DUMPSARENA

Chartered Financial Analyst Level 1

Test Prep CFA-Level-1

Version Demo

Total Demo Questions: 209

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Topic Break Down

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QUESTION NO: 1

An investment recommendation can be disseminated to clients via each of the following methods, EXCEPT:

A. through a brief update report.

B. by addition to a recommended list.

C. by oral communication.

D. through an initial detailed research report.

E. by deletion from a recommended list.

F. all of these answers are acceptable methods.

ANSWER: F

Explanation:

“all of these answers are acceptable methods.

” is correct because the CFA Institute Standards of Professional Conduct permit members and candidates to communicate investment recommendations through several formats, provided they deal fairly with all clients and prospective clients. A recommendation does not have to take the form of a full written research report every time. It may be issued in an initial detailed report, a shorter update, an addition to or deletion from a recommended list, or an oral communication. The key professional obligation is that the communication process is fair: members must make reasonable efforts to disseminate material changes in recommendations to clients in an equitable manner, rather than selectively favoring certain clients. The format should also be appropriate to the firm’s normal communication practices and should allow clients to receive the information they are entitled to receive. Accordingly, every listed dissemination method can be used for an investment recommendation, so there is no individual method that is excluded. This principle is addressed under the CFA Institute Standard III(B), Fair Dealing. See the CFA Institute Code of Ethics and Standards of Professional Conduct and the Institute’s professional conduct resources.

QUESTION NO: 2

A researcher has decided to create a frequency distribution using the following classes:

30-45, 45-60, 60-75, 76 & over.

The selection of this set involves which of the following? I. non-overlapping classes. II. open-ended classes.

III. equal class intervals

A. III only

B. I only

C. I & III only

D. II & III only

E. II only

ANSWER: E

Explanation:

II only is correct because “76 & over” is an open-ended class. An open-ended class, also called an open class interval, specifies only one boundary: in this case, the lower boundary is 76, while no maximum value is supplied. Consequently, every observation at least as large as 76 is assigned to this final category, regardless of how high its value may be. Open-ended intervals are useful when the data range has no meaningful or known upper limit, or when very large values are best grouped into a single tail category rather than separated into additional intervals. In frequency-distribution design, the

presence of even one category with an unspecified endpoint means that the distribution includes open-ended classes. This conclusion follows directly from the wording of the final class and does not require any assumptions about the observations themselves. The NIST Statistical Handbook discusses constructing frequency distributions and class intervals in its histogram-bin selection guidance. A clear discussion of grouped frequency distributions and class intervals is also available from OpenStax Introductory Statistics.

QUESTION NO: 3

What rate should be used to estimate the potential return on this bond?

A. the YTM.

B. 12.00%.

C. 10.34%.

D. the YTC.

ANSWER: D

Explanation:

The YTC. is the appropriate rate for estimating the potential return when the relevant expected cash-flow outcome is that the issuer will redeem a callable bond on its call date. Yield to call is the internal rate of return based on the bond's current market price, its coupon payments received only until the first applicable call date, and the call price paid at redemption. It therefore matches the investor's expected holding-period cash flows when a call is anticipated.

This measure is especially relevant when interest rates have declined since issuance and a bond's coupon is attractive relative to prevailing market rates. In that setting, the issuer has an economic incentive to call the bond and refinance at a lower rate. An investor should consequently estimate potential return using the contractual call scenario rather than assuming that all scheduled coupons will be paid through final maturity. CFA Institute's fixed-income curriculum identifies yield-to-call as a yield measure for callable bonds and emphasizes that callable-bond valuation must reflect the issuer's embedded call right. See CFA Institute Fixed-Income refresher readings and Investor.gov's corporate-bond overview.

QUESTION NO: 4

You combine three assets (A, B, and C) into a portfolio. What is the expected return and standard deviation of the portfolio? You will put 25% of your funds into Asset A with an expected return of 5% and a standard deviation of zero, 50% of your funds into Asset B with an expected return of 10% and a standard deviation of 5%, and 25% of your funds into Asset C with an expected return of 5% with a standard deviation of zero.

A. .075 .025

B. .025 .05

C. .075 .075

D. .05 .10

ANSWER: A

Explanation:

The correct result is **.075 .025**, meaning an expected portfolio return of 7.5% and a portfolio standard deviation of 2.5%. Expected return is the weighted average of the individual expected returns: (25% × 5%) + (50% × 10%) + (25% × 5%) = 7.5%. This calculation does not require any correlation assumptions because expected returns combine linearly using portfolio weights.

For risk, Assets A and C each have zero standard deviation, so their returns are certain under the facts given. Consequently, each asset's variance is zero and every covariance term involving either asset is also zero, because covariance contains that asset's standard deviation. The portfolio therefore has risk only from the 50% allocation to Asset B. Its contribution to

portfolio standard deviation is 50% × 5% = 2.5%. Equivalently, portfolio variance is ($0.50^2 \times 0.05^2$), and taking the square root produces 0.025. This reflects the core portfolio-statistics distinction between a weighted expected return and variance, which is calculated before converting back to standard deviation. See the CFA Institute's Portfolio Risk and Return refresher and the CFA Program Curriculum.

QUESTION NO: 5

What is the Net Present Value of this series of annual cash flows using an interest rate of 20% per year: Year 0: <$6,000>, Year 1: $4,000, Year 2: $3,000, Year 3: $2,000, Year 4: $1,000? (Note that the <> are used to indicate a negative number).

A. $1,077.49

B. $1,056.33

C. $589.11

D. $1,134.39

E. $981.21

ANSWER: B

Explanation:

The correct net present value is **$1,056.33**. Net present value discounts each future cash flow back to time zero at the required annual return and then combines those present values with the initial investment. Using a 20% annual discount rate, the present values of the Year 1 through Year 4 inflows are $4,000 ÷ 1.20 = $3,333.33; $3,000 ÷ 1.20^2 = $2,083.33; $2,000 ÷ 1.20^3 = $1,157.41; and $1,000 ÷ 1.20^4 = $482.25. These discounted inflows total $7,056.33. The Year 0 cash flow is an immediate outflow of $6,000, so it is already stated in time-zero dollars and is not discounted. Therefore, NPV = −$6,000 + $7,056.33 = $1,056.33. A positive NPV means that, at a 20% required return, the project's expected cash inflows exceed the initial cost in present-value terms. This follows the standard NPV framework used in capital-budgeting decisions. See OpenStax: Net Present Value Method and CFA Institute: Capital Budgeting.

QUESTION NO: 6

During a period of rising inventory prices, compared with a company using LIFO, a company using FIFO will most likely report:

A. lower cost of goods sold.

B. higher ending inventory.

C. higher net income.

D. higher operating cash flow.

E. lower income taxes payable.

ANSWER: A B C

Explanation:

Under FIFO, the oldest and lower-cost inventory units are assigned to cost of goods sold when prices are rising. Therefore, FIFO produces lower cost of goods sold, higher ending inventory, and higher net income than LIFO, assuming the same tax rate and all other factors are held constant.

Because FIFO generally results in higher taxable income when prices are rising, it also generally results in higher taxes paid and lower operating cash flow than LIFO under U.S. GAAP. The cash-flow effect is the opposite of the reported net-income effect.

QUESTION NO: 7

A _____ level is the price range at which the technician would expect a substantial increase in demand for the stock. A _____ level is the price range at which the technician would expect an increase in the supply of the stock to cause any price increase to reverse abruptly.

A. base; ceiling

B. support; resistance

C. sell; buy

D. bottom; top

ANSWER: B

Explanation:

support; resistance is correct. In technical analysis, a support level is a price area at which buying interest is expected to strengthen substantially. As a stock price approaches that area, investors who view the security as attractively priced may purchase it, increasing demand and tending to slow or halt a decline. Support is therefore commonly treated as a potential floor or zone beneath the market price, rather than necessarily as one precise price point.

A resistance level is a price area at which selling pressure is expected to increase. When a rising price reaches that zone, holders may be more willing to sell and traders may take profits or initiate sales. This increased supply can absorb buying demand and cause an upward movement to stall or reverse abruptly. The two concepts are foundational tools for interpreting charts, identifying possible turning points, and establishing price levels for trade planning. They are probabilistic market observations, not guarantees that prices will stop or reverse at a particular level. See the CFA Institute's overview of technical analysis and the CFI explanation of support and resistance.

QUESTION NO: 8

_____ refers to measurable characteristics, such as household size, age structure, occupation, gender, and marital status.

A. Characgraphics

B. Socialgraphics

C. Psychographics

D. Demographics

ANSWER: D

Explanation:

Demographics is correct because it describes objective, measurable characteristics of a population. Common demographic variables include age, sex or gender, marital status, household composition and size, educational attainment, occupation, income, and geographic location. Analysts use these attributes to identify the composition of a market and to assess likely demand for products, services, housing, or investment opportunities. In real estate analysis, for example, household size, age structure, and occupations can help an analyst evaluate whether a property's location, unit mix, and amenities align with the needs of likely tenants or buyers. These measures can also be tracked over time to identify population shifts that may affect demand. The U.S. Census Bureau identifies age, sex, household type, marital status, and employment-related characteristics among the demographic topics it measures, illustrating that these are observable population attributes rather than attitudes or preferences. The distinction matters because demographic data supplies a factual profile of who comprises a market, which can then be used alongside behavioral or preference-based information in market analysis. See the U.S. Census Bureau's population topics and its American Community Survey subject definitions.

QUESTION NO: 9

Bell Brothers has $3,000,000 in sales. Its fixed costs are estimated to be $100,000, and its variable costs are equal to fifty cents for every dollar of sales. The company has $1,000,000 in debt outstanding at a before-tax cost of 10 percent. If Bell Brothers' sales were to increase by 20 percent, how much of a percentage increase would you expect in the company's net income?

A. 15.66%

B. 18.33%

C. 19.24%

D. 23.08%

E. 21.50%

ANSWER: D

Explanation:

23.08% is correct because the percentage change in net income can be estimated using the degree of total leverage, which combines operating leverage from fixed operating costs and financial leverage from interest expense. At the current sales level, variable costs are $1,500,000, so the contribution margin is $1,500,000. Fixed costs are $100,000 and annual interest expense is $100,000 ($1,000,000 multiplied by 10%), producing income before taxes of $1,300,000. Degree of total leverage is therefore contribution margin divided by income before taxes: $1,500,000 / $1,300,000 = 1.1538. A 20% increase in sales is expected to increase net income by 20% multiplied by 1.1538, or 23.08%. The same result follows from calculating the new income before taxes directly: sales rise to $3,600,000, variable costs rise proportionately to $1,800,000, and fixed costs and interest remain unchanged. Income before taxes consequently rises from $1,300,000 to $1,600,000, an increase of $300,000 / $1,300,000 = 23.08%. This approach assumes a constant tax rate, so the percentage change in net income equals the percentage change in pretax income. Leverage and cost-structure analysis are core corporate-issuer concepts covered in the CFA Program curriculum; see also CFA Institute's Corporate Issuers refresher readings.

QUESTION NO: 10

A financial analyst with Mally, Feasance & Company is examining shares of Microscam International. Assume the following information:

Retention Rate: 72%

EPS: $2.16

Growth Rate: 21%

Discount Rate: 14.50%

Tax Rate: 35%

Using this information, what is the ROE for Microscam International?

A. 5.88%

B. 15.12%

C. 56.88%

D. 33.40%

E. The answer cannot be calculated from the information provided.

F. 29.17%

ANSWER: F

Explanation:

29.17% is correct because the sustainable-growth relationship links a company's growth rate, retention rate, and return on equity: *g = ROE × retention rate*. The retention rate is the proportion of earnings reinvested in the business rather than paid out as dividends. Rearranging the relationship gives *ROE = g ÷ retention rate*. Substituting the stated figures produces ROE = 0.21 ÷ 0.72 = 0.291666..., or 29.17% when rounded to two decimal places. This calculation interprets the supplied 21% growth rate as the sustainable growth rate and assumes that the firm's return on equity and retention policy are applicable to that growth relationship. EPS is not required because both growth and retention are already supplied as rates. Likewise, the discount rate and tax rate are inputs that may be relevant in other valuation or return calculations, but they do not enter the sustainable-growth identity used here. CFA Institute's curriculum materials describe sustainable growth as a function of profitability and the proportion of earnings retained, while ROE measures the return generated on shareholders' equity. See CFA Institute's discussion of return measures and Investopedia's sustainable growth rate formula.

QUESTION NO: 11

In a statement of cash flows done using the indirect method all of the following would be included as cash flows from investing activities except for:

A. purchase of fixed assets.

B. sale of fixed assets.

C. all would be included as cash flows from investing activities.

D. gain on sale of equipment.

ANSWER: D

Explanation:

gain on sale of equipment. is correct because a gain is not itself an investing cash flow. Under the indirect method, the cash flow statement begins operating cash flows with net income, which already includes the accounting gain recognized in profit or loss. Since that gain increased net income without representing an operating cash receipt, it is removed from the operating-cash-flow reconciliation, generally by subtracting it from net income. The actual cash received from selling the equipment is reported separately as an investing cash inflow; that reported amount is the sale proceeds, rather than the gain. The gain is simply the difference between those proceeds and the equipment's carrying amount at disposal. This treatment prevents the gain from being counted once in net income and again as part of cash received from the sale. IAS 7 identifies cash payments to acquire, and cash receipts from sales of, property, plant, and equipment as investing cash flows, while the indirect method adjusts profit or loss for non-operating items and related accrual effects. See IFRS: IAS 7 Statement of Cash Flows and SEC example of an indirect-method statement of cash flows.

QUESTION NO: 12 - (SIMULATION)

SIMULATION

Bob Kramer, CFA, manages money for high net worth clients. Kramer creates an investment portfolio tailored to his clients' specific needs using mutual funds. Kramer is considering the following Emerging Market Fund and uses a live year time frame. Exhibit 1 details the Emerging Market Fund's fees and expenses.

Exhibit 1 - Fees and expenses for Emerging Market Fund

	Class A	Class B	Class C
Sales charge	2%		
Deferred sales charge		5% first year declining 1% per year	2% for the initial three years
Distribution fee	0.40%	0.50%	0.50%
Management fee	0.40%	0.50%	0.50%
Other expenses	0.20%	0.50%	0.60%

Kramer expects the Emerging Market Fund to earn 12% per year.

Select the class of Emerging Market Fund shares that are most appropriate for Kramer's clients.

ANSWER: See the explanation for the answer

Explanation:

Select Class A shares.

Over the five-year holding period, Class A has the lowest ongoing annual expenses:

Class A: `0.40% + 0.40% + 0.20% = 1.00%`
Class B: `0.50% + 0.50% + 0.50% = 1.50%`
Class C: `0.50% + 0.50% + 0.60% = 1.60%`

Using the expected 12% gross annual return, approximate net annual returns are 11.0%, 10.5%, and 10.4%, respectively. Although Class A has a 2% initial sales charge, its lower annual expenses more than offset that charge over five years. Class B also has a deferred sales charge at the end of year 5, while Class C's higher annual costs make it less attractive.

Therefore, the most appropriate share class for Kramer's clients is **Class A**.

QUESTION NO: 13

Using the infinite period Dividend Discount Model, what is the value of a stock with the following characteristics?

Current dividend $6

Long term dividend growth rate 8%

Required rate of return 12%

A. $96.00

B. $75.00

C. $14.25

D. $48.00

E. $162.00

F. $72.00

ANSWER: E

Explanation:

The correct value is **$162.00**. The infinite-period Dividend Discount Model, also called the Gordon growth model, estimates the present value of all future dividends when dividends are expected to grow indefinitely at a constant rate. Its formula is $V_0 = D_1 / (r - g)$, where D_1 is the dividend expected one period from now, r is the required rate of return, and g is the constant dividend growth rate. Because the stated $6 dividend is the current dividend, it must first be grown by 8% to obtain next year's expected dividend: $D_1 = \$6 \times 1.08 = \$6.48$. The required return less the growth rate is 12% − 8% = 4%, or 0.04. Thus, the estimated intrinsic value is $6.48 / 0.04 = $162.00. This model is applicable because the required return exceeds the perpetual growth rate, producing a finite value, and because the question explicitly specifies use of the infinite-period DDM. CFA Institute's overview of equity valuation methods is available at CFA Institute: Equity Valuation Concepts and Basic Tools. For a formula reference, see Corporate Finance Institute: Gordon Growth Model.

QUESTION NO: 14

If you owe a debt of $1,000 today and also owe $500 in 24 months, what single payment could you make 12 months from today that would pay off both of these debts, if interest is assessed at 8% per year, compounded monthly?

A. $751.62

B. $1,426.30

C. $1,500.00

D. $1,544.68

E. $2,041.93

ANSWER: D

Explanation:

$1,544.68 is the single payment at month 12 that is financially equivalent to both obligations. Because the quoted annual rate is compounded monthly, the periodic monthly rate is 8% ÷ 12, or 0.6667% per month. A valid focal date is 12 months from today, the date on which the proposed single payment will be made.

The $1,000 owed today must be carried forward for 12 monthly compounding periods: $\$1,000 \times (1 + 0.08/12)^{12} = \$1,083.00$ (rounded). The $500 obligation due at month 24 must be discounted back 12 months to the focal date: $\$500 \div (1 + 0.08/12)^{12} = \$461.68$ (rounded). Adding the two values at the same date gives $1,083.00 + $461.68 = $1,544.68.

This applies the time value of money principle that cash flows can be combined only after they have been translated to a common point in time using the applicable periodic interest rate. The result therefore fully settles the current $1,000 debt and the separate $500 debt due one year later. See the CFA Institute's overview of time value of money and the SEC Investor.gov explanation of compound interest.

QUESTION NO: 15

A fixed-income portfolio manager at Franken Investments is considering adding a security to his existing portfolio. The bond, issued by KDJ Company, has an option adjusted spread (OAS) equal to 0.23% and a Z-spread equal to 0.15%. The manager is concerned that his portfolio is dominated by callable bonds and will only accept new securities if they contain no call options. Should the portfolio manager add the KDJ bond to his portfolio?

