zero-value contracts: some have positive and some negative value. A swap entered at market terms has zero value at initiation, so the FRA values must add up to zero at that date.

Why the other options are wrong

- **A.** Zero-value FRAs would each need their own no-arbitrage contract rate. With a single common rate, individual values are generally non-zero; only their sum is zero.
- **C.** The zero-sum condition applies at initiation, when the swap is priced to have zero value. At expiration, the values reflect realized rates and need not sum to zero.

Key takeaway A swap is a series of off-market FRAs whose values sum to zero at inception.

Reading 76: Pricing and Valuation of Interest Rates and Other Swaps. Notes: credguild.com/cfa/level-1/notes/derivatives/interest-rate-swap/

Question 36 Answer: B

Solving put-call parity for the put gives $p = c - S + X(1 + R_f)^{-T}$: a long call, a short stock position and an investment of $PV(X)$ in the risk-free bond (a long bond position). At expiration the combination pays exactly $\max(0, X - S_T)$.

Why the other options are wrong

- **A.** Borrowing (short bond) has the wrong sign; the put equation adds $PV(X)$, so the bond is held long.
- **C.** This is the negative of the synthetic put (the position of someone who has sold a put synthetically).

Key takeaway Put side of parity: $p = c - S + PV(X)$, so hold a long call, short stock and a long bond.

Reading 78: Option Replication Using Put-Call Parity. Notes: credguild.com/cfa/level-1/notes/derivatives/put-call-parity/

Question 37 Answer: C

Under a deal-by-deal waterfall, carried interest is paid on each profitable exit on its own. The GP earns 20% of Ashby's \$21 million gain, and Corran's \$6 million loss does not reduce that fee. Without a clawback, the limited partners cannot recover the part of the fee that exceeds 20% of the fund's net gain.

Carried interest on Ashby: $0.20 \times (81 - 60) = \4.2 million. Corran lost $40 - 34 = \$6$ million, so no fee is paid on it.

Proceeds to LPs: $81 + 34 - 4.2 = \$110.8$ million.

$$\text{LP return} = \frac{110.8}{100} - 1 = 10.8\%$$

Whole-of-fund comparison: net gain = $115 - 100 = \$15$ million, fee = \$3.0 million, LP return = $112/100 - 1 = 12.0\%$. A clawback would return the $4.2 - 3.0 = \$1.2$ million difference.

Why the other options are wrong

- **A.** 15.0% is the return before any carried interest, $115/100 - 1$. The GP's 20% share of the profit on the Ashby exit must be deducted.

- **B.** 12.0% is the result under a whole-of-fund (European-style) waterfall, or under a deal-by-deal waterfall with a clawback, where the fee is 20% of the \$15 million net gain. The fund's terms use a deal-by-deal waterfall with no clawback.

Key takeaway Deal-by-deal: fee on each winning deal, losses ignored. Whole-of-fund: fee on the net gain across all deals. A clawback brings the deal-by-deal result back to the whole-of-fund result.

Reading 81: Alternative Investment Performance and Returns. Notes: credguild.com/cfa/level-1/notes/alternative-investments/hurdle-rate/

Question 38 **Answer: B**

Waste treatment facilities are utility assets, which are part of economic infrastructure. Schools and health care facilities are social infrastructure.

Why the other options are wrong

- **A.** Schools are social infrastructure.
- **C.** Health care facilities are social infrastructure.

Key takeaway Utilities (power, gas, water and waste treatment) are economic infrastructure.

Reading 83: Real Estate and Infrastructure. Notes: credguild.com/cfa/level-1/notes/alternative-investments/real-estate-and-infrastructure/

Question 39 **Answer: C**

Hedge funds are private pooled vehicles that face light regulation and give managers wide latitude over strategy, leverage and instruments, so the claim that they are tightly regulated and strategy-constrained is false. The other statements are accurate: access is limited to investors meeting high suitability standards, and although most holdings are liquid stocks and bonds, leverage and derivatives change the fund's risk profile, which is why managing the fund's risk exposure matters.

Why the other options are wrong

- **A.** Accurate. Hedge funds are sold privately to investors who satisfy wealth or sophistication requirements.
- **B.** Accurate. Leverage and derivatives can make the fund's risk and return behave very differently from the underlying debt and equity positions. For the same reason, owning mostly liquid assets does not make a hedge fund lower risk than, say, a private equity fund.

Key takeaway Hedge funds = private, lightly regulated, flexible. Liquid holdings do not equal low risk once leverage and derivatives are involved.

Reading 85: Hedge Funds. Notes: credguild.com/cfa/level-1/notes/alternative-investments/high-water-mark/

Question 40 **Answer: A**

Sample covariance is the sum of the products of the two stocks' deviations from their own means, divided by $T - 1$. The products sum to 24 over four observations, so the covariance is $24/3 = 8$.