A. Yes, the negative option cost implies the bond is putable.

B. No, the positive option cost implies the bond is callable.

C. No, the negative option cost implies the bond is callable.

ANSWER: A

Explanation:

Yes, the negative option cost implies the bond is putable. Option cost is conventionally calculated as the Z-spread minus the option-adjusted spread: 0.15% − 0.23% = −0.08%, or −8 basis points. The OAS measures the constant spread after explicitly incorporating the value and exercise-contingent cash flows of embedded options through an interest-rate model. In contrast, a Z-spread is calculated by discounting the bond's stated cash flows as though those cash flows are fixed and contain no option-related uncertainty.

When the calculated option cost is negative, the embedded option increases the bond's value to the investor relative to an otherwise comparable option-free bond. This is the economic signature of an investor-favorable put option: if rates rise and the bond's value falls, the holder may have the right to sell the bond back to the issuer at the specified put price. A putable bond therefore contains no call option and meets the manager's stated restriction against adding callable securities. The manager should add KDJ's bond, subject to the usual independent assessment of credit, liquidity, and portfolio-fit considerations. See Investopedia's overview of option-adjusted spread and its explanation of the Z-spread.

QUESTION NO: 16

Which of the following statements is most correct?

A. If it could be demonstrated that a clientele effect exists, this would suggest that firms could alter their dividend payment policies from year to year to take advantage of investment opportunities without having to worry about the effects of changing dividends on capital costs.

B. Each of these statements are false.

C. If a company raises its dividend by an unexpectedly large amount, the announcement of this new and higher dividend is generally accompanied by an increase in the stock price. This is consistent with the bird-in-the-hand theory, and Modigliani and Miller used these findings to support their position on dividend theory.

D. If the dividend irrelevance theory (which is associated with the names Modigliani and Miller) were exactly correct, and if this theory could be tested with "clean" data, then we would find, in a regression of dividend yield and capital gains, a line with a slope of -1.0.

E. The tax preference and bird-in-the-hand theories lead to identical conclusions as to the optimal dividend policy.

ANSWER: D

Explanation:

If the dividend irrelevance theory (which is associated with the names Modigliani and Miller) were exactly correct, and if this theory could be tested with "clean" data, then we would find, in a regression of dividend yield and capital gains, a line with a slope of -1.0.

Under dividend irrelevance, a firm's distribution decision does not change shareholder wealth or the required return on equity, assuming frictionless capital markets and a fixed investment policy. For a given total shareholder return, dividend yield and expected capital-gains yield are substitutes: increasing the portion of return paid as dividends reduces the portion retained in price appreciation by an equal amount. Expressed as a regression of capital-gains yield on dividend yield, this one-for-one trade-off produces a slope of negative one. "Clean" data is important because real-world taxes, transaction costs, information conveyed by dividend changes, agency considerations, and investor clienteles can affect observed returns and obscure the theoretical relation. The result follows directly from the foundational dividend-irrelevance proposition developed by Franco Modigliani and Merton Miller. Their original analysis explains that, subject to its assumptions, payout policy does not affect firm value or the shareholder's overall return. See the original article, Dividend Policy, Growth, and the Valuation of Shares, and the CFA Institute's discussion of corporate issuers and payout policy.

QUESTION NO: 17

Under what condition would a firm report cash, or cash equivalents as a long-term asset?

A. When a firm maintains less than its' minimum target cash balance.

B. When funds are set aside for a specific long-term purpose such as plant expansion.

C. All of these answers.

D. When a firm has an under-funded pension obligation.

E. None of these answers.

ANSWER: B

Explanation:

Funds are set aside for a specific long-term purpose such as plant expansion because cash and cash equivalents that are restricted or earmarked for uses beyond the normal operating cycle are not available to meet the entity's current obligations. Financial-statement presentation distinguishes assets available for current operations from amounts whose use is contractually or internally designated for a future long-term purpose. For example, cash reserved for a major plant expansion, a debt sinking fund, or another long-term project may be presented outside current assets when it will not be used or released within the near term. The key consideration is the restriction on availability and the expected timing of use, rather than the asset's inherent liquidity: cash is highly liquid, but it is not a current asset for classification purposes when it cannot be used to settle current liabilities. This classification helps analysts evaluate a firm's immediately available liquidity without overstating the cash resources accessible for day-to-day operations. CFA Institute curriculum coverage of financial reporting and analysis emphasizes assessing restrictions and classifications when interpreting liquidity measures and balance-sheet items. See the CFA Program curriculum overview and IAS 1 guidance on presentation and current/non-current classification.

QUESTION NO: 18

Liliana works for Bear Funds, a brokerage firm. Bear has a policy of not allowing its employees to trade in securities in which it has large holdings. A list of such securities is circulated on a daily basis to the employees. Liliana knows of this restriction. However, a few days ago, she happened to purchase a few shares of a firm that are on Bear's restricted list. The total value of the purchase was less than $500. Liliana should

A. none of these answers.

B. report the transaction to the compliance department and see how best to unwind the transaction.

C. inform her immediate supervisor about it and accept any sanctions.

D. not do anything, because the activity is of negligible size.

ANSWER: B

Explanation:

"report the transaction to the compliance department and see how best to unwind the transaction." is correct because Liliana has made a personal trade in a security specifically restricted by her employer. The firm's restricted list is an important control designed to prevent conflicts between employee trading and the firm's duties to clients, including the duty to give client transactions priority. Because Liliana knew of the restriction, the small monetary amount does not eliminate the need to disclose and remediate the violation. Materiality is not determined solely by the dollar value of a personal transaction when a clear firm policy and a conflict-control mechanism are involved.

Prompt reporting to compliance enables Bear Funds to document the transaction, evaluate whether any client interests were affected, and determine the appropriate corrective action. Compliance may direct Liliana to reverse or otherwise unwind the trade, subject to applicable market and legal considerations, and may impose internal sanctions under the firm's procedures. This response supports the CFA Institute Standards of Professional Conduct concerning loyalty to clients and appropriate management of conflicts arising from personal investing. CFA Institute's standards emphasize that members and candidates must place client interests before their own and comply with employer policies that protect those interests. See the CFA Institute Code of Ethics and Standards of Professional Conduct and its guidance on Standards of Practice.

QUESTION NO: 19

If alpha = .05, what is the probability of making a Type I error?

A. None of these answers

B. 20/20

C. 0

D. 19/20

E. 1/20

ANSWER: E

Explanation:

The correct answer is **1/20**. In hypothesis testing, the significance level, denoted by alpha (α), is defined as the probability of making a Type I error. A Type I error occurs when an analyst rejects a null hypothesis that is actually true. Therefore, if α = 0.05, the probability of this error is 0.05, or 5%.

Expressed as a fraction, 0.05 equals 5/100, which simplifies to 1/20. Thus, selecting a 5% significance level means accepting a one-in-twenty probability of incorrectly rejecting a true null hypothesis over repeated applications of the same testing procedure. In CFA Level I hypothesis-testing questions, alpha should be interpreted as the preselected maximum probability of a Type I error, rather than as the probability that the null hypothesis itself is true or false. The level is chosen before evaluating the test statistic and p-value. For further background on hypothesis-test terminology, see the CFA Institute hypothesis testing refresher reading and the NIST overview of Type I and Type II errors.

QUESTION NO: 20

If the Fed starts following a contractionary monetary policy:

I. the U.S. trade deficit with other countries rises.

II. the unemployment rate increases.III. real interest rates increase.

A. I, II & III

B. I & III

C. II only

D. II & III

E. the U.S. trade deficit with other countries rises.
II. the unemployment rate increases.III. real interest rates increase.

ANSWER: A

Explanation:

I, II & III is correct. A contractionary monetary policy reduces the growth of the money supply or raises policy interest rates. In the short run, tighter monetary conditions raise real interest rates, making borrowing and current spending relatively less attractive. The resulting reduction in interest-sensitive consumption and business investment lowers aggregate demand and output relative to what it otherwise would have been. As firms respond to weaker demand by reducing production and hiring, the unemployment rate increases.

Higher relative U.S. interest rates also tend to attract foreign capital into U.S. financial assets. Increased demand for dollar-denominated assets causes the U.S. dollar to appreciate. A stronger dollar makes U.S. goods more expensive to foreign buyers and foreign goods cheaper to U.S. buyers. Thus, exports tend to decline and imports tend to rise, increasing the trade deficit (or reducing a trade surplus), other things held constant. This is the standard monetary-policy transmission mechanism tested in introductory macroeconomics and CFA Level I economics. The Federal Reserve discusses how monetary policy affects financial conditions and economic activity in its monetary policy overview; exchange-rate effects on trade are also summarized by the IMF's exchange-rate primer.

QUESTION NO: 21

Two events, A and B, are mutually exclusive if:

A. P(A and B) = P(A) + P(B)

B. P(A and B) = 0

C. P(A and B) = P(A) P(B)

D. P(A and B) = 1

ANSWER: B

Explanation:

P(A and B) = 0 is correct because mutually exclusive events have no outcomes in common: occurrence of one event precludes occurrence of the other. The intersection, denoted by “A and B” or A ∩ B, is therefore the empty set. Because an empty set has probability zero, the defining probability relationship is P(A ∩ B) = 0.

This principle is especially useful when applying the addition rule. If events are mutually exclusive, the probability that either event occurs is the sum of their individual probabilities: P(A or B) = P(A) + P(B). There is no overlap probability to subtract because simultaneous occurrence is impossible. For example, in one draw from a standard deck, drawing a heart and drawing a club are mutually exclusive events; a single card cannot belong to both suits. Accordingly, the probability of drawing both a heart and a club on that draw is zero.

This definition and its use in probability calculations are covered in OpenStax’s discussion of mutually exclusive events and in the NIST probability reference.

QUESTION NO: 22

Which of the following is/are required by AIMR-PPS with regards to creation and maintenance of composites?

I. Performance must be measured at least quarterly.

II. Combining of assets-only returns with assets-plus-cash returns is prohibited.III. Convertible and hybrid securities cannot be mixed with money-market securities in performance calculations.

A. I and III only

B. I, II and III

C. I only

D. I and II only

E. Performance must be measured at least quarterly.
II. Combining of assets-only returns with assets-plus-cash returns is prohibited.III. Convertible and hybrid securities cannot be mixed with money-market securities in performance calculations.

ANSWER: D

Explanation:

The correct selection is **“I and II only.”** The AIMR Performance Presentation Standards (PPS), which preceded the Global Investment Performance Standards (GIPS), required firms to apply consistent, disciplined procedures when constructing composites and calculating the returns reported for them. A quarterly measurement requirement supports timely and sufficiently frequent performance reporting, allowing a composite’s reported results to reflect the portfolios and valuation information relevant to each reporting period. Quarterly frequency was a core minimum convention in the historical PPS framework.

The prohibition on combining assets-only returns with assets-plus-cash returns also supports the fundamental PPS objective of comparability. An assets-only return measures the managed assets excluding cash, whereas an assets-plus-cash return incorporates cash in the return base. These approaches can produce materially different results, even for similar underlying

investments. Keeping the methods separate ensures that a composite represents portfolios calculated on a consistent basis and that the reported composite performance is meaningful to prospective clients.

The PPS framework was an important predecessor to today's GIPS standards, which continue to emphasize consistent composite construction and calculation methodologies. See the GIPS Standards and the CFA Institute's GIPS standards resources.

QUESTION NO: 23

A bank savings account offers a savings rate of 3.5% per year, compounded annually. How long would it take for an investment of $710 to grow to $1,000?

A. 9 years

B. 8 years

C. 11 years

D. 10 years

ANSWER: D

Explanation:

10 years is correct. With annual compounding, the future-value relationship is $FV = PV(1 + r)^n$, where FV is $1,000, PV is $710, r is 0.035, and n is the number of years. Substituting these values gives $1,000 = 710(1.035)^n$. Solving with logarithms, $n = \ln(1,000 / 710) / \ln(1.035)$, which is approximately 9.96 years. Because the available responses are stated in whole years, 10 years is the appropriate selection. It also aligns with the annual-compounding timing convention: after 10 complete annual periods, the balance is approximately $\$709 \times 1.035^{10} = \$1,001.19$, so the account has reached the $1,000 target. This calculation applies the standard time value of money principle that a present amount grows exponentially when interest is compounded at a fixed periodic rate. For additional background on compound-interest calculations, see Investor.gov's explanation of compounding and CFA Institute's Time Value of Money refresher.

QUESTION NO: 24

An economic researcher publishes evidence that the consensus inflation estimation for the following year has no correlation with the actual inflation level the year before. The estimation error is often very large, but does not display a pattern. Which of the following theories would this evidence support?

A. rational ignorance

B. mean reversion

C. heteroskedasticity

D. monetarist theory

E. rational expectations hypothesis

F. adaptive expectations hypothesis

ANSWER: E

Explanation:

The **rational expectations hypothesis** is supported because it holds that economic agents form forecasts using all relevant information available to them, including past inflation, current economic conditions, and anticipated policy changes. Under this framework, forecast errors can certainly be large when unexpected shocks occur, such as supply disruptions or abrupt changes in monetary conditions. However, those errors should not be systematically predictable from information that was already available when the forecast was made.

The reported absence of correlation between the next year's consensus inflation estimate and the preceding year's actual inflation, together with estimation errors that have no identifiable pattern, is consistent with unbiased forecast errors. In other words, forecasters may be surprised, but they are not repeatedly making errors in a predictable direction based on past inflation. This is the central empirical implication of rational expectations: errors behave as random surprises rather than reflecting a persistent, exploitable pattern. The concept is summarized by the Library of Economics and Liberty's overview of rational expectations and is also discussed in the IMF's explanation of economic expectations.

QUESTION NO: 25

With regard to a theoretical Treasury yield curve constructed with the bootstrapping method:

A. every point on the curve is constructed by utilizing current on-the-run Treasury yields of various maturities.

B. the yield for most maturities used to construct the Treasury yield curve are observed yields rather than interpolated yields.

C. any yield on the Treasury yield curve that is not one of the on-the-run maturities is only an approximation for that maturity.

ANSWER: C

Explanation:

"Any yield on the Treasury yield curve that is not one of the on-the-run maturities is only an approximation for that maturity." is correct. A bootstrapped Treasury curve starts with market prices or yields from a limited set of actively traded, recently issued Treasury securities and uses their cash flows to infer zero-coupon (spot) rates. The available securities do not generally supply an exact market observation for every possible maturity date. Consequently, a curve requires interpolation or other curve-fitting methods to estimate rates between the maturities directly supported by the underlying instruments. These estimated points are theoretical values: they represent the curve's best implied rate for a given maturity under the selected bootstrapping and interpolation conventions, rather than independently observed market yields for securities maturing at precisely those dates.

This distinction is important in fixed-income analysis because the resulting spot curve is used to discount individual cash flows consistently, price coupon-bearing bonds, and derive forward rates. Its usefulness depends on transforming a discrete set of Treasury market observations into a continuous term structure. The U.S. Treasury describes published curve rates as estimates derived from market quotations, while CFA fixed-income analysis treats bootstrapping as the process of extracting spot rates from coupon bond prices. See the U.S. Treasury daily yield curve information and CFA Institute's fixed-income valuation refresher.

QUESTION NO: 26

3 months ago, Fred Hoyle received the AIMR letter, informing him that he had passed Level II exam. He has now registered for Level III exam. Fred can do which of the following?

I. Put "CFA-II" on his business card, as long as it is in a smaller font than his name.

II. Mention on his resume that he has passed Level II exam of the CFA program.

III. Mention that he is a Level III candidate in the CFA program.

IV. Inform his clients of his professional progress and assure them of his quality as an analyst.

A. I, II and III only

B. II and IV only

C. I, II and IV only

D. II and III only

E. Put "CFA-II" on his business card, as long as it is in a smaller font than his name.
II. Mention on his resume that he has passed Level II exam of the CFA program.
III. Mention that he is a Level III candidate in the CFA program.
IV. Inform his clients of his professional progress and assure them of his quality as an analyst.

ANSWER: D

Explanation:

"II and III only" is correct because Fred may accurately communicate both his completed examination progress and his current status in the CFA Program. CFA Institute permits candidates to state that they have passed a particular CFA examination level, provided the statement is factual and does not imply that passing an examination confers the CFA designation or membership rights. Therefore, including that he has passed the Level II examination on a résumé is an appropriate, objective description of his accomplishment.

He has also registered for the next examination level, so he may truthfully describe himself as a Level III candidate in the CFA Program. Candidate-status references must be limited to actual enrollment and participation in the program and must not overstate what candidacy represents. These communications accurately identify Fred's examination progress without implying that he is already a CFA charterholder or that the program has certified his investment ability. This approach follows the CFA Institute requirements governing references to the CFA Program, candidacy, examination completion, and the CFA designation. See the CFA Institute Code of Ethics and Standards of Professional Conduct and CFA Institute's guidance on the CFA charter and program.

QUESTION NO: 27

How many deposits of $250 a month, beginning next month, are needed before an account has $200,000 in it, assuming it had a balance of $0 at the beginning and that interest is 6% per year, compounded monthly?

A. 319.48

B. No solution/Error

C. 322.69

D. 800.00

E. 66.79

ANSWER: C

Explanation:

The correct result is **322.69** monthly deposits. Because the first $250 deposit is made next month, the cash flows form an ordinary annuity: each payment is made at the end of a monthly compounding period. The monthly interest rate is 6% ÷ 12, or 0.5% per month. The future-value equation for an ordinary annuity is $FV = PMT \times [((1 + r)^N - 1) \div r]$. Substituting the stated values gives $200{,}000 = 250 \times [((1.005)^N - 1) \div 0.005]$. Dividing by 250 produces an accumulation factor of 800. Solving for N gives $N = \ln(5) \div \ln(1.005) = 322.69$ months. On a financial calculator, use I/Y = 0.5, PV = 0, PMT = 250, and FV = −200,000 (or use the opposite sign convention for the cash flows), then compute N. The fractional result means the target is reached during the 323rd monthly period; however, the mathematical number of deposits required to exactly equal the specified future value is 322.69. See the ordinary-annuity future-value relationship in OpenStax Principles of Finance and calculator guidance from CFA Institute.

QUESTION NO: 28

Calculate the earnings per share (EPS) for the plastic bead industry using the information below.

The industry's EPS is closest to:

A. $110.

B. $22.

C. $54.

D. $40.

ANSWER: D

Explanation:

The industry's EPS is **$40.** The calculation begins with estimated revenue on a per-share basis of $250 and applies the 60% EBITDA margin, producing EBITDA per share of $150 ($250 × 0.60). Depreciation of $50 and interest expense of $20 are then deducted to move from EBITDA to earnings before taxes: $150 − $50 − $20 = $80. Applying the stated 50% tax rate gives after-tax earnings of $40 per share: $80 × (1 − 0.50) = $40.

This approach follows the earnings-flow logic used in financial statement analysis: EBITDA reflects operating performance before depreciation, amortization, interest, and taxes; deductions for depreciation and interest produce pretax income; and taxes are applied to determine income available to common shareholders. Because each input is stated on a per-share basis (or converted to a per-share amount through the margin), the resulting after-tax earnings amount is EPS directly, with no additional division by shares outstanding needed. CFA Institute's overview of the CFA Program includes financial statement analysis among its core investment-analysis topics: CFA Program Curriculum. For the standard definition and presentation of earnings per share, see IAS 33: IAS 33 Earnings per Share.

QUESTION NO: 29

Given that the expected dividend payout ratio for a firm is 0.25, its expected profit margin is 0.12, its expected financial leverage is 0.95, its expected return on capital is 1.26, its expected EBIT is $403, and its expected growth rate is 8%, what is the firm's expected total asset turnover?

A. 1.39

B. 0.939

C. 1.02

D. Not enough information

E. 0.839

ANSWER: B

Explanation:

0.939 is the intended expected total asset turnover. Under the sustainable-growth relation, expected growth equals the earnings retention rate multiplied by expected return on equity. The dividend payout ratio is 0.25, so the retention rate is 1 − 0.25 = 0.75. Therefore, expected return on equity is 0.08 ÷ 0.75 = 0.1067, or approximately 0.107 when rounded.

The DuPont relation expresses return on equity as profit margin multiplied by total asset turnover multiplied by financial leverage. Solving for total asset turnover gives 0.107 ÷ (0.12 × 0.95) = 0.9386, which rounds to 0.939. Using unrounded values throughout produces approximately 0.936; the displayed result follows the question's intermediate rounding convention. Expected return on capital and expected EBIT are not needed once the growth rate, payout ratio, profit margin, and financial leverage are supplied for this calculation. This application combines the sustainable-growth framework with the DuPont decomposition of return on equity. See Investopedia's sustainable growth rate overview and its DuPont analysis overview.

QUESTION NO: 30

Rollins Corporation is constructing its MCC schedule. Its target capital structure is 20 percent debt, 20 percent preferred stock, and 60 percent common equity. Its bonds have a 12 percent coupon, paid semiannually, a current maturity of 20 years, and sell for $1,000. The firm could sell, at par, $100 preferred stock, which pays a 12 percent annual dividend, but flotation costs of 5 percent would be incurred. Rollins' beta is 1.2, the risk-free rate is 10 percent, and the market risk premium is 5 percent. Rollins is a constant growth firm, which just paid a dividend of $2.00, sells for $27.00 per share, and has a growth rate of 8 percent. The firm's policy is to use a risk premium of 4 percentage points when using the bond-yield-plus-risk- premium method to find k(s). The firm's net income is expected to be $1 million, and its dividend payout ratio is 40 percent. Flotation costs on new common stock total 10 percent, and the firm's marginal tax rate is 40 percent. What is Rollins' WACC once it starts using new common stock financing?

A. 16.6%

B. 13.6%

C. 14.1%

D. 16.9%

E. 16.0%

ANSWER: C

Explanation:

14.1% is correct because the question specifies that Rollins has begun financing with newly issued common stock, so the common-equity component must include the 10% flotation cost. Using the constant-growth dividend-discount model, the next dividend is $2.00 × 1.08 = $2.16. Net proceeds per new share are $27.00 × (1 − 0.10) = $24.30. Therefore, the cost of new common equity is ($2.16 / $24.30) + 8% = 16.89%.

The bonds sell at par, so their before-tax yield is the 12% coupon rate. Applying the 40% marginal tax rate gives an after-tax debt cost of 12% × (1 − 0.40) = 7.20%. Preferred stock has a $12 annual dividend and produces net proceeds of $100 × (1 − 0.05) = $95, yielding a preferred cost of $12 / $95 = 12.63%. Applying the target weights produces WACC = (20% × 7.20%) + (20% × 12.63%) + (60% × 16.89%) = 14.10%, rounded to 14.1%. This follows the standard treatment of after-tax debt and flotation-adjusted new equity in WACC calculations. See CFA Institute: Cost of Capital and OpenStax: Weighted Average Cost of Capital.

QUESTION NO: 31

A high-growth firm is expected to have a dividend growth of 10% for the next 2 years. It is then expected to stabilize at 4%. The firm has just paid a dividend of $2 and investors require a rate of return of 14%. The market price of the firm's stock is:

A. $17.98

B. $21.26

C. $19.68

D. $23.46

E. $23.16

ANSWER: E

Explanation:

$23.16 is the correct intrinsic value under a two-stage dividend discount model. The dividend just paid is D_0 = $2.00. Applying 10% growth for each of the next two years gives D_1 = $2.20 and D_2 = $2.42. Beginning in year 3, dividends grow perpetually at 4%, so D_3 = $2.42 × 1.04 = $2.5168. At the end of year 2, the stock's continuing value is calculated with the Gordon growth model: $P_2 = D_3/(r - g)$ = $2.5168/(0.14 − 0.04) = $25.168. The present value is therefore the discounted value of the two explicit dividends plus the discounted continuing value: $2.20/1.14 + $2.42/$(1.14)^2$ + $25.168/$(1.14)^2$ = $23.16, after rounding. This approach correctly uses the first stable-growth dividend, D_3, in the terminal-value calculation and discounts every future cash flow to time zero. CFA Institute's discussion of equity valuation tools is available at Equity Valuation: Concepts and Basic Tools. For the constant-growth model framework, see Dividend Discount Models.

QUESTION NO: 32

Cricketers, Inc. recently purchased Baseball Corp. for $3 million using debt financing. Analysts are in agreement that the fair value for Baseball's assets was around $2.7 million and that the overpayment was for strategic reasons. When Cricketers' accountants record the transaction, they must record:

A. an asset of $2.7 million an equity of $0.3 million and a debt of $2.7 million.

B. an asset of $3.3 million an equity of $0.3 million and a debt of $3 million.

C. an asset of $2.7 million, a goodwill of $0.3 million and a debt of $3 million.

D. an asset of $2.7 million, a premium of $0.3 million and a debt of $3 million.

ANSWER: C

Explanation:

The correct accounting entry recognizes the acquired identifiable assets at their fair value of $2.7 million and recognizes the remaining $0.3 million as goodwill, with $3 million in debt reflecting the financing used for the acquisition. Goodwill arises in a business combination when the consideration transferred exceeds the fair value of the identifiable net assets acquired. In this case, the strategic value that prompted Cricketers, Inc. to pay more than the estimated fair value is captured as purchased goodwill rather than as an immediate expense or a generic “premium.” Thus, the combined recognized assets total $3 million: $2.7 million of identifiable acquired assets plus $0.3 million of goodwill. The liability side reflects the $3 million debt financing, preserving the accounting equation in the simplified facts given. Both IFRS and U.S. GAAP require goodwill from an acquisition to be recognized as an asset at the acquisition date; it is not amortized under these frameworks but is subsequently subject to impairment testing. See IFRS 3’s acquisition-method requirements at IFRS 3 Business Combinations and the FASB’s guidance overview at ASC Topic 805, Business Combinations.

QUESTION NO: 33

Direct investment in commercial real estate is most likely characterized by:

A. relatively low liquidity.

B. potential rental income.

C. property-specific management requirements.

D. continuous exchange-based price discovery.

ANSWER: A B C

Explanation:

relatively low liquidity, **potential rental income**, and **property-specific management requirements** are correct. Direct real estate typically cannot be sold as quickly as publicly traded securities, and transactions can involve significant search, legal, financing, and closing costs. Investors may receive rental income, while also bearing responsibilities related to leasing, maintenance, capital improvements, and property management.

Direct real estate values are generally not continuously observable in an active public market. Appraisals are commonly used, which can cause reported returns to appear smoother than returns on frequently traded assets. CFA Institute provides an overview of alternative investments at CFA Institute: Alternative Investments.

QUESTION NO: 34

In order to value an asset, one needs

A. the stream of expected future cash flows.

B. the stream of expected future cash flows and the ROE of the asset.

C. the stream of expected future cash flows, and the book value of the asset.

D. the book value of the asset, and its ROE.

E. the stream of expected future cash flows and the required rate of return on the asset.

ANSWER: E

Explanation:

To value an asset using the fundamental present-value approach, an analyst needs the stream of expected future cash flows and the required rate of return on the asset. Expected cash flows identify the amounts expected to be received by the asset's owner, including items such as dividends, coupon payments, principal repayment, or other distributable cash flows. The required rate of return reflects the time value of money and the compensation investors require for bearing the asset's risk. Each expected cash flow is discounted at that required return, and the sum of the resulting present values is the asset's estimated intrinsic value. This is the central valuation principle used throughout CFA Program material: value is based on the present value of expected future benefits, rather than solely on accounting measures or a stated return measure. The option text has been clarified from "expected returns" to "expected future cash flows," because a return is generally a rate or percentage outcome, whereas valuation requires forecast cash-flow amounts to calculate a present value. See the CFA Institute's overview of the CFA Program curriculum at CFA Program Curriculum and its introductory material on valuation at Discounted Dividend Valuation.

QUESTION NO: 35

In 1994, Butler Inc. issued $10 par value common stock for $25 per share. No other common stock transactions occurred until March 31, 1996, when Butler acquired some of the issued shares for $20 per share and retired them. Which of the following statements correctly states an effect of this acquisition and retirement?

A. Retained earnings is increased.

B. Additional paid-in capital is decreased.

C. Additional paid-in capital is increased.

D. 1996 net income is increased.

E. 1996 net income is decreased.

ANSWER: B

Explanation:

Additional paid-in capital is decreased. Each share was originally issued for $25, consisting of $10 credited to common stock at par and $15 credited to additional paid-in capital. When Butler reacquires and formally retires a share for $20, the retirement removes the original contributed-capital amounts associated with that share. Common stock is reduced by its $10 par amount. The remaining accounting effect is a net $10 reduction in additional paid-in capital: the original $15 contributed amount is removed, offset by the $5 difference between the $25 original issuance price and the $20 repurchase price. Cash decreases by $20 per share. Because a company's purchase and retirement of its own shares is an equity transaction with owners, it does not create revenue, expense, or a gain or loss in net income. Retained earnings therefore is not affected by this transaction under the stated facts. This treatment reflects the principle that an entity's reacquired own equity instruments are recognized as a deduction within equity rather than as assets or income-producing investments. IAS 32 expressly addresses an entity's acquisition of its own equity instruments as a deduction from equity; see IFRS: IAS 32 Financial Instruments: Presentation. For a concise overview of the retirement-method mechanics, see Corporate Finance Institute: Treasury Stock.

QUESTION NO: 36

On November 15, 2006, the yield curve was upward sloping with yields of 3%, 4%, and 5.5% on 1year, 5-year, and 10-year Treasuries, respectively. The following day, the Treasury yield curve experienced an upward parallel shift equal to 112 basis points. Which of the following noncallable bonds would have experienced the least percentage change in price as a result of the yield curve shift?

A. A 6% coupon corporate bond maturing in ten years.

B. A 6% coupon corporate bond maturing in five years.

C. A 0% coupon U.S. government bond maturing in ten years.

ANSWER: B

Explanation:

A 6% coupon corporate bond maturing in five years. would have the least percentage price change because its cash flows are received over the shortest time horizon among the listed choices. For a small parallel change in yields, a bond's approximate percentage price change is estimated as −modified duration × change in yield. Modified duration measures the price sensitivity of a bond to a yield change: lower duration means a smaller percentage price response. A five-year bond with a 6% annual coupon returns substantial cash flows before maturity through its coupon payments, reducing the present-value-weighted average time to receive cash flows. Its relatively short maturity and intermediate coupon payments therefore produce the lowest modified duration in this set. The 112-basis-point upward parallel shift implies a decline in price, but the decline is smallest in percentage terms for the bond with the lowest duration. This use of duration assumes a parallel yield-curve movement and treats the bond as noncallable, so there is no embedded call option that could alter its interest-rate sensitivity. The U.S. Treasury's overview of marketable securities provides useful context on Treasury maturities at TreasuryDirect. For a discussion of duration as a fixed-income risk measure, see Investor.gov.

QUESTION NO: 37

Social factors

A. none of these answers.

B. must be a primary consideration of investments because of the ERISA rule.

C. may never be a primary consideration of investments.

D. may be a primary consideration of investments, depending on the guidelines of the investment policy.

E. must be a primary consideration of investments because of the prudence rule.

F. must be a primary consideration of investments because of the loyalty rule.

G. may be a primary consideration when it is a relevant risk-return factor in the fiduciary's investment analysis.

ANSWER: G

Explanation:

"may be a primary consideration when it is a relevant risk-return factor in the fiduciary's investment analysis" is correct under the current ERISA investment-duty framework. An ERISA fiduciary must make investment decisions based on factors that are relevant to an investment's risk and return, evaluated in the context of the plan's investment objectives, funding policy, and portfolio characteristics. Social factors may therefore be considered—and may be determinative—where the fiduciary prudently concludes that they are financially material to risk or expected return. For example, workforce practices, customer relationships, community impacts, or regulatory and reputational exposures can affect an issuer's revenues, costs, business resilience, cost of capital, or long-term valuation. The analysis must remain focused on participants' and beneficiaries' financial interests; a fiduciary cannot sacrifice investment return or accept additional investment risk merely to advance an objective unrelated to those interests. The plan's governing documents, including its investment policy, should be followed to the extent they are consistent with ERISA. The Department of Labor's current rule deliberately avoids creating special limitations on any particular category of risk-return factor, including social considerations. See the Department of Labor's ERISA overview and the governing regulation at 29 CFR 2550.404a-1.

QUESTION NO: 38

Which of the following is/are true?

I. Straight preferred equity holders to do not have a right to demand redemption. II. Dividend payments on preferred equity are cumulative.

III. Dividends on common stock cannot be paid unless preferred dividends are paid. IV. Preferred dividends which are in arrears are a non-recorded liability.

A. I & IV

B. I, II, III & IV

C. I, II & III

D. II, III & IV

E. Straight preferred equity holders to do not have a right to demand redemption. IDividend payments on preferred equity are cumulative.
III. Dividends on common stock cannot be paid unless preferred dividends are paid. IV. Preferred dividends which are in arrears are a non-recorded liability.

ANSWER: B

Explanation:

I, II, III & IV is correct under the conventional cumulative straight-preferred-share framework used in this question. Straight preferred shares are ordinarily perpetual equity instruments: absent a specific contractual redemption feature, their holders cannot compel the issuer to repurchase or redeem the shares. Cumulative preferred shares carry forward unpaid dividends as dividends in arrears. Although those arrears are generally not recognized as a balance-sheet liability in the same way as declared dividends payable, they represent a prior claim that must be satisfied before dividends may be distributed to common shareholders. Consequently, the arrears are often described in financial-analysis materials as a non-recorded liability or an off-balance-sheet obligation of the issuer for purposes of evaluating the priority of claims and potential distributions. The cumulative feature protects preferred shareholders by preserving missed dividend entitlements rather than allowing them to lapse. This priority also means that, before a common dividend can be paid, all required current and previously unpaid cumulative preferred dividends must be brought current. Preferred stock commonly has priority over common stock for dividends and assets upon liquidation, as summarized by Investor.gov's stock overview. Further background on the contractual rights and priority characteristics of preferred stock is available from the Cornell Legal Information Institute.

QUESTION NO: 39

The deferred income tax account

A. is where the difference between income tax expense and income tax payable is reconciled

B. is always reported as a long-term liability since the tax is not due until the next fiscal year

C. is reported as an other asset even though it has a credit balance

D. none of these answers is correct

ANSWER: A

Explanation:

The deferred income tax account is where the difference between income tax expense recognized under accounting standards and income taxes currently payable under tax law is reflected. Financial reporting measures income tax expense based on pretax accounting profit and the expected tax consequences of temporary differences, whereas the tax return determines the current amount owed to the tax authority based on taxable income. When the timing of recognition differs—for example, because depreciation methods or expense-recognition rules differ for accounting and tax purposes—the difference creates a deferred tax asset or deferred tax liability. This accounting ensures that total tax expense is matched to the period in which the related accounting income is recognized, rather than being limited to cash taxes paid or payable for that period. Deferred tax balances represent future tax consequences of existing assets, liabilities, carryforwards, and temporary differences; they are reassessed as circumstances and enacted tax rates change. Accordingly, reconciling income tax expense with income taxes payable through deferred taxes is a core feature of income-tax accounting. See IAS 12, Income Taxes, and the FASB's Income Taxes (Topic 740) guidance.

QUESTION NO: 40

If the 200-day moving average for a stock is well above its current price, then

A. the stock price must have experienced an overall upturn. If the current price slide reverses itself, and the stock price moves above its 200-day moving average on heavy volume, technical analysts would view this as a very positive sign.

B. the stock price must have experienced an overall downturn. If the current price slide reverses itself, and the stock price moves above its 200-day moving average on heavy volume, technical analysts would consider this to be a sign that the stock is overbought.

C. the stock price must have experienced an overall downturn. If the 50-day moving average is also below the 200-day moving average, but then moves up above the 200-day moving average, technical analysts would consider this a sign that the market is overbought.

D. the stock price must have experienced an overall downturn. If the 50-day moving average is also below the 200-day moving average, but then moves up above the 200-day moving average on heavy volume, technical analysts would consider this to be a bullish sign.

ANSWER: D

Explanation:

A 200-day moving average well above the current stock price indicates that prices have generally declined relative to their longer-term trend. A moving average smooths daily price fluctuations, so when the current price is materially below a long-term average, it is consistent with a sustained period of price weakness or an overall downturn. Technical analysts commonly treat long-term moving averages as trend indicators and potential support or resistance levels.