Means: $\bar{R}_P = (9 + 3 + 12 + 8)/4 = 8\%$; $\bar{R}_Q = (14 + 6 + 10 + 10)/4 = 10\%$

Year $R_P - \bar{R}_P$ $R_Q - \bar{R}_Q$ **Product**

1	1	4	4
2	-5	-4	20

Year	$R_P - \bar{R}_P$	$R_Q - \bar{R}_Q$	Product
3	4	0	0
4	0	0	0

$$\text{Cov}_{P,Q} = \frac{4 + 20 + 0 + 0}{4 - 1} = \frac{24}{3} = 8$$

Why the other options are wrong

- **B.** 14 is the sample variance of Stock P $(1 + 25 + 16 + 0)/3$. The question asks for the covariance between P and Q.
- **C.** 24 is the sum of the cross-products before dividing by $T - 1 = 3$.

Key takeaway Covariance: multiply paired deviations, sum, divide by $T - 1$. Don't confuse it with one stock's variance.

Reading 87: Portfolio Risk and Return: Part I. Notes: credguild.com/cfa/level-1/notes/portfolio-construction/modern-portfolio-theory/

Question 41 Answer: A

The variance of the new portfolio is $w^2\sigma_P^2$, not $w\sigma_P^2 + (1 - w)(0)$. The standard deviation, rather than the variance, is the weighted average of the two assets' standard deviations (zero for the risk-free asset and σ_P for the risky portfolio).

Example with $w = 0.5$, $\sigma_P = 20\%$: variance = $0.5^2 \times 0.04 = 0.01$ (standard deviation 10%), whereas a weighted average of variances would give $0.5 \times 0.04 = 0.02$ (standard deviation 14.1%).

Why the other options are wrong

- **B.** Accurate: $E(R_C) = wE(R_P) + (1 - w)R_f$.
- **C.** Accurate: because the risk-free asset has zero standard deviation and zero correlation, $\sigma_C = w\sigma_P$.

Key takeaway Standard deviation is linear in the risky weight; variance is not.

Reading 88: Portfolio Risk and Return: Part II. Notes: credguild.com/cfa/level-1/notes/portfolio-construction/systematic-vs-unsystematic-risk/

Question 42 Answer: C

When negative screening removes companies or industries from the investment universe, a broad market index no longer reflects what the manager could hold. A more appropriate benchmark is an index that also excludes the companies or industries such investors commonly avoid.

Why the other options are wrong

- **A.** The effect of ESG constraints on returns is uncertain: a narrower universe and research costs may reduce returns, but good governance and avoiding ESG-related risks may increase them.
- **B.** Investors using engagement/active ownership may vote their shares themselves or direct the manager to vote according to specified ESG factors; either is possible, and the point is to clarify which.

Key takeaway A negatively screened portfolio is better judged against a benchmark that excludes the same companies; ESG effect on returns is uncertain; active ownership voting can be done by the client or delegated.

Reading 90: Basics of Portfolio Planning and Construction. Notes: credguild.com/cfa/level-1/notes/portfolio-construction/basics-of-portfolio-planning-and-construction/

Question 43 Answer: B

Confirmation bias is a belief perseverance bias, and anchoring and adjustment and availability are information-processing biases. All three are therefore cognitive errors.

Why the other options are wrong

- **A.** Representativeness and framing are cognitive errors, but overconfidence is classified as an emotional bias.
- **C.** Endowment, regret-aversion and self-control biases are all emotional biases.

Key takeaway Cognitive = belief perseverance (conservatism, confirmation, representativeness, illusion of control, hindsight) + information processing (anchoring and adjustment, mental accounting, framing, availability). The six emotional biases are loss aversion, overconfidence, self-control, status quo, endowment and regret aversion.

Reading 91: The Behavioral Biases of Individuals. Notes: credguild.com/cfa/level-1/notes/portfolio-construction/the-behavioral-biases-of-individuals/

Question 44 Answer: C

Insurance is a form of risk transfer: the insurer takes on the losses it covers in return for premiums. Because the college pays the first \$400,000 of every claim, it bears that layer of each loss itself, which is self-insurance. The arrangement therefore combines risk transfer with self-insurance.

Why the other options are wrong

- **A.** The deductible means the college still bears every loss up to \$400,000, so it keeps part of its flood risk.
- **B.** Risk shifting changes the distribution of outcomes mainly through derivative contracts, such as forwards, swaps or options. Buying insurance is classified as risk transfer.

Key takeaway Insurance transfers risk; a deductible is a layer of self-insurance; derivatives used to alter outcomes are risk shifting.

Reading 92: Introduction to Risk Management. Notes: credguild.com/cfa/level-1/notes/portfolio-construction/value-at-risk/

Question 45 Answer: A

Situational influences are pressures external to the decision maker, such as social pressure from colleagues, loyalty to a supervisor, and the lure of money or prestige. They are considered a more important determinant of the ethical quality of behavior than internal (personal) traits.