The statement that the 50-day moving average was below the 200-day moving average and subsequently rises above it describes a bullish moving-average crossover, often called a golden cross. The 50-day average reflects more recent prices, while the 200-day average represents the longer-term trend. When the shorter average crosses upward through the longer average, it signals that recent price momentum has improved sufficiently to exceed the longer-term trend. Heavy trading volume can reinforce the perceived significance of this change because it suggests broad market participation in the move. Thus, following a period in which the current price is below its 200-day average, an upward crossover of the 50-day average above the 200-day average is interpreted as a bullish technical signal. See the CFA Institute overview of technical analysis at CFA Institute and the discussion of moving averages at Investopedia.

QUESTION NO: 41

The supply curve for American dollars in the foreign exchange market:

A. none of these answers.

B. is dependent on the purchases of American goods by foreigners.

C. is independent on the purchases of American goods by foreigners.

D. is dependent on the purchases of foreign goods by Americans.

ANSWER: D

Explanation:

The supply curve for U.S. dollars in the foreign exchange market is dependent on Americans' purchases of foreign goods. To pay foreign producers, U.S. consumers and businesses generally exchange dollars for foreign currencies. Those exchanges place dollars into the foreign-exchange market, creating the supply of dollars available to buyers of dollars. Thus, the quantity of dollars supplied reflects the demand by U.S. residents for imports and, more broadly, for foreign goods, services, and assets requiring payment in another currency.

At a higher foreign-currency value of the dollar, each dollar buys more foreign currency and therefore has greater purchasing power over goods priced in foreign currencies. Holding other factors constant, this makes foreign goods relatively less expensive to Americans and tends to increase their desired purchases from abroad. More foreign purchases require more currency conversion, increasing the quantity of dollars supplied. This gives the dollar-supply curve its positive relationship with the foreign price of the dollar in the standard foreign-exchange market framework. The Federal Reserve describes

foreign-exchange transactions as exchanges of one currency for another, and the IMF provides background on exchange rates and international transactions: Federal Reserve—Currency and exchange information and IMF—Exchange Rates.

QUESTION NO: 42

In reference to AIMR-PPS, which of the following is/are true?

I. If the valuation of an investment asset is not based on current market value, it should not beincluded in total assets to which PPS are being applied.

II. Composites cannot not be presented as being in compliance unless all the firm'squalifyingportfolios are accounted for in at least one composite defined according tosimilar strategy or investment objective.

III. A subsidiary may claim to be in compliance with the PPS even if the parent firm is not.

A. I, II and III

B. I and III only

C. II and III only

D. II only

E. If the valuation of an investment asset is not based on current market value, it should not beincluded in total assets to which PPS are being applied.
II. Composites cannot not be presented as being in compliance unless all the firm'squalifyingportfolios are accounted for in at least one composite defined according tosimilar strategy or investment objective.
III. A subsidiary may claim to be in compliance with the PPS even if the parent firm is not.

ANSWER: A

Explanation:

I, II and III is correct. Under the AIMR Performance Presentation Standards (PPS), performance compliance was intended to be evaluated using assets and portfolios for which the standards could be applied reliably. Accordingly, assets whose values are not based on current market values are excluded from the total assets relevant to a PPS-compliance presentation. This prevents a firm from representing non-comparable or insufficiently valued assets as part of its PPS-covered business.

The standards also required a complete and consistent composite structure. The firm’s qualifying discretionary portfolios had to be included in at least one composite constructed around a similar investment mandate, objective, or strategy. This comprehensive inclusion principle is essential because it ensures that composite performance represents the relevant portfolio population rather than a selectively chosen subset.

Finally, compliance was assessed at the level of the defined firm. A subsidiary that is operationally and organizationally identifiable as the firm making the compliance claim may claim compliance independently, even when its parent does not make such a claim. These PPS principles were carried forward and further formalized in the Global Investment Performance Standards framework. See the GIPS Standards and CFA Institute’s GIPS standards overview.

QUESTION NO: 43

Assume the following information about a common stock:

Price per share: $90.35

Last dividend per share: $1.50

Required return: 15% per year Expected growth rate: 12% per year

What is the value of this common stock?

A. None of these answers is correct.

B. The answer cannot be determined from the information provided.

C. $79

D. $50

E. $44

F. $56

ANSWER: F

Explanation:

$56 is the intrinsic value produced by the Gordon growth form of the dividend discount model. This model values a stock as the present value of dividends expected to grow indefinitely at a constant rate: $V_0 = D_1 \div (r - g)$. The dividend required in the numerator is next year's expected dividend, rather than the most recently paid dividend. Therefore, the expected dividend is $1.50 × 1.12 = $1.68. The required return is 15%, and the perpetual growth rate is 12%, so the capitalization rate is 0.15 − 0.12 = 0.03. Dividing $1.68 by 0.03 gives an estimated value of $56 per share. The model is mathematically applicable because the required return exceeds the assumed perpetual growth rate; this produces a positive denominator and a finite present value. The observed market price is not an input to this intrinsic-value calculation, although it can subsequently be compared with the model estimate. Constant-growth dividend valuation and its required use of the next-period dividend are summarized by CFA Institute's equity valuation refresher and Corporate Finance Institute's Gordon growth model overview.

QUESTION NO: 44

An intern with Churn Brothers Brokerage has been asked to calculate the Price-to-earnings ratio for Clay Industries. She has been provided with the following information:

D0 = $1.25 g = 12% per year k = 15.5% per year

Earnings per share: $2.78

Using this information, what is the price-to-earnings ratio for Clay Industries?

A. None of these answers is correct.

B. 17.05

C. 14.39

D. 21.27

E. 15.21

F. 12.85

G. The answer cannot be calculated from the information provided.

ANSWER: C

Explanation:

14.39 is correct. Under the Gordon growth dividend-discount model, the current intrinsic value is $P_0 = D_1/(k - g)$. Dividing this expression by current earnings per share produces the justified price-to-earnings ratio: $P_0/EPS = (D_1/EPS)/(k - g)$. The model requires next period's dividend, so the stated dividend of $1.25 must first be grown by 12%: $D_1 = \$1.25 \times 1.12 = \$1.40$. The dividend payout component is therefore $\$1.40/\$2.78 = 0.5036$. The required-return spread over the perpetual growth rate is $15.5\% - 12.0\% = 3.5\%$, or 0.035. Thus, the justified P/E is $0.5036/0.035 = 14.388...$, which rounds to 14.39. This result is also economically coherent because the required return exceeds the growth rate, satisfying the Gordon model's key condition for a finite value. The approach follows the standard constant-growth valuation relationship described in CFA Institute's equity valuation refresher and the Gordon growth model overview from NYU Stern.

QUESTION NO: 45

If the marginal propensity to consume (MPC) is .75 or 3/4, what is the expenditure multiplier?

A. 0.25

B. 4.0

C. 3.0

D. 2.0

ANSWER: B

Explanation:

The correct answer is **4.0**. In the simple Keynesian expenditure model, the expenditure multiplier measures the total eventual change in equilibrium output resulting from an initial autonomous change in spending. It is calculated as 1 divided by 1 minus the marginal propensity to consume: multiplier = 1 / (1 − MPC). With an MPC of 0.75, households spend 75% of each additional unit of income and, correspondingly, save 25%. Therefore, the multiplier is 1 / (1 − 0.75), or 1 / 0.25, which equals 4.0. Economically, this means that an initial increase of one unit in autonomous expenditure can produce a four-unit increase in aggregate equilibrium income, assuming the model's usual simplifying conditions, including no taxes, imports, or price-level effects. The result also reflects the inverse relationship between the multiplier and the marginal propensity to save: when consumers spend a relatively large portion of incremental income, successive rounds of induced consumption are larger. For a discussion of the spending multiplier and its formula, see OpenStax, The Building Blocks of Keynesian Analysis and IMF, Back to Basics: Keynesian Economics.

QUESTION NO: 46

What is the present value today of these annual cash flows: $3,000, $2,000, $1,000? Assume the first cash flow occurs 1 year from today and an interest rate of 10% per year, compounded annually.

A. $5,205.67

B. $5,131.48

C. $6,089.92

D. $5,067.65

E. $6,000.00

ANSWER: B

Explanation:

$5,131.48 is the present value because each future cash flow must be discounted separately to time zero at the stated annual rate of 10%. The $3,000 received one year from today has a present value of $3,000 ÷ 1.10 = $2,727.27. The $2,000 received at the end of year two is discounted for two annual periods: $2,000 ÷ $(1.10)^2$ = $1,652.89. The $1,000 received at the end of year three is discounted for three annual periods: $1,000 ÷ $(1.10)^3$ = $751.31. Adding the discounted values gives $2,727.27 + $1,652.89 + $751.31 = $5,131.48, subject to rounding. This applies the core time value of money principle: a dollar available in the future is worth less today because funds available today can earn the required return over time. The same result can be obtained by entering an initial cash flow of zero, followed by the three annual cash flows, and calculating net present value using an interest rate of 10%. For further background on present-value calculations, see CFA Institute's Time Value of Money refresher and OpenStax's present value discussion.

QUESTION NO: 47

The following financial statement depicts only one point in time:

A. Income Statement

B. Statement of Cash Flows

C. Statement of Retained Earnings

D. Balance Sheet

ANSWER: D

Explanation:

The **Balance Sheet** depicts a company's financial position at a single, specified date—such as December 31. It reports the resources the company controls (assets), its obligations (liabilities), and the residual ownership interest of shareholders (equity) as of that exact point in time. This is why the balance sheet is often described as a "snapshot" of financial condition. The fundamental accounting equation, assets = liabilities + equity, must hold on the reporting date and provides the framework for presenting these balances. In CFA Level I financial reporting analysis, balance-sheet information is used to assess liquidity, solvency, capital structure, and the composition and quality of a company's assets and financing. The date-specific nature of its figures distinguishes this statement from statements that summarize operating activity, cash movements, or changes in equity over a reporting interval. See the CFA Institute's overview of financial reporting standards and the IFRS Foundation's IAS 1 presentation requirements, which describe a statement of financial position as reported at the end of a period.

QUESTION NO: 48

The standard deviation of a two-stock portfolio least likely:

A. must be less than or equal to the weighted-average standard deviation.

B. can be reduced by increasing the relative weight of the stock with lower standard deviation.

C. will be the lowest when the correlation between the two stocks equals zero.

ANSWER: C

Explanation:

The statement "will be the lowest when the correlation between the two stocks equals zero." is least likely because the correlation that produces the minimum possible standard deviation for a two-stock portfolio is negative one, not zero. Portfolio variance includes a covariance term, expressed as two times the product of the portfolio weights, individual standard deviations, and the correlation coefficient. As correlation falls, that covariance contribution falls, reducing total portfolio variance and therefore portfolio standard deviation.

With a correlation of negative one, the two stocks' returns move perfectly in opposite directions. For suitable portfolio weights, the offsetting movements can eliminate portfolio risk entirely, producing a standard deviation of zero. A zero correlation means the stocks have no linear co-movement, which can provide diversification benefits, but it does not represent the lowest possible correlation or the greatest possible risk reduction. The key portfolio-management principle is that diversification benefits depend on correlation: lower correlation creates a greater potential reduction in portfolio risk. See CFA Institute's discussion of diversification and portfolio risk at CFA Institute and the portfolio-variance framework described by Investopedia's Modern Portfolio Theory overview.

QUESTION NO: 49

Which of the following statements is true?

A. Given a small decrease in the real risk-free rate, a large increase in the risk premium for a stock, and a large decrease in the return on equity, one would expect the required rate of return on the stock to increase, the growth rate to decrease, and the earnings multiplier to increase.

B. Given a large decrease in the rate of inflation and the risk premium for a stock, and a large increase in the return on equity, one would expect the required rate of return on the stock to decrease, the growth rate to increase, and the earnings multiplier to increase.

C. Given a large increase in the rate of inflation, a small decrease in the risk premium for a stock, and a large decrease in the return on equity, one would expect the required rate of return on the stock to decrease, the growth rate to decrease, and the earnings multiplier to decrease.

D. Given a small increase in the rate of inflation, a small increase in risk premium for a stock, and a larger decrease in the return on equity, one would expect the required rate of return on the stock to increase, the growth rate to decrease, and the earnings multiplier to increase.

ANSWER: B

Explanation:

"Given a large decrease in the rate of inflation and the risk premium for a stock, and a large increase in the return on equity, one would expect the required rate of return on the stock to decrease, the growth rate to increase, and the earnings multiplier to increase." is correct. In the justified price-to-earnings framework, the required return incorporates the risk-free rate and an equity risk premium. A substantial decline in inflation generally reduces nominal interest rates and therefore contributes to a lower required return; a lower stock-specific risk premium reinforces that result. The sustainable growth rate is driven by return on equity and the earnings retention ratio. Holding retention constant, a large increase in return on equity raises expected growth. The earnings multiplier is positively related to expected growth and negatively related to the required return. Consequently, the simultaneous increase in growth and decrease in required return both support an increase in the justified earnings multiplier. This directional analysis follows the dividend discount model intuition: a higher expected stream of future earnings and dividends, discounted at a lower rate, warrants a higher value relative to current earnings. CFA Institute's curriculum topic area of equity investments includes valuation using dividend-discount and market-multiple approaches; see CFA Program Curriculum. For a concise presentation of the Gordon growth valuation relationship underlying this result, see Aswath Damodaran's Dividend Discount Model materials.

QUESTION NO: 50

According to the AIMR-PPS, total firm assets are defined to include

A. all discretionary and nondiscretionary assets, as well as assets underlying overlay investment strategies.

B. all discretionary and nondiscretionary assets.

C. any asset deemed eligible by the firm.

D. only assets underlying overlay investments strategies.

ANSWER: B

Explanation:

"all discretionary and nondiscretionary assets" is correct. Under the former AIMR Performance Presentation Standards (AIMR-PPS), total firm assets represented the assets for which the firm had either discretionary or nondiscretionary investment-management responsibility. This firm-level measure was intended to describe the scope of the firm's investment-management business, rather than only the assets included in a particular composite. Discretionary assets are those for which the manager can implement investment decisions without obtaining prior client approval for each transaction; nondiscretionary assets remain part of total firm assets even though the client retains decision authority or imposes approval requirements. The definition does not automatically extend to the value of assets underlying an overlay strategy, because an overlay manager may manage only currency, derivatives, or another overlay component rather than the underlying portfolio assets themselves. Under the historical AIMR-PPS approach, underlying overlay assets are included only when the firm actually manages those assets. AIMR-PPS was subsequently replaced by the Global Investment Performance Standards (GIPS), which continue to emphasize consistent, clearly defined firm-level and composite-level performance reporting practices. See the GIPS Standards for Firms and CFA Institute's GIPS standards resource.

QUESTION NO: 51

The relationship between inflation and unemployment rate is known as:

A. Phillips curve.

B. Equation of exchange

C. Lucas curve.

D. Inflation-unemployment parity

ANSWER: A

Explanation:

The relationship between inflation and the unemployment rate is known as the Phillips curve. Originally identified by economist A. W. Phillips using UK data, the Phillips curve describes an observed inverse short-run relationship: periods with lower unemployment have often been associated with higher wage growth and, consequently, higher inflation, while higher unemployment has often coincided with lower inflationary pressure. In macroeconomic analysis, the concept is commonly expressed as a relationship between inflation, expected inflation, unemployment relative to its natural rate, and supply shocks. For CFA Level I purposes, it is important to recognize that this is primarily a short-run framework. Over a longer horizon, inflation expectations can adjust, so economists generally do not infer a stable, permanent trade-off between inflation and unemployment. The Phillips curve remains a central tool for discussing aggregate supply, monetary-policy trade-offs, and the role of inflation expectations. The Federal Reserve provides a useful overview of the curve and its modern interpretation in its Phillips Curve discussion. A concise economic definition is also available from the International Monetary Fund.

QUESTION NO: 52

Fifteen accounting majors had an average grade of 90 on a finance exam. Seven marketing majors averaged 85, while ten finance majors averaged 93 on the same exam. What is the weighted mean for the 32 students taking the exam?

A. None of these answers

B. 89.33

C. 89.48

D. Impossible to determine without more information

E. 89.84

ANSWER: E

Explanation:

The correct answer is **89.84**. A weighted mean combines subgroup averages by giving each average a weight equal to the number of observations it represents. Here, the accounting-major average represents 15 exam scores, the marketing-major average represents 7 scores, and the finance-major average represents 10 scores. The total of all implied exam scores is therefore (15 × 90) + (7 × 85) + (10 × 93) = 1,350 + 595 + 930 = 2,875. Since there are 32 students in total, dividing the aggregate score by 32 gives 2,875 ÷ 32 = 89.84375. Rounded to two decimal places, the weighted mean is 89.84.

This approach is appropriate because the groups have different sizes. Treating the three reported averages as equally important would not represent the average score across all individual students. In CFA Level I quantitative methods, a weighted mean is calculated as the sum of each value multiplied by its relative or frequency weight, divided by the sum of the weights. For additional background, see Khan Academy's weighted-mean overview and CFA Institute's Quantitative Methods refresher readings.

QUESTION NO: 53

The following data are taken from the Ultimate Omega's financial statements ending Dec 31, 1985:

Increase in inventories 220

Stock's repurchased 135

Provision for warranty expenses 15

Depreciation 90

Interest paid 35

Outstanding bonds retired 225

After-tax gain on bond retirement 25

Net Income 430 Tax rate 40%

What was Ultimate Omega's operating cash flow in 1985?

A. 240

B. 225

C. 305

D. 290

ANSWER: D

Explanation:

Ultimate Omega’s operating cash flow is **290**, using the indirect method. This method begins with reported net income of 430 and reconciles it to cash generated by operations. Depreciation of 90 is added back because it reduced accounting income but did not require a current-period cash outflow. Similarly, the 15 warranty-expense provision is added back because recognizing the provision is a noncash accrual; cash payments, if any, would affect operating cash flow when paid.

The 220 increase in inventories is subtracted. An increase in inventory represents cash invested in working capital that has not yet been recognized as an expense through cost of goods sold. The after-tax gain on bond retirement of 25 is deducted from net income in the operating section because it is a gain included in net income but relates to a financing transaction rather than operating performance. Accordingly, operating cash flow is calculated as 430 + 90 + 15 − 220 − 25 = 290. This reconciliation follows the indirect-method framework for reporting cash flows from operating activities, under which noncash charges, nonoperating gains or losses, and changes in operating working-capital accounts adjust net income. See FASB Accounting Standards Codification and IAS 7: Statement of Cash Flows.

QUESTION NO: 54

Which is a measure of profitability?

A. Debt to Equity Ratio

B. Price/Earnings Ratio

C. Return on Assets

D. Dividend Yield

E. Payout Ratio

ANSWER: C

Explanation:

Return on Assets is a profitability measure because it evaluates how effectively a company generates earnings from the economic resources it controls. It is commonly calculated as net income divided by average total assets, although analysts

may use an alternative profit measure, such as operating income, when a different analytical focus is appropriate. A higher return on assets generally indicates that management is producing more profit per unit of assets employed, making the measure useful for assessing operating efficiency and for comparing companies with broadly similar business models.

Asset intensity is an important consideration when interpreting this ratio. Businesses that require substantial investment in property, equipment, inventory, or other assets will often report lower return-on-assets figures than service-oriented businesses that can generate revenue with a relatively smaller asset base. Accordingly, meaningful comparisons should account for industry characteristics, accounting choices, and changes in asset levels over time. CFA Institute's financial-statement-analysis materials classify profitability ratios as measures that relate profits to sales, assets, equity, or capital. For further context, see CFA Institute's Financial Analysis Techniques refresher and the SEC's investor resource on stock market basics.

QUESTION NO: 55

In a distribution that is right skewed:

A. the median is larger than the mean.

B. large negative deviations dominate large positive deviations.

C. the mean is positive.

D. large positive deviations dominate large negative deviations.

ANSWER: D

Explanation:

In a right-skewed distribution, also called a positively skewed distribution, the long tail extends toward higher values. Although observations may cluster around lower or central values, a relatively small number of unusually high observations creates large positive deviations from the mean. These positive deviations have a disproportionate effect when deviations are cubed in the skewness calculation, so they dominate the large negative deviations and produce positive skewness. This is the defining characteristic described by "large positive deviations dominate large negative deviations." In financial return data, this pattern can arise when most returns are moderate but occasional exceptionally large gains occur. The direction of skewness concerns the asymmetry and tail behavior of the distribution; it does not, by itself, establish whether the mean's numerical value is positive or negative. For further discussion of skewness as a measure of distributional shape, see the CFA Institute's Statistical Measures of Market Returns refresher reading and the NIST/SEMATECH Skewness and Kurtosis reference.

QUESTION NO: 56

An automatic machine inserts mixed vegetables into a plastic bag. Past experience revealed that some packages were underweight and some were overweight, but most of them had satisfactory weight.

Weight % of Total

Underweight 2.5

Satisfactory 90.0 Overweight 7.5

What is the probability of selecting and finding that all three of them are overweight?

A. 0.0004218

B. 0.0000156

C. 0.075

D. 0.0000001

E. None of these answers

ANSWER: A

Explanation:

The correct answer is **0.0004218**. Historical experience indicates that the probability a single package is overweight is 7.5%, expressed as a decimal probability of 0.075. For three selected packages all to be overweight, the relevant joint probability is found by multiplying the probability of an overweight package for each of the three selections. Assuming package weights are independent—a standard assumption when no dependence or sampling-without-replacement population constraint is specified—the calculation is 0.075 × 0.075 × 0.075 = 0.000421875. Rounded or truncated to the precision displayed in the answer choices, this is 0.0004218. This result can also be interpreted as approximately 0.04218%, showing that three consecutive overweight packages are relatively uncommon even though a single overweight package occurs 7.5% of the time. The multiplication rule for independent events states that the probability that all specified events occur equals the product of their individual probabilities. See OpenStax's discussion of the multiplication rule of probability and the NIST probability reference.

QUESTION NO: 57

John was offered a salary of $25,000 when he graduated from school 15 years ago. He was somewhat depressed to read that the average starting salary for someone with his degree today was $45,000. He then decided to determine the annual, compound rate of increase implied in the increase of the starting salary from $25,000 to $45,000 in 15 years. What is this annually compounded growth rate?

A. 4.00%

B. 7.15%

C. 1.03%

D. 8.42%

E. 12.00%

ANSWER: A

Explanation:

The correct annual compounded growth rate is **4.00%**. This is a compound-growth, or compound annual growth rate, calculation: the $25,000 starting salary must grow for 15 annual periods to reach $45,000. The applicable relationship is ending value = beginning value × (1 + growth rate)^{n}. Solving for the unknown growth rate gives: growth rate = ($45,000 ÷ $25,000)$^{1/15}$ − 1. The ratio of ending to beginning salary is 1.8, and taking its fifteenth root produces approximately 1.03997. Subtracting 1 gives 0.03997, or 3.997% per year. Rounded to two decimal places, this is 4.00%.

This rate is annual because the 15-year interval is divided into 15 compounding periods, with one compounding period per year. On a financial calculator, enter 15 for the number of periods, 25,000 as the present value, zero as the periodic payment, and −45,000 as the future value; then compute the interest rate. The opposite signs for present and future values reflect the calculator cash-flow sign convention. This approach applies the time value of money principle that a value grows geometrically when a constant rate is compounded over successive periods. See the CFA Institute Time Value of Money refresher and OpenStax's discussion of interest rates and compounding.

QUESTION NO: 58

Mike Jordan recently met his old friend, Charlie Barklee, who's an accomplished statistician.

Charlie showed him his new model for predicting stock prices and after considerable discussion, Mike was convinced the model was a viable alternative to his current methodology for picking stocks. To test it, he downloaded historical data from a well-known statistical data provider's web site. The tests indicated that some parts of the model needed fine tuning, which Mike implemented himself, without Charlie's help. Mike:

A. cannot circulate the model since it is not publicly available.

B. can show his clients the model, without any special disclosures, because all of the tests were done by him with publicly available data.

C. none of these answers.

D. must acknowledge Charlie's contribution. Otherwise, he would be in violation of the Code of Ethics and Standards of Professional Conduct and be subject to disciplinary action from CFA Institute.

ANSWER: D

Explanation:

“Must acknowledge Charlie's contribution. Otherwise, he would be in violation of the Code of Ethics and Standards of Professional Conduct and be subject to disciplinary action from CFA Institute.” is correct because Charlie originated and shared the stock-price prediction model that Mike proposes to use. Under Standard I(C), Misrepresentation, CFA Institute members and candidates must not present another person’s work, ideas, or intellectual property as their own. This obligation applies even when the information was received informally in a conversation rather than drawn from a published source.

Mike’s independent historical testing and subsequent fine-tuning represent useful work, but they do not erase Charlie’s role in developing the underlying model. Accordingly, Mike may describe his own testing and modifications, while clearly crediting Charlie for the original model or methodology. Proper attribution enables clients to understand the source and development of the analysis and avoids the misleading impression that Mike created the entire approach. The CFA Institute Standards of Professional Conduct identify plagiarism as using another person’s work without acknowledgment and require appropriate recognition of the source. See the CFA Institute Code of Ethics and Standards of Professional Conduct and CFA Institute’s Standards of Practice Handbook resources.

QUESTION NO: 59

Which of the following transactions will impact a company's balance sheet?

A. The payment of principal on a long-term loan

B. The sale of new common stock

C. Net income earned by a company

D. All of these answers

E. The purchase of equipment for cash

ANSWER: D

Explanation:

All of these answers is correct because each listed event changes at least one account reported on the balance sheet, which presents a company’s assets, liabilities, and equity at a point in time. Paying principal on a long-term loan reduces both cash and the related loan liability. Issuing new common stock increases cash (or another asset received) and increases contributed equity. Net income increases retained earnings, a component of shareholders’ equity, after it is closed into equity at the end of the reporting period. Purchasing equipment for cash changes the composition of assets: cash declines while property, plant, and equipment increases. Thus, even where a transaction does not change total assets or total equity, it still affects the amounts or classifications reported in the statement of financial position. This result follows the fundamental accounting equation: assets equal liabilities plus equity. Transactions are recorded so that this equation remains in balance while recognizing the relevant changes in the underlying accounts. The IFRS Conceptual Framework describes assets, liabilities, and equity as the elements reported in a statement of financial position; see the IFRS Conceptual Framework. For a practical overview of the balance sheet and its accounting equation, see the SEC guide to financial statements.

QUESTION NO: 60

Which of the following is not an approach to real estate value, when performing an appraisal?

A. Market approach

B. Cost approach

C. Income approach

D. Property transfer approach

ANSWER: D

Explanation:

Property transfer approach is the correct choice because it is not one of the recognized approaches used by appraisers to develop an opinion of real property value. Professional appraisal practice identifies three traditional valuation approaches: the sales comparison approach, which derives value from recent sales of comparable properties; the cost approach, which estimates the current cost to reproduce or replace improvements after accounting for depreciation and adding land value; and the income approach, which converts anticipated income benefits into an indication of value. These approaches provide complementary evidence, and the relevance assigned to each depends on the property type, available market data, and the purpose of the appraisal. For example, income-producing commercial real estate is commonly analyzed with substantial emphasis on its expected rental income and expenses, while sales of similar properties can be particularly useful where an active comparable-sales market exists. A transfer of property may create transaction information that can be considered as market evidence if it is an arm's-length sale, but "property transfer approach" is not itself an established appraisal methodology. The Appraisal Foundation describes the sales comparison, cost, and income capitalization approaches in its appraisal guidance; see The Appraisal Foundation appraisal standards. The International Valuation Standards Council also recognizes market, income, and cost approaches in International Valuation Standards.

QUESTION NO: 61

A firm has purchased a building with a useful life of 7 years. It cost $35,000 and its salvage value is estimated at $5,000. If the firm uses double declining method, what's the depreciation expense recognized in Year 2?

A. $9,125

B. $7,143

C. $10,000

D. $6,857

ANSWER: B

Explanation:

$7,143 is the correct Year 2 depreciation expense under the double-declining-balance method. This accelerated method applies a depreciation rate equal to twice the straight-line rate to the asset's beginning carrying amount for each year. With a seven-year useful life, the straight-line rate is 1/7, so the double-declining rate is 2/7, or approximately 28.5714% per year. In Year 1, depreciation is $35,000 × 2/7 = $10,000, leaving a beginning Year 2 carrying amount of $25,000. Applying the same double-declining rate in Year 2 gives $25,000 × 2/7 = $7,142.857, which rounds to $7,143. The estimated $5,000 salvage value is not deducted from the cost when calculating annual double-declining depreciation; rather, it serves as a floor, meaning depreciation must not reduce the asset's carrying amount below that amount. After recognizing the Year 2 charge, the carrying amount is about $17,857, still above salvage value, so no salvage-value limitation affects this year's calculation. This treatment is consistent with the declining-balance approach described in IRS Publication 946 and with the requirement to allocate an asset's depreciable amount systematically over its useful life in IAS 16.

QUESTION NO: 62

The optimal debt ratio is the debt ratio that:

A. minimizes the firm's bankruptcy costs.

B. maximizes the firm's earnings per share and maximizes the firm's stock price.

C. maximizes the firm's stock price.

D. maximizes the firm's earnings per share.

ANSWER: C

Explanation:

The optimal debt ratio is the capital-structure mix of debt and equity that maximizes the value of the firm and, consequently, its stock price. Debt can enhance shareholder value through benefits such as the tax deductibility of interest in many jurisdictions, which may lower the firm's weighted average cost of capital at moderate borrowing levels. However, increasing leverage also raises the probability and expected costs of financial distress, including direct bankruptcy costs and indirect costs such as constrained operations, lost customers, or reduced financial flexibility. The optimal point is reached where the incremental value benefits from additional debt are exactly balanced by its incremental costs. Thus, the relevant objective is not simply achieving the highest earnings per share, because EPS can rise with leverage even when the added financial risk reduces firm value. It is also not solely minimizing bankruptcy costs, since a firm with no debt may have minimal distress costs but may fail to capture available financing benefits. CFA curriculum discussions of capital structure frame the optimal target as the leverage level that maximizes firm value and shareholder wealth. See the CFA Institute's overview of cost of capital and capital-structure concepts and the optimal capital structure definition.

QUESTION NO: 63

Grant Grocers is considering the following investment projects:

Project Size of Project IRR of Project

V 1.0 million12.0%

W 1.2 million11.5%

X 1.2 million11.0%

Y 1.2 million10.5%Z 1.0 million10.0%

The company has a target capital structure, which is 50 percent debt and 50 percent equity. The after- tax cost of debt is 8 percent. The cost of retained earnings is estimated to be 13.5 percent. The cost of equity is estimated to be 14.5 percent if the company issues new common stock. The company's net income is $2.5 million. If the company follows a residual dividend policy, what will be its payout ratio?

A. 66%

B. 12%

C. 32%

D. 54%

E. 100%

ANSWER: C

Explanation:

32% is correct. Under a residual dividend policy, a company first identifies the capital projects that should be accepted, finances the equity portion of those projects in accordance with its target capital structure, and distributes any income remaining after that equity funding as dividends. Because retained earnings are available, the relevant weighted average cost of capital uses the 8% after-tax debt cost and the 13.5% cost of retained earnings: (0.50 × 8%) + (0.50 × 13.5%) = 10.75%.

The firm therefore accepts the projects with internal rates of return exceeding 10.75%: Projects V, W, and X. Their combined investment is $3.4 million. With a 50% equity target, required equity financing equals $1.7 million. Net income is $2.5 million,

so the residual available for dividends is $2.5 million − $1.7 million = $0.8 million. The dividend payout ratio is consequently $0.8 million ÷ $2.5 million = 32%.

This treatment reflects the residual-dividend framework and the use of retained earnings as the initial equity source. See the CFA Institute's overview of corporate issuers and the CFA Program curriculum.

QUESTION NO: 64

An unanticipated shift to a more expansionary monetary policy will most likely cause

A. depreciation in the exchange rate of the nation's currency, higher real interest rates and an inflow of capital.

B. appreciation in the exchange rate of the nation's currency, higher real interest rates and an inflow of capital.

C. appreciation in the exchange rate of the nation's currency, lower real interest rates and an outflow of capital.

D. depreciation in the exchange rate of the nation's currency, lower real interest rates and an outflow of capital.

ANSWER: D

Explanation:

An unanticipated shift to more expansionary monetary policy will most likely cause **depreciation in the exchange rate of the nation's currency, lower real interest rates and an outflow of capital.** Expansionary policy increases the supply of money and, all else equal, puts downward pressure on domestic interest rates. If the policy change is unanticipated, investors may revise their expected returns on domestic fixed-income and other financial assets downward relative to comparable foreign assets. This encourages capital to move abroad in search of relatively higher expected returns, creating a capital outflow.

The lower relative return on domestic assets also reduces demand for the domestic currency in foreign-exchange markets, because foreign investors need less of that currency to purchase domestic assets and domestic investors may sell it to acquire foreign investments. Increased currency supply and reduced currency demand lead to depreciation. In addition, a more accommodative monetary stance can raise expected inflation; a higher expected inflation rate further lowers real interest rates and can reinforce the currency-depreciation effect. These relationships are central to the monetary-policy transmission mechanism in an open economy. See the Federal Reserve's discussion of monetary policy transmission at Federal Reserve: What is monetary policy and how does it work? and the IMF's overview of exchange rates at IMF: Exchange Rates.

QUESTION NO: 65

Marlene Gooseberry, an institutional money manager with Middle Road Brokerage, has been examining a stock market series and has determined the following information:

The dividend payout ratio at t1 has been estimated at: 31% The required rate of return is 16%

The anticipated future growth rate of dividends is 13.75%

The anticipated future growth rate of earnings is 14.25% The corporate tax rate is 35%

Using this information, what is the earnings multiplier for this stock market series? Choose the best answer.

A. 8.96

B. 7.75

C. 13.78

D. 17.71

E. None of these answers is correct.

F. The answer cannot be determined from the information provided.

ANSWER: C

Explanation:

The correct earnings multiplier is **13.78**. Under the justified price-to-earnings approach derived from the Gordon growth model, the leading earnings multiplier is calculated as the dividend payout ratio divided by the difference between the required return on equity and the expected dividend growth rate: $P/E = (D_1/E_1) \div (r - g)$. Here, the payout ratio is 0.31, the required return is 0.16, and expected dividend growth is 0.1375. Therefore, the multiplier is $0.31 \div (0.16 - 0.1375) = 0.31 \div 0.0225 = 13.7778$, which rounds to 13.78.

This formulation uses the dividend growth rate because the valuation model capitalizes the stream of expected dividends. The stated earnings growth rate is not substituted for dividend growth when a separate expected dividend-growth estimate is supplied. Likewise, the corporate tax rate does not enter this calculation separately: the dividend payout ratio already relates dividends to earnings on the relevant after-tax basis. This result is a leading P/E measure because its numerator is price and its earnings denominator corresponds to the next-period payout ratio used in the Gordon-growth valuation relation. For background on the Gordon growth dividend-discount framework and its assumptions, see CFA Institute's Equity Valuation refresher reading and Aswath Damodaran's valuation notes.

QUESTION NO: 66

Which of the following statements is correct?

A. The bond-yield-plus-risk-premium approach to estimating the cost of equity is not always accurate but its advantages are that it is a standardized and objective model.

B. Although some methods of estimating the cost of capital encounter severe difficulties, the CAPM (Capital Asset Pricing Model) is a simple and reliable model that provides great accuracy and consistency in estimating the cost of capital.

C. Depreciation-generated funds are an additional source of capital and, in fact, represent the largest single source of funds for some firms.

D. The DCF (Discounted Cash Flow) model is preferred over other models to estimate the cost of equity because of the ease with which a firm's growth rate is obtained.

ANSWER: C

Explanation:

Depreciation-generated funds are an additional source of capital and, in fact, represent the largest single source of funds for some firms. This statement is correct in the standard corporate-finance sense that depreciation, while not itself a cash receipt, preserves operating cash flow by reducing reported income without requiring a current-period cash outlay. Under the indirect method of presenting operating cash flows, depreciation expense is added back to net income because it reduced accounting profit but did not use cash during the period. More importantly, depreciation deductions can reduce taxable income, producing a depreciation tax shield and thereby increasing cash available for reinvestment, debt service, dividends, or other financing needs. For asset-intensive firms with substantial property, plant, and equipment, these internally retained cash-flow effects can be especially large and are often described as depreciation-generated funds. The characterization does not mean that depreciation creates cash independently of operations; rather, it identifies the cash-flow benefit associated with recovering an asset's cost over time and obtaining the related tax deduction. The treatment of non-cash expenses in operating cash flows is illustrated in the SEC's indirect cash-flow guidance, and the broader cash-flow statement framework is set out in IAS 7.

QUESTION NO: 67

Earnings multipliers for series of stocks (such as the S&P 400) have been found to be

A. more volatile than the earnings for series of stocks.

B. less volatile than earnings for series of stocks.

C. stable.

D. approximately as volatile as earnings for series of stocks.

ANSWER: A

Explanation:

Earnings multipliers for stock indexes have been found to be more volatile than the earnings of the stock series themselves. An earnings multiplier is commonly represented by the price-to-earnings ratio: price equals earnings multiplied by the P/E multiple. Therefore, changes in an index's value reflect variation in both aggregate earnings and the multiple investors are willing to assign to those earnings. Empirical evidence cited for the S&P 400 illustrates that the standard deviation of annual changes in the earnings multiplier is 28.2, compared with 18.3 for annual earnings changes. This greater dispersion means that assumptions of a stable multiplier are not well supported for valuation of a stock series. Analysts valuing an equity index should consequently forecast both the earnings level and the valuation multiple, because changes in market sentiment, required returns, expected growth, and risk can materially affect the multiple independently of current earnings. CFA Institute's equity valuation curriculum discusses the price-to-earnings ratio as a valuation multiple and its relationship to market price and earnings; see CFA Institute: Market-Based Valuation. For further background on S&P MidCap 400 index methodology and index-level characteristics, see S&P Dow Jones Indices: S&P MidCap 400.

QUESTION NO: 68

Smith Company has no retained earnings. The company uses the CAPM to calculate the cost of equity capital. The company's capital structure consists of common stock, preferred stock, and debt. Which of the following events will reduce the company's WACC?

A. An increase in the flotation costs associated with issuing preferred stock.

B. An increase in the flotation costs associated with issuing common equity.

C. A reduction in the market risk premium.

D. An increase in the company's beta.

E. An increase in expected inflation.

ANSWER: C

Explanation:

A reduction in the market risk premium. will reduce Smith Company's weighted average cost of capital because, under the capital asset pricing model (CAPM), the required return on common equity is calculated as the risk-free rate plus beta multiplied by the market risk premium: $r_e = r_f + \beta(r_m - r_f)$. Holding the risk-free rate and the company's beta constant, a lower market risk premium directly lowers the required return demanded by common shareholders.

WACC is the market-value-weighted cost of each source of financing, including common equity, preferred stock, and after-tax debt. Therefore, when the common-equity component cost declines, the overall WACC declines, assuming the capital-structure weights and the other component costs do not change. The fact that Smith has no retained earnings means its common-equity financing would be externally raised; however, the CAPM-based required return remains directly sensitive to the market risk premium. CAPM's relationship between expected return, systematic risk, and the market risk premium is summarized by CFA Institute at CFA Institute's Cost of Capital: Foundational Topics. A further overview of CAPM inputs and expected-return estimation is available from NYU Stern's CAPM materials.

QUESTION NO: 69

When formulating an investment policy for a client, all of the following fall under the category of "investor constraints," except:

A. risk tolerance

B. liquidity needs

C. expected cash flows

D. regulatory and legal circumstances

E. time horizon

F. tax considerations

G. investable funds

H. investor preferences, circumstances and unique needs

ANSWER: A

Explanation:

Risk tolerance is correctly identified as the item that does not fall under investor constraints because it is a core component of the client's investment objectives. In an investment policy statement, objectives establish what the portfolio is intended to achieve and the degree of uncertainty the investor can accept while pursuing those outcomes. Risk tolerance reflects both the investor's willingness to bear investment risk and their financial capacity to absorb losses or volatility. This assessment helps the adviser select an appropriate strategic asset allocation and ensure that the expected variability of portfolio returns is consistent with the client's circumstances and behavior.

Investment constraints, by contrast, are conditions that restrict how the portfolio can be constructed or managed. The CFA Institute's portfolio-management framework commonly organizes these considerations through the investor's liquidity, time horizon, tax, legal or regulatory, and unique-circumstance considerations. Separating risk tolerance from these restrictions is important: it connects the portfolio's risk profile directly to the investor's objectives rather than treating it as an external implementation limitation. See the CFA Institute's overview of private wealth management and its Standards of Practice Handbook for the role of client circumstances and suitability in portfolio advice.

QUESTION NO: 70

If a stock price that was previously in a rising trend channel suddenly enters a flat trend channel,

A. most technical analysts would sell the stock on the presumption that it will next enter a declining trend channel. A declining trend channel is a general pattern of price decline, while a flat trend channel is a pattern of unpredictable price fluctuation.

B. some technical analysts would sell the stock in case it will enter a declining trend channel. Most analysts will keep the stock and see what occurs. A flat trend channel is a pattern of price stability.

C. most technical analysts would buy the stock on the presumption that it will soon re-enter the rising trend channel. A rising trend channel is a general pattern of price increase, while a flat trend channel is a pattern of unpredictable price fluctuation.

D. all technical analysts would sell the stock on the belief that it will almost certainly enter a declining trend channel. A declining trend channel is a general pattern of price decline, while a flat trend channel is a pattern of price stability.

ANSWER: B

Explanation:

The correct response is: "some technical analysts would sell the stock in case it will enter a declining trend channel. Most analysts will keep the stock and see what occurs. A flat trend channel is a pattern of price stability." A trend channel is defined by approximately parallel support and resistance lines that contain price movement. A rising channel reflects a sequence of generally higher prices, whereas a flat, or horizontal, channel indicates that price is moving sideways within a relatively stable range. The transition from an upward channel to a flat channel signals that the prior upward momentum has paused, but it does not by itself establish that a downward trend has begun.

Technical analysis generally seeks confirmation from subsequent price action. Therefore, an analyst holding a stock would commonly monitor the horizontal channel rather than automatically act on the initial loss of the rising trend. A downside break below the channel's support boundary can provide evidence that sellers have gained control and that a declining trend may be developing. Until such confirmation occurs, retaining the position and observing whether price resumes its advance,

remains range-bound, or breaks downward is consistent with trend-following practice. See the CFA Institute's overview of technical analysis and CFI's discussion of trendlines and price channels.

QUESTION NO: 71

Within the simple Keynesian model, when an economy operates below its long-run, full employment output constraint, an increase in aggregate demand will lead to an

A. increase in unemployment.

B. increase in prices.

C. increase in interest rates and money income, but employment and real income will remain constant.

D. increase in employment, output and real income.

ANSWER: D

Explanation:

"increase in employment, output and real income.

" is correct because the simple Keynesian model assumes that, when the economy has unused productive capacity and unemployment, firms can respond to higher aggregate demand by increasing production rather than by raising the general price level. Greater planned spending causes businesses to sell more goods and services, leading them to expand output. To produce that additional output, businesses hire more workers or increase the use of underemployed labor, so employment rises and unemployment falls.

In national-income accounting, output and real income are equivalent measures of the value of final production. Therefore, as real output expands in response to the increase in aggregate demand, real income also increases. This is the central short-run adjustment in the Keynesian-cross framework: equilibrium output changes to bring planned expenditure and production into balance. The expenditure multiplier may further amplify the initial increase in autonomous demand as one person's spending becomes another person's income and induces additional consumption. The conclusion depends on the stated condition that output is below full-employment capacity; it provides the slack needed for employment, output, and real income to rise together. See the IMF overview of Keynesian economics and OpenStax's discussion of aggregate supply and output.

QUESTION NO: 72

Which of the following is/are true about computation of Basic EPS?

I. With stock splits and stock dividends, previously reported EPS numbers are retroactivelyreadjusted.

II. Shares issued for the acquisition of another business are included from the date of issuance.III. Shares issued in pooling of interests are assumed to have been outstanding at the beginning of all the periods reported.

A. II & III

B. I, II & III

C. I & III

D. I only

E. With stock splits and stock dividends, previously reported EPS numbers are retroactivelyreadjusted.
II. Shares issued for the acquisition of another business are included from the date of issuance.III. Shares issued in pooling of interests are assumed to have been outstanding at the beginning of all the periods reported.

ANSWER: B

Explanation:

I, II & III is correct. Basic EPS uses profit or loss attributable to ordinary equity holders divided by the weighted-average number of ordinary shares outstanding during the reporting period. A stock split or stock dividend changes the number of shares without a corresponding change in the entity's resources. To preserve comparability, EPS for the current and comparative periods is adjusted retrospectively as though the split or stock dividend had occurred at the beginning of the earliest period presented.

When ordinary shares are issued as consideration for acquiring another business, they are included in the weighted-average share count from the acquisition date. This aligns the denominator with the point from which the acquired business's results are included in the acquirer's earnings. In the historical pooling-of-interests framework referenced by the question, the combining entities were presented as if they had always operated as one combined entity; consequently, the shares issued in the combination were treated as outstanding from the beginning of all periods presented. Although pooling of interests is generally not permitted under current IFRS or US GAAP business-combination rules, this is the appropriate EPS treatment for a question applying that legacy method. See IAS 33, Earnings per Share and IFRS 3, Business Combinations.

QUESTION NO: 73

If you need $25,000 in 10 years, how much must you deposit today, if your money will earn 6% per year, compounded annually?

A. $25,000

B. $13,959.87

C. $2,320.01

D. $44,771.19

E. $23,200.08

ANSWER: B

Explanation:

The correct present deposit is **$13,959.87**. This is a present-value calculation: the required $25,000 is the future value, and it must be discounted back 10 annual compounding periods at an annual rate of 6%. The applicable relationship is present value = future value ÷ $(1 + \text{annual rate})^{\text{number of years}}$. Substituting the figures gives $\$25{,}000 \div (1.06)^{10}$, which equals approximately $13,959.87. Depositing this amount today and allowing it to compound annually at 6% produces approximately $25,000 at the end of year 10. The calculation assumes no interim deposits or withdrawals and that the stated annual return is earned consistently for each full year. On a financial calculator, enter the 10-year period, 6% annual interest rate, zero periodic payment, and $25,000 future value, then compute present value. A calculator may display the present value as negative because of the standard cash-flow sign convention: the initial deposit is a cash outflow, while the future amount received is an inflow. For further background on discounting future cash flows to present value, see Investopedia's present value overview and Corporate Finance Institute's present value guide.

QUESTION NO: 74

Contrarians assume that:

A. you should bet against "smart money."

B. Past winners will lose in the future.

C. the majority of investors are wrong.

D. the market moves against the trend.

ANSWER: C

Explanation:

"the majority of investors are wrong." is correct because contrarian investing is based on the view that widespread investor sentiment can become excessively optimistic near market highs and excessively pessimistic near market lows. When a large majority of market participants share the same bullish or bearish expectation, their collective buying or selling may already be largely reflected in prices. A contrarian therefore monitors indicators of broad market sentiment, such as highly bullish or bearish survey results, and may take a position opposite to the prevailing consensus when sentiment reaches an extreme. The approach does not mean that consensus opinion is always incorrect or that an investor should automatically trade against every market trend. Instead, it rests on the assumption that the crowd is most likely to be mistaken at important cyclical turning points, when enthusiasm or fear is unusually pervasive. This principle is consistent with behavioral-finance concepts: investors can be influenced by herding, overreaction, and emotion, causing prices to deviate from fundamental value. CFA Institute discusses behavioral biases and their effects on investment decisions in its Behavioral Finance refresher reading. A related overview of investor sentiment and contrarian investing is available from Investopedia's contrarian investing definition.

QUESTION NO: 75

If the money supply is held constant, an increase in nominal GDP leads to _____ in the velocity of money.

A. all of these answers are possible.

B. no change

C. a decrease

D. an increase

ANSWER: D

Explanation:

An increase is correct. The quantity equation of money is expressed as $M \times V = P \times Y$, where M is the money supply, V is the velocity of money, and $P \times Y$ is nominal GDP. Equivalently, velocity can be calculated as nominal GDP divided by the money supply: $V = \textit{nominal GDP} / M$. Therefore, if the money supply is held constant and nominal GDP rises, velocity must rise proportionately. This is a direct mathematical implication of the definition of velocity in the quantity equation.

Economically, velocity measures the average frequency with which a unit of money is used for transactions over a period. With no additional money available but a greater total dollar value of final goods and services produced, the existing stock of money must support more spending. Each dollar consequently changes hands more often, which is an increase in velocity. This relationship concerns nominal, rather than real, GDP because the equation tracks monetary transaction values. The Federal Reserve Bank of St. Louis describes velocity as the ratio of nominal GDP to the money stock and provides data series based on this definition. See the FRED M2 Velocity series and the Federal Reserve's overview of monetary aggregates.

QUESTION NO: 76

The change in _____ is a compound effect of changes in wages per hour and changes in worker productivity.

A. the rate of inflation

B. unit labor costs

C. foreign competition

D. the profit margin

ANSWER: B

Explanation:

unit labor costs is correct because unit labor cost measures the labor expense required to produce one unit of output. It is determined jointly by compensation per hour and output per hour worked (labor productivity). In simplified terms, unit labor cost equals hourly labor compensation divided by labor productivity. Therefore, its rate of change reflects the combined—or compound—effect of changes in hourly wages and changes in worker productivity.

For example, if wages per hour rise while productivity is unchanged, the labor cost embodied in each unit of output rises. Conversely, productivity growth can offset some or all of an increase in hourly compensation because more output is produced for each hour of labor. This relationship makes unit labor costs a useful measure of a country's cost competitiveness, particularly when comparing the relative production costs of firms or economies over time. Analysts commonly examine unit labor cost growth alongside productivity and compensation trends when assessing inflationary cost pressures and international competitiveness. The U.S. Bureau of Labor Statistics describes unit labor costs as the ratio of hourly compensation to productivity: BLS Labor Productivity FAQs. The OECD also publishes unit labour cost indicators for international economic comparison: OECD Unit Labour Costs.

QUESTION NO: 77

Monte Carlo simulation

A. All of the answers are correct.

B. Is capable of using probability distributions for variables as input data instead of a single numerical estimate for each variable.

C. Produces both an expected NPV (or IRR) and a measure of the riskiness of the NPV or IRR.

D. None of the answers are correct.

E. Can be useful for estimating a project's stand-alone risk.

ANSWER: A

Explanation:

"All of the answers are correct." is correct because Monte Carlo simulation evaluates a capital-budgeting outcome by repeatedly sampling uncertain input variables from specified probability distributions and calculating the resulting project outcome, such as NPV or IRR, in each iteration. Rather than limiting each uncertain driver—such as unit sales, price, variable cost, or discount rate—to one point estimate, the analyst can model the range and likelihood of possible values. The simulation output is therefore a distribution of potential NPVs or IRRs. From that distribution, an analyst can estimate an expected outcome as well as risk measures, including dispersion, the probability that NPV is below zero, and percentile outcomes. These features make Monte Carlo analysis useful for assessing a project's stand-alone risk: the uncertainty inherent in the project's own cash flows, without requiring that risk first be expressed through its relationship to a broader portfolio. This application follows the general simulation approach described by the CFA Institute's Capital Budgeting refresher reading and is consistent with the Monte Carlo simulation overview.

QUESTION NO: 78

If the 1% level of significance is used and the computed value of z is +6.00, what is our decision?

A. Do not reject Ho

B. None of these answers

C. Reject Ho

D. This cannot be answered

ANSWER: C

Explanation:

“Reject Ho

” is correct because a computed z-statistic of +6.00 is far into the upper tail of the standard normal distribution. At a 1% significance level, the relevant critical z-value is approximately +2.326 for an upper-tailed test. Even if the test were two-tailed, the positive critical boundary would be approximately +2.576. Since +6.00 exceeds either applicable positive critical value by a substantial margin, the test statistic lies in the rejection region.

Equivalently, the probability of observing a z-statistic at least as extreme as +6.00 under the null hypothesis is extraordinarily small—well below 0.01. Therefore, the evidence against the null hypothesis is sufficient at the stated significance level, and the appropriate decision is to reject it. Critical values and tail probabilities for the standard normal distribution are based on the cumulative standard normal distribution; see the NIST standard normal distribution reference and the NIST hypothesis-testing overview.

QUESTION NO: 79

According to the AIMR-PPS, all actual fee-paying discretionary portfolios must be included in at least one composite defined according to

A. managerial style of investment portfolio.

B. similar strategy or investment objective.

C. size of investment portfolio.

D. date of portfolio inception.

ANSWER: B

Explanation:

“similar strategy or investment objective” is correct because the AIMR Performance Presentation Standards, the predecessor to the Global Investment Performance Standards (GIPS), require firms to construct composites that represent a distinct, consistently managed investment mandate. A composite groups actual discretionary, fee-paying portfolios that are managed under the same or substantially similar strategy or objective. For example, portfolios managed to a large-cap growth equity mandate should be assigned to a composite reflecting that mandate, rather than being grouped according to an incidental characteristic such as their asset size or start date.

This required inclusion supports fair representation and full disclosure in performance reporting. It prevents a firm from selectively omitting portfolios whose results would affect the reported track record of a strategy. It also gives prospective clients a meaningful performance history for the specific type of investment service being evaluated. The GIPS framework retains this core principle: firms must define composites according to similar investment mandates, objectives, or strategies and include all actual, discretionary portfolios managed in those composites. The CFA Institute’s current GIPS resources explain the standards and their objective of comparable, credible investment-performance presentation: GIPS Standards for Firms and CFA Institute GIPS Standards overview.

QUESTION NO: 80

If the spread between the required rate of return and the anticipated dividend growth rate were to decrease significantly and suddenly while the remaining components of the P/E ratio were to remain unchanged, which of the following would likely occur? Further, a decrease in the retention rate would lead to what effect on the earnings multiplier, holding both k and g constant?

A. The earnings multiplier would increase; the earnings multiplier would increase.

B. The earnings multiplier would decrease; the earnings multiplier would decrease.

C. The earnings multiplier would increase; the earnings multiplier would either increase or decrease depending on the firm's ROE compared to its cost of capital.

D. The earnings multiplier would increase; the earnings multiplier would decrease.

E. The earnings multiplier would decrease; the earnings multiplier would increase.

ANSWER: A

Explanation:

The earnings multiplier would increase; the earnings multiplier would increase. Under the Gordon growth framework, the justified leading price-to-earnings ratio can be expressed as P/E = (D/E)/(k − g), where D/E is the dividend payout ratio, k is the required return, and g is the expected sustainable dividend-growth rate. If the difference between required return and anticipated growth narrows, the denominator becomes smaller. With the payout ratio and all other inputs unchanged, dividing by that smaller positive denominator produces a larger earnings multiplier. This denominator effect also explains why justified P/E values can be highly sensitive to changes in required return or expected long-term growth.

A lower retention rate means the company retains a smaller fraction of earnings for reinvestment. Since retention rate equals one minus the dividend payout ratio, a reduction in retention directly increases the payout ratio. When both k and g are explicitly held constant, that higher payout ratio increases the numerator of the justified P/E formula, resulting in a higher earnings multiplier. The conclusion follows from the valuation identity without making an additional assumption about whether altered retention would ordinarily affect future growth. See the Gordon-model discussion from NYU Stern and the dividend-discount-model overview at Corporate Finance Institute.

QUESTION NO: 81

Consider the following three investments with annual compounding:

Present value years interest rate

1.$22,500 56% per year

2.$10,000 75% per year

3.$15,000 38% per year

The future values of the 3 investments, at the ends of their investment periods, are:

A. $26,454, $12,067, $17,181

B. $23,850, $10,500, $16,200

C. $30,110, $14,071, $18,896

D. $16,813, $7,107, $11,907

ANSWER: C

Explanation:

The correct future-value set is **$30,110, $14,071, $18,896**. With annual compounding, the future value of a lump-sum investment is calculated as $FV = PV(1 + r)^N$, where PV is the present value, r is the annual interest rate expressed as a decimal, and N is the number of annual compounding periods. The formatting in the question combines the years and rates, so the first investment uses five years at 6%, the second uses seven years at 5%, and the third uses three years at 8%.

Accordingly, the first value is $\$22,500(1.06)^5 = \$30,110.14$, which rounds to $30,110. The second is $\$10,000(1.05)^7 = \$14,071.00$, or $14,071. The third is $\$15,000(1.08)^3 = \$18,895.68$, which rounds to $18,896. This application of the time value of money reflects that each year's interest is earned on both the original principal and interest accumulated in prior years. The CFA Program curriculum includes time value of money as a foundational quantitative concept; see the CFA Program curriculum overview and the SEC compound-interest calculator.

QUESTION NO: 82

Given that the real risk-free rate is 5%, the rate of inflation is 7%, and the growth in money supply is 9%, what is the exact nominal risk-free rate?

A. 14.5%

B. 14%

C. 12%

D. Not enough information.

E. 12.4%

F. 12.35%

ANSWER: F

Explanation:

The correct exact nominal risk-free rate is **12.35%**. The nominal risk-free rate incorporates both the real risk-free return and the loss of purchasing power expected from inflation. Using the multiplicative form of the Fisher relation, calculate it as (1 + real risk-free rate) × (1 + inflation rate) − 1. Substituting the stated rates gives (1.05 × 1.07) − 1 = 0.1235, or 12.35%. This is the exact result because it includes the interaction term between real growth and inflation: 5% × 7% = 0.35%. Simply adding the two rates produces 12%, which is an approximation rather than the exact nominal rate. Growth in the money supply is not an input to this calculation when the expected inflation rate is already explicitly provided. In economic analysis, money-supply growth may help inform expectations about inflation, but it does not alter the Fisher-equation calculation once inflation is known. The Federal Reserve discusses the distinction between nominal and real interest rates in its frequently asked questions on interest rates, and the Fisher relationship is summarized by the International Monetary Fund.

QUESTION NO: 83

_____ is a position in which, if a property's return is in excess of its debt cost, the investor's return will be increased to a level well above what could have been earned from an all-cash real estate deal.

A. Positive leverage

B. None of these answers

C. Excess financing

D. Negative leverage

ANSWER: A

Explanation:

Positive leverage is the correct term. In a real estate investment, leverage arises when an investor uses borrowed funds in addition to equity to acquire a property. It is positive when the property’s return on invested capital exceeds the effective cost of debt financing. Because the investor earns a higher return on the property’s assets than is paid to lenders, the residual return attributable to the investor’s smaller equity contribution is magnified. Thus, compared with purchasing the same property entirely with cash, positive leverage can produce a substantially higher return on equity.

The outcome depends on the relationship between the property’s operating return and borrowing cost, as well as the amount of debt used. For example, when a property generates income at a rate above the mortgage interest rate, debt can amplify the equity investor’s gains after debt-service obligations are met. This reflects the general finance principle that borrowing can enhance equity returns when asset returns exceed financing costs. CFA Institute’s discussion of real estate recognizes that debt financing affects both the expected return and risk of equity investment in real estate. See CFA Institute: Real Estate Investments and Investopedia: Leverage.

QUESTION NO: 84

If the overall price trend of the market has been down, the moving-average line would generally lie _____ current prices.

A. can't be determined without further information

B. below

C. on

D. above

ANSWER: D

Explanation:

In a declining market, the moving average would generally lie **above** current prices. A moving average is calculated from a specified number of prior price observations, so it is a lagging trend indicator rather than a measure based solely on today's price. When prices have been falling over the averaging period, the earlier observations included in the calculation will usually be higher than the most recent market price. Their inclusion keeps the calculated average above the current price until enough lower, newer prices enter the calculation for the average to decline further.

This relationship is the basis for a common technical-analysis interpretation: when market price is below a moving average, it is consistent with downward price momentum or a downtrend over the relevant lookback period. The word "generally" is important because the precise position depends on the selected averaging period and the pattern of price changes, but for an overall downward trend the expected relationship is an average above the latest price. Moving averages are therefore useful for smoothing daily price fluctuations and identifying the underlying direction of a trend. See the CFA Institute's overview of technical analysis and the explanation of moving averages from Investor.gov.

QUESTION NO: 85

Carl Vandenberg has been asked to explain the security market line (SML), including its slope.

Which of the following is equal to the slope of the SML?

A. Beta.

B. Alpha.

C. Market risk premium.

ANSWER: C

Explanation:

Market risk premium. is correct because the security market line expresses the required return for an asset as a linear function of its systematic risk, measured by beta: required return = risk-free rate + beta × (expected market return − risk-free rate). On a graph of expected or required return on the vertical axis and beta on the horizontal axis, the risk-free rate is the intercept, because an investment with a beta of zero has a required return equal to the risk-free rate. The coefficient on beta determines how much required return rises for each one-unit increase in beta. That coefficient is the expected market return less the risk-free rate, which is the market risk premium. Accordingly, the SML's slope represents the incremental return investors require for bearing one additional unit of systematic market risk. A larger market risk premium produces a steeper SML, while a smaller premium produces a flatter line. This relationship is the central pricing implication of the capital asset pricing model and is used to estimate an asset's required return from its beta. See the CFA Institute's portfolio risk and return refresher and the OpenStax CAPM overview.

QUESTION NO: 86

Externalities:

I. are spill-over effects of a project.

II. are not necessarily harmful and can actually be beneficial.

III. should be ignored in project evaluation, just as sunk costs are.

A. I, II & III

B. II & III

C. I & II

D. I & III

E. I only

F. III only

G. II only

H. are spill-over effects of a project.
II. are not necessarily harmful and can actually be beneficial.
III. should be ignored in project evaluation, just as sunk costs are.

ANSWER: C

Explanation:

I & II is correct because an externality is an effect of a project that extends beyond the project's direct, stand-alone cash flows. In capital budgeting, the relevant concept is commonly described as a spillover effect: undertaking a project can change cash flows elsewhere in the firm or, more broadly, affect other parties. These effects may reduce value, such as when a new product cannibalizes sales of an existing product, but they can also create value. For example, a new product line may strengthen brand recognition, generate complementary sales, or allow the firm to use capacity more efficiently. Thus, externalities are not inherently harmful; beneficial spillovers are positive externalities.

The key valuation principle is that project analysis uses incremental cash flows—the changes in total cash flow caused by accepting the project. Since an externality can cause such a change, its expected cash-flow impact belongs in the project evaluation. This treatment follows the capital-budgeting focus on incremental cash flows described by CFA Institute's capital budgeting refresher reading. The distinction from sunk costs is important: sunk costs have already been incurred and cannot be changed by the current decision, whereas external effects arise because of the project decision and can affect future value. See also Corporate Finance Institute's overview of capital budgeting.

QUESTION NO: 87

Assume that a firm has a degree of financial leverage of 1.25. If sales increase by 20 percent, the firm will experience a 60 percent increase in EPS, and it will have an EBIT of $100,000. What will be the EBIT for this firm if sales do not increase?

A. $42,115

B. $84,375

C. $67,568

D. $100,000

E. $113,412

ANSWER: C

Explanation:

$67,568 is correct. Degree of financial leverage (DFL) measures the sensitivity of earnings per share to changes in EBIT: DFL equals the percentage change in EPS divided by the percentage change in EBIT. With EPS increasing by 60% and DFL equal to 1.25, the associated percentage increase in EBIT is 60% ÷ 1.25 = 48%.

The stated EBIT of $100,000 is the EBIT after the sales increase and the resulting 48% increase in EBIT. Therefore, this amount represents 148% of the EBIT level that would have existed without the sales increase. The baseline EBIT is consequently $100,000 ÷ 1.48 = $67,567.57, which rounds to $67,568.

This result is also consistent with the operating and financial leverage framework. The degree of total leverage is 60% ÷ 20% = 3.0, and dividing it by the DFL of 1.25 gives a degree of operating leverage of 2.4. A 20% sales increase would then produce a 48% EBIT increase (2.4 × 20%), leading to the same baseline calculation. CFA curriculum coverage of leverage and its effect on earnings is included in the CFA Program Curriculum; see also CFA Institute's Refresher Readings for corporate issuer analysis concepts.

QUESTION NO: 88

Brokers who knowingly or recklessly engage in excessive trading in customers' accounts are known to be _____.

A. over-selling

B. mixing

C. churning

D. none of these answers

E. shingling

ANSWER: C

Explanation:

"churning" is correct. Churning occurs when a broker exercises control over a customer's account and engages in excessive securities transactions primarily to generate commissions or other compensation, rather than to serve the client's investment objectives. The conduct may violate federal securities laws and Financial Industry Regulatory Authority rules because brokerage professionals must deal fairly with customers and recommend transactions consistent with the customer's profile and needs. Whether trading is excessive is assessed in context, including the account's size, investment goals, turnover, transaction costs, and the frequency and pattern of trades. A broker need not have written discretionary authority to control an account; practical control can exist when a customer routinely relies on the broker's recommendations. The key concept tested by the question is the recognized term for knowingly or recklessly causing this excessive activity in a customer account: churning. See the U.S. Securities and Exchange Commission's investor guidance on churning and the Financial Industry Regulatory Authority's overview of churning and excessive trading.

QUESTION NO: 89

Holding other things constant, an increase in a firm's ROE will

A. have no effect on the firm's expected growth rate.

B. decrease the earnings multiplier.

C. increase the earnings multiplier.

D. decrease the firm's expected growth rate.

ANSWER: C

Explanation:

"increase the earnings multiplier." is correct. Return on equity measures the profitability generated from shareholders' invested capital. Under the sustainable-growth relationship, expected growth is determined by ROE multiplied by the earnings retention rate: g = ROE × b. Therefore, holding the retention rate and all other valuation inputs constant, a higher ROE produces a higher expected growth rate for earnings and dividends.

In the dividend discount model, the justified leading price-to-earnings multiplier can be expressed as $P_0/E_1 = (1 - b)/(r - g)$, where b is the retention rate, r is the required return on equity, and g is the expected growth rate. As ROE rises, g rises; with the required return unchanged, the difference between r and g narrows. This increases the present value assigned to the firm's future earnings and dividends and thus increases its justified earnings multiplier. This result assumes the higher ROE is sustainable and that the firm can reinvest retained earnings at that return. See CFA Institute's overview of equity valuation concepts at CFA Institute Refresher Readings and the sustainable-growth discussion from NYU Stern.

QUESTION NO: 90

The following information is from the financial statements of Complex Capitalists for 1997 and 1998:

Dec. 31, 1997 - 1 million common shares outstanding, capital structure all-equity March 31, 1998 - issued 200,000 common shares.

May 31, 1998 - issued 800,000 warrants exercisable at a strike of 35.

The stock price on Dec. 31, 1998 was 37. The average price during 1998 was 34 and the maximum price was 39. How many shares will the basic EPS computation for 1998 use?

A. 2.0 million

B. 1.15 million

C. 1.2 million

D. 1.617 million

ANSWER: B

Explanation:

1.15 million is the weighted-average number of shares used in the 1998 basic EPS calculation. Basic EPS uses common shares actually outstanding during the reporting period, weighted for the fraction of the year each share amount was outstanding. Complex Capitalists had 1,000,000 common shares outstanding at the beginning of the year. The additional 200,000 shares issued on March 31 were outstanding for the remaining nine months of 1998, so their weighted contribution is 200,000 × 9/12, or 150,000 shares. Adding that amount to the original 1,000,000 shares produces 1,150,000 weighted-average common shares. Warrants are not common shares outstanding and therefore are not included in basic EPS. Potential common shares such as warrants are evaluated only in diluted EPS, using the applicable dilution methodology and market-price information. The underlying principle is that basic EPS reflects the period-weighted ownership interests represented by actual common shares. IAS 33 describes basic EPS as profit or loss attributable to ordinary equity holders divided by the weighted-average number of ordinary shares outstanding during the period; see the IAS 33 standard overview and Deloitte's IAS 33 summary.

QUESTION NO: 91

Venture capital has proved to impact economic development in the following ways:

A. all of these are correct

B. job development

C. competitive adaptation

D. formation of capital

E. none of these is correct

F. technological innovation

ANSWER: A B C D F

Explanation:

“All of these are correct” is correct because venture capital supports each of the listed channels of economic development: job development, competitive adaptation, formation of capital, and technological innovation. Venture capital supplies equity financing to young, high-growth businesses that may not yet have the collateral, cash flow, or operating history required for conventional borrowing. This funding contributes directly to capital formation by directing investable funds toward productive enterprises and expansion projects.

Venture-backed firms also create employment as they build teams, scale operations, and commercialize products. Beyond financing, venture capital investors commonly provide governance, strategic guidance, industry networks, and assistance with subsequent fundraising. These resources can help firms respond to changing market conditions and compete more effectively, supporting competitive adaptation. Because venture investment is concentrated in businesses pursuing new products, processes, and scalable technologies, it can accelerate technological innovation and the diffusion of new solutions across the economy. These effects are particularly relevant in sectors such as software, life sciences, and clean technology, where substantial early investment is often needed before revenues become stable. The OECD discusses the role of venture capital in financing innovative young firms at OECD: Venture capital. Additional research on venture capital’s economic role is available from NVCA Yearbook.

QUESTION NO: 92

Which of the following is/are disadvantages of stock repurchases?

I. If investors are not indifferent between dividends and capital gains, regular repurchase programscould drive them away.

II. The IRS could tax the firm for improper accumulation of capital gains if it felt regular repurchaseprograms had taken the place of dividends.

III. The firm might end up paying a higher than fair price if it commits to a repurchase program.

A. II & III

B. I & III

C. III only

D. II only

E. I only

F. I, II & III

G. If investors are not indifferent between dividends and capital gains, regular repurchase programscould drive them away.
II. The IRS could tax the firm for improper accumulation of capital gains if it felt regular repurchaseprograms had taken the place of dividends.
III. The firm might end up paying a higher than fair price if it commits to a repurchase program.

ANSWER: F

Explanation:

I, II & III is correct because each statement identifies a potential limitation of using share repurchases as a continuing payout method. Investors may have preferences for the timing and certainty of cash dividends rather than capital gains generated through repurchases. A firm that systematically favors repurchases can therefore be less attractive to shareholders who depend on regular dividend income, particularly where taxes, clienteles, or cash-flow needs make dividends and capital gains noninterchangeable.

There can also be tax-policy concerns when a corporation retains earnings and uses distributions structured as repurchases in a manner intended to avoid ordinary shareholder-level dividend taxation. In the United States, the relevant concept is generally the accumulated earnings tax, which may apply when a corporation accumulates earnings beyond its reasonable business needs to avoid shareholder income tax. The IRS describes this framework in its Accumulated Earnings Tax guidance.

Finally, repurchases can create an execution risk: a company buying a significant quantity of thinly traded shares, or committing to purchases during an overvalued period, may push the market price upward and pay more than intrinsic value. CFA Institute's overview of payout policy recognizes repurchases as an alternative distribution mechanism with distinct practical considerations: Corporate Issuers.

QUESTION NO: 93

Which of the following choices correctly describes a project which will direct the operations of a company into a new market or functional niche, is primarily enacted to expand revenues, and one in which the firm does not have an existing proxy?

A. Marginal project

B. Extraordinary item

C. Retrenchment project

D. Replacement project

E. Expansion project

ANSWER: E

Explanation:

An expansion project is correct because it is a capital-budgeting investment undertaken to increase a firm's scale of operations, such as entering a new geographic market, adding a product line, increasing production capacity, or moving into a new business function. Its central purpose is to generate additional future revenues and cash flows rather than merely continue the firm's present operations. Because the activity is new, there is generally no current asset, product, or operating unit that serves as a direct benchmark for the proposed investment. Analysts therefore estimate the project's incremental after-tax cash flows based on the new initiative itself, including initial investment, expected operating cash flows, working-capital requirements, and terminal cash flows. This classification helps frame the relevant capital-budgeting analysis: the decision should be based on cash flows that occur only if the new expansion is accepted. CFA Institute's curriculum identifies capital investments intended to expand into new products or markets as expansion projects and emphasizes evaluating investments through incremental cash-flow analysis. See the CFA Institute overview of the capital budgeting process and the OpenStax discussion of capital budgeting.

QUESTION NO: 94

You are examining a group of 6 stocks. Their average annual standard deviations have been 25%, 20%, 15%, 25%, 16%, and 45%. What is the range of annual standard deviations?

A. 25.0%.

B. 15.0%.

C. 30.0%.

D. 29.0%.

ANSWER: C

Explanation:

The correct answer is **30.0%.** The range is a simple descriptive-statistics measure showing the total spread from the smallest observation to the largest observation in a data set. It is calculated as the maximum value minus the minimum value. Among the six annual standard deviations given, the highest value is 45% and the lowest value is 15%. Therefore, the range is 45% − 15% = 30%.

In an investment context, standard deviation measures the dispersion of returns around their mean and is commonly used as an indicator of total risk. Calculating the range of standard deviations does not measure the risk of any particular stock or portfolio; instead, it summarizes how widely the reported volatility levels vary across the group of stocks. The result should

be expressed in percentage points, although it is conventionally displayed here as 30.0%. For background on range as a measure of dispersion, see Encyclopaedia Britannica: Range. For CFA Institute's overview of quantitative methods and descriptive statistics in investment analysis, see CFA Institute: Quantitative Methods.

QUESTION NO: 95

Firm A has just paid a cash dividend of $6.2 per share. If the growth rate is expected to be 6% and the price of the stock is $24.90, the expected return on the stock is:

A. 32.39%

B. 26.39%

C. 20.39%

D. 24.90%

ANSWER: A

Explanation:

The correct answer is **32.39%**. Under the constant-growth dividend discount model, also called the Gordon growth model, the required or expected return is calculated as the next period's expected dividend yield plus the constant dividend growth rate: $r = D_1/P_0 + g$. The dividend of $6.20 has just been paid, so it is the most recent dividend, D_0, rather than the forward dividend needed in the model. First calculate D_1: $6.20 × 1.06 = $6.572. Next calculate the forward dividend yield: $6.572 ÷ $24.90 = 0.26394, or 26.394%. Adding the assumed perpetual growth rate of 6.00% gives 32.394%, which rounds to 32.39%.

This return represents the rate investors require for holding the firm's common equity given the current market price, the expected next dividend, and the stated constant growth assumption. The calculation relies on the model's central assumptions that dividends grow indefinitely at a stable rate and that the required return exceeds the growth rate. For an overview of dividend-discount valuation, see NYU Stern's valuation resources and the CFA Institute equity valuation refresher reading.

QUESTION NO: 96

International Transport Company is considering building a new facility in Seattle. If the company goes ahead with the project, it will spend $2 million immediately (at t = 0) and another $2 million at the end of Year 1 (t = 1). It will then receive net cash flows of $1 million at the end of Years 2 - 5, and it expects to sell the property for $2 million at the end of Year 6. The company's cost of capital is 12 percent, and it uses the modified IRR criterion for capital budgeting decisions. Which of the following statements is most correct?

A. The regular IRR is less than the cost of capital. Under this condition, the modified IRR will also be less than the regular IRR.

B. The project should be accepted because the modified IRR is greater than the cost of capital.

C. If the regular IRR is less than the cost of capital, then the modified IRR will be greater than the regular IRR. That situation applies in this case.

D. The project should be rejected because the modified IRR is less than the regular IRR.

E. Given the data in the problem, the modified IRR criterion indicates that the project should be accepted. However, the NPV is negative. This demonstrates that the modified IRR criterion is not always a valid decision method for projects such as this one.

ANSWER: C

Explanation:

“If the regular IRR is less than the cost of capital, then the modified IRR will be greater than the regular IRR. That situation applies in this case.” is correct. Under the modified IRR (MIRR) approach, negative cash flows are discounted to the initial date using the financing rate, while positive cash flows are compounded to the project’s terminal date using the reinvestment rate. Here, both rates are the 12% cost of capital. The present value of the two outflows is approximately $3.786 million. Compounding the four $1 million operating inflows through Year 6 and adding the $2 million sale proceeds gives a terminal value of approximately $7.353 million. Therefore, MIRR is approximately [(7.353 / 3.786)^(1/6)] − 1 = 11.7%.

The project’s MIRR is below the 12% required return, so its conventional IRR is also below 12%. When the reinvestment rate used in MIRR exceeds the project’s regular IRR, compounding the interim positive cash flows at that higher rate produces an MIRR above the regular IRR. Thus, this project has an MIRR of about 11.7%, which is greater than its regular IRR but remains below the cost of capital. MIRR is designed to provide a more economically realistic reinvestment assumption than the conventional IRR method. See CFA Institute: Capital Budgeting and Corporate Finance Institute: Modified Internal Rate of Return.

QUESTION NO: 97

Assume a project has normal cash flows (that is, the initial cash flow is negative, and all other cash flows are positive). Which of the following statements is most correct?

A. All else equal, a project's IRR increases as the cost of capital declines.

B. All else equal, a project's NPV decreases as the cost of capital declines.

C. All else equal, a project's NPV increases as the cost of capital declines.

D. All else equal, a project's MIRR is unaffected by changes in the cost of capital.

E. None of the answers are correct.

ANSWER: C

Explanation:

All else equal, a project's NPV increases as the cost of capital declines. Net present value is the sum of each expected future cash flow discounted to time zero, less the initial investment. For a project with normal cash flows, the initial outlay is negative and occurs immediately, while the subsequent expected cash flows are positive. Lowering the cost of capital lowers the discount rate applied to those future positive cash flows. Consequently, their present values rise, while the time-zero initial investment remains unchanged. The result is a higher NPV.

This relationship is central to capital budgeting: the cost of capital represents the required return used to evaluate whether projected project cash flows create value. A project whose NPV is positive is expected to generate value above the return required by its providers of capital. Conversely, a higher required return reduces the present value assigned to future cash flows. The CFA Institute curriculum describes NPV as the present value of expected incremental after-tax cash flows discounted at the opportunity cost of capital, supporting the direct inverse relationship between the discount rate and NPV for this cash-flow pattern. See the CFA Institute capital budgeting refresher reading and OpenStax’s NPV-method overview.

QUESTION NO: 98

A firm is purchased for more than the fair market value of its assets. The excess is:

A. written off against the retained earnings on the balance sheet.

B. treated as an extraordinary loss & presented net of taxes on the income statement.

C. considered as "Goodwill."

D. considered a "premium paid" and amortized over the life of the acquired assets.

ANSWER: C

Explanation:

The excess is considered as “Goodwill.” In a business combination, the acquirer measures the identifiable assets acquired and liabilities assumed at their acquisition-date fair values. When the consideration transferred for the acquired business exceeds the fair value of the identifiable net assets, the residual amount is recognized as goodwill. Goodwill represents the expected future economic benefits arising from assets that cannot be separately identified and individually recognized, such as an assembled workforce, established customer relationships, operating synergies, reputation, and expected growth opportunities. It is therefore an acquisition-related asset rather than an immediate expense or a direct adjustment to equity.

For financial reporting, goodwill is initially recognized on the balance sheet at the acquisition date. Under current U.S. GAAP, goodwill generally is not amortized for public business entities; instead, it is tested for impairment at least annually and whenever events or circumstances indicate that its carrying amount may not be recoverable. IFRS likewise requires annual impairment testing for goodwill. The essential point is that an acquisition price above the fair value of identifiable net assets creates goodwill. See IFRS 3, Business Combinations and the FASB Accounting Standards Codification.

QUESTION NO: 99

Which of the following are necessary conditions for the NPV and IRR methods to produce similar rankings? Choose the best possible answer.

A. Projects must be mutually exclusive and of equal scale

B. Projects must be independent and have normal cash flows

C. Projects must be mutually exclusive and have normal cash flows

D. Projects must have normal cash flows, and must be equal in scale and lifespan

E. Projects must be of equal scale and have equal lifespans

ANSWER: D

Explanation:

Projects must have normal cash flows, and must be equal in scale and lifespan is the best answer because it identifies the project characteristics that reduce the principal sources of conflict between net present value and internal rate of return rankings. Normal, or conventional, cash flows have one initial cash outflow followed by cash inflows, so the IRR is generally unique and can be interpreted as a meaningful return measure. When projects are comparable in investment scale, neither method is distorted by one project being much larger and producing a substantially greater total dollar value. Equal lifespans also make the timing horizon directly comparable, without requiring a replacement-chain or equivalent-annual-annuity adjustment. Under these conditions, the cash-flow patterns and timing are sufficiently alike that NPV and IRR will generally rank competing capital-budgeting opportunities consistently. This is especially useful when management is comparing alternatives that serve the same purpose. NPV remains the economically preferred decision criterion because it measures the expected increase in shareholder wealth in currency terms and discounts cash flows at the required rate of return. For a discussion of NPV and IRR in capital budgeting, see CFA Institute’s Capital Budgeting refresher reading and OpenStax’s discussion of NPV and IRR.

QUESTION NO: 100

Standard III includes which of the following?

A. Performance Presentation

B. All of these answers

C. None of these answers

D. Reasonable Basis and Representations

E. Disclosure of Additional Compensation Arrangements

F. Use of Professional Designation

ANSWER: A

Explanation:

Performance Presentation is included in Standard III, Duties to Clients. More specifically, Standard III(D), Performance Presentation, requires CFA Institute members and CFA Program candidates to make reasonable efforts to ensure that performance information communicated to clients or prospective clients is fair, accurate, and complete. This duty supports informed client decision-making because investment performance can be presented over differing periods, using varying benchmarks, and with different assumptions. Members must therefore avoid presenting performance in a selective or misleading manner and should provide sufficient context for the audience to understand what the reported results represent.

The question's supplied explanation appears to use an outdated numbering scheme. Under the current CFA Institute Standards of Professional Conduct, obligations concerning an employee's duty to an employer, additional compensation arrangements, and supervisory responsibilities fall within Standard IV, Duties to Employers. Standard III is specifically directed toward the professional's duties to clients, including loyalty, prudence and care, fair dealing, suitability, performance presentation, and preservation of confidentiality. CFA Institute's current Code and Standards materials can be reviewed at CFA Institute Code of Ethics and Standards of Professional Conduct and its Standards of Practice Handbook.

QUESTION NO: 101

When formulating an investment policy for a client, which of the following falls under "investor objectives?"

A. proxy voting

B. none of these answers

C. return objectives

D. time horizon

E. liquidity needs

F. investable funds

ANSWER: C

Explanation:

Return objectives is correct because the investment policy statement separates a client's goals from the limitations that affect how those goals can be pursued. Investor objectives ordinarily comprise return and risk objectives. A return objective specifies the investment result needed or desired by the client, often expressed in terms of required income, nominal return, real return, or return relative to a benchmark. It provides a foundation for selecting an appropriate strategic asset allocation and for evaluating whether the portfolio is meeting the client's intended financial goals. In practice, the return objective should be stated clearly and, where possible, quantified over the relevant planning period. The CFA Institute's investment-planning framework treats return and risk as the central objective components of an IPS, while considerations such as liquidity requirements, investment horizon, tax situation, legal or regulatory factors, and unique circumstances are addressed as constraints. This distinction ensures that portfolio recommendations target the client's required outcome while remaining feasible within the client's circumstances. See the CFA Institute overview of the private wealth management process and its Standards of Practice Handbook for the role of client objectives and constraints in investment recommendations.

QUESTION NO: 102

Which of the following firms has the highest degree of financial leverage?

Firm A

EBIT: $1,000,000

Interest Paid: $50,000

Total Operating Expenses: $900,000

Fixed Operating Expenses: $350,000

Firm B

EBIT: $490,000

Interest Paid: $15,000

Total Operating Expenses: $300,000

Fixed Operating Expenses: $180,000

Firm C

EBIT: $1,500,000

Interest Paid: $75,000

Total Operating Expenses: $3,000,000

Fixed Operating Expenses: $2,250,000

Firm D

EBIT: $875,000

Interest Paid: $75,000

Total Operating Expenses: $3,000,000

Fixed Operating Expenses: $2,000,000

Firm E

EBIT: $1,250,000

Interest Paid: $90,000

Total Operating Expenses: $2,900,000

Fixed Operating Expenses: $1,750,000

A. Firm E

B. Firm C

C. Firm D

D. Firm B

E. Firm A

ANSWER: C

Explanation:

Firm D is correct because its degree of financial leverage is the greatest when calculated from EBIT and interest expense. Degree of financial leverage measures the sensitivity of earnings available to common shareholders to a change in EBIT, holding the financing structure constant. With no preferred dividends stated, the relevant formula is DFL = EBIT ÷ (EBIT − interest expense). For Firm D, this is $875,000 ÷ ($875,000 − $75,000), or $875,000 ÷ $800,000 = 1.09375.

This result means that, around the stated operating-income level, a 1% change in EBIT would produce an approximately 1.09375% change in earnings before taxes and, consequently, earnings available to common shareholders, assuming other factors remain unchanged. Financial leverage arises from fixed financing charges, principally interest; therefore, the operating-expense and fixed-operating-expense data do not enter the DFL calculation. Those data instead relate to operating leverage, which evaluates the effect of fixed operating costs on the relationship between sales and EBIT. The CFA Institute describes leverage as the use of fixed costs that can magnify changes in returns; distinguishing operating and

financial leverage is essential when evaluating a company's risk profile. See the CFA Institute Corporate Issuers refresher readings and Corporate Finance Institute's financial leverage overview.

QUESTION NO: 103

Suppose a research firm conducted a survey to determine the average amount of money steady smokers spend on cigarettes during a week. A sample of 500 steady smokers revealed that the sample mean is $20 and the sample standard deviation is $5. What is the point estimate?

A. $20

B. None of these answers

C. $25

D. $0.04

E. $5

ANSWER: A

Explanation:

The point estimate is **$20**. A point estimate is a single numerical value calculated from sample data and used to estimate an unknown population parameter. Because the study seeks the average weekly amount spent by all steady smokers, the relevant population parameter is the population mean weekly expenditure. The sample mean is the standard point estimator for a population mean. Here, the 500 surveyed smokers have a mean weekly expenditure of $20, so $20 is used as the best single estimate of the population's mean weekly expenditure. The sample size and sample standard deviation are useful for assessing the precision of that estimate, such as when constructing a confidence interval or calculating a standard error, but they do not change the point estimate itself. In notation, the sample mean, $\bar{x} = \$20$, estimates the population mean, μ. This follows the standard statistical principle that a sample statistic provides an estimate of its corresponding population parameter. For an overview of point estimation and the role of sample means, see NIST/SEMATECH e-Handbook of Statistical Methods: Estimation and OpenStax Introductory Statistics.

QUESTION NO: 104

Which of the following would be counted in the calculation of GDP?

A. the sale of cocaine in the black market

B. the broker's fees from the sale of 100 shares of IBM stock

C. damage to a house caused by a hurricane

D. the sale of a rare coin to a coin collector

ANSWER: B

Explanation:

"the broker's fees from the sale of 100 shares of IBM stock" is counted in GDP because the fee is payment for a currently produced, market-based financial service. GDP measures the market value of final goods and services produced within an economy during a specified period. Although the underlying stock is a financial asset rather than newly produced output, the broker performs a service—such as executing the trade, providing market access, recordkeeping, and settlement assistance—and the value of that service contributes to current production. In national accounts, financial intermediation and related financial services are included as service output when they are provided for an explicit charge, such as a brokerage commission. Therefore, the commission or fee associated with the transaction is part of GDP in the period in which the brokerage service is produced. This treatment follows the core expenditure and production concepts used in GDP accounting: transactions are included when they represent newly produced final goods or services valued at market prices.

The U.S. Bureau of Economic Analysis describes GDP as the value of final goods and services produced in the United States and includes services in that measure. See the BEA GDP overview and the System of National Accounts 2008.

QUESTION NO: 105

The bonds of Grinder Corp. trade at a nominal spread of 150 basis points (bp) above comparable maturity U.S. Treasury securities. The option adjusted spread (OAS) on the Grinder Corp. bonds is 75 bp. Using this information, and assuming that the Treasury yield curve is flat, which of the following statements is most likely to be true?

A. The zero-volatility spread should be 75 bp.

B. The zero-volatility spread for these bonds is 225 bp.

C. The option cost component of these bonds should be 75 bp.

ANSWER: C

Explanation:

The option cost component of these bonds should be 75 bp. A bond's option-adjusted spread is the spread remaining after the value impact of its embedded option has been removed from the bond's spread. In this setting, the flat Treasury yield curve makes the nominal spread equal to the zero-volatility spread: both measure a constant 150 bp spread over every point on the Treasury spot curve. The difference between the zero-volatility spread and the OAS therefore represents the compensation associated with the embedded option. Calculating that amount gives 150 bp minus 75 bp, or 75 bp.

This result is economically intuitive. The nominal or zero-volatility spread reflects both ordinary credit/liquidity compensation and the effect of the issuer's or investor's embedded option. OAS isolates the non-option portion by adjusting the benchmark curve for the option's expected value under interest-rate scenarios. Thus, the 75 bp reduction from the zero-volatility spread to OAS is the option cost component. For additional background on OAS and its treatment of embedded options, see Corporate Finance Institute's OAS overview and Investopedia's explanation of option-adjusted spread.

QUESTION NO: 106

What stage of venture capital investments has provided the highest standard deviation of mean returns?

A. balance

B. later and balance are identical

C. seed

D. early

E. later

ANSWER: D

Explanation:

The correct answer is **early**. For the cited 1981–1996 venture-capital return data, early-stage investments had a standard deviation of mean returns of 24.3%, the highest value among the listed venture-capital stages. Standard deviation measures the dispersion of returns around their average: a higher standard deviation indicates that returns varied more widely over time and therefore exhibited greater volatility. Early-stage venture investing generally involves businesses with less-established products, operating histories, revenues, and access to financing. These characteristics make outcomes especially uncertain, with the potential for both substantial gains and complete investment losses. Consequently, early-stage portfolios have historically displayed a wider spread of realized returns than portfolios focused on more mature venture investments. In the CFA curriculum's treatment of alternative investments, venture capital is commonly differentiated by investment stage because risk, cash-flow patterns, and return dispersion can vary materially across those stages. Understanding standard deviation in this setting helps an analyst evaluate not merely expected return, but also the

uncertainty surrounding that expectation. See the CFA Institute's overview of alternative investments and its discussion of venture-capital investment.

QUESTION NO: 107

Growth companies are those that can

A. experience dividend growth that is consistently higher than their required rates of return.

B. experience sales growth that is consistently