Why the other options are wrong

- **B.** The problem is not a lack of skill or knowledge; Dorsey is responding to pressure and incentives.
- **C.** People tend to overemphasize the role of their own personal traits in ethical behavior; external influences are considered the stronger driver.

Key takeaway Peer pressure, loyalty and money are situational influences, which are considered a stronger driver of ethical lapses than personal traits.

Reading 93: Ethics and Trust in the Investment Profession. Notes: credguild.com/cfa/level-1/notes/ethics/ethics-and-trust-in-the-investment-profession/

Question 46 Answer: C

Under Standard I(A) Knowledge of the Law, when applicable laws and the Code and Standards differ, members must follow the strictest requirement: the law where they live, the law where they do business (including the law governing their clients' accounts), or the Code and Standards. Because Canadian law still governs his dealings with Canadian clients, Batiste must meet the stricter of Canadian law and the Code and Standards.

Why the other options are wrong

- **A.** Moving to a less strict jurisdiction does not lower the standard. Disclosing the differences to clients does not allow a member to follow a weaker rule.
- **B.** The Code and Standards are a minimum, not the only rule. If applicable law (here, Canadian law) is stricter on a point, the member must comply with that law as well.

Key takeaway When several rule sets apply, follow the strictest one. Moving offshore never lowers the bar.

Reading 95: Guidance for Standard I: Professionalism. Notes: credguild.com/cfa/level-1/notes/ethics/knowledge-of-the-law/

Question 47 Answer: C

Soft dollars come from client brokerage, which is an asset of the client. Under Standard III(A) Loyalty, Prudence, and Care, they must be used to benefit the client, for example by paying for research that assists in managing client accounts. Emerging-market equity research helps manage the fund and is acceptable; a credit newsletter on bonds that only Ferraz owns benefits her personally and is a violation.

Why the other options are wrong

- **A.** Research on emerging-market companies is directly relevant to the fund's holdings, so buying it with the fund's soft dollars is appropriate.
- **B.** The credit newsletter serves only Ferraz's personal bond holdings; paying for it with client brokerage uses client assets for her own benefit.

Key takeaway Ask whether the soft-dollar purchase benefits the client. Research that helps manage client accounts does; research on the manager's personal holdings does not.

Reading 97: Guidance for Standard III: Duties to Clients. Notes: credguild.com/cfa/level-1/notes/ethics/duties-to-clients/

Question 48 Answer: B

Standard IV(C) Responsibilities of Supervisors covers everyone under a member's authority, whether or not they are members or candidates. When a weak or missing compliance system makes proper supervision impossible, the member must decline the supervisory role in writing until adequate procedures are in place.

Why the other options are wrong

- **A.** Urging the firm is necessary but not sufficient; without an adequate system Mehta cannot discharge his duties, so he should decline the responsibility in writing.
- **C.** The Standard does not call for a complaint to CFA Institute about the firm; the appropriate response is to decline supervisory responsibility in writing.

Key takeaway Without an adequate compliance system, the member declines supervisory responsibility in writing until one exists.

Reading 98: Guidance for Standard IV: Duties to Employers. Notes: credguild.com/cfa/level-1/notes/ethics/duties-to-employers/

Question 49 Answer: A

The free legal work Natarajan performs for Ashby is a benefit paid to another person in return for recommending her services, so it is a referral fee under Standard VI(C). Now that she is a CFA Institute member, she must disclose the arrangement to the prospective clients Ashby refers, including the nature of the benefit and an estimate of its value, so they can judge any partiality in Ashby's recommendation.

Why the other options are wrong

- **B.** Disclosing that the arrangement exists is not enough: the Standard expects the nature and the estimated value of the benefit to be disclosed so the client can weigh it.
- **C.** Standard VI(C) does not prohibit referral arrangements; it requires that they be disclosed. Ending the arrangement is not required.

Key takeaway Referral consideration can be non-cash (free services, gifts, discounts). Disclose its nature and estimated value.

Reading 100: Guidance for Standard VI: Conflicts of Interest. Notes: credguild.com/cfa/level-1/notes/ethics/conflicts-of-interest/

Question 50 Answer: B

Under Standard V(A) Diligence and Reasonable Basis, a member who uses third-party research must make reasonable and diligent efforts to judge whether it is sound. The review looks at the assumptions used, how rigorous the analysis is, how timely the research is, and how objective and independent its recommendations are. One year of high returns on a model portfolio is not one of these tests and says little about whether the research itself is sound.

Why the other options are wrong

- **A.** Reviewing the assumptions and the rigor of the analysis is a core part of judging whether third-party research is sound.
- **C.** Timeliness, objectivity and independence are among the qualities a member checks before relying on outside research.

Key takeaway Judge third-party research by its assumptions, rigor, timeliness, objectivity and independence; a recent high return is not a test of its soundness.

Reading 102: Application of the Code and Standards: Level I. Notes: credguild.com/cfa/level-1/notes/ethics/application-of-the-code-and-standards-level-i/

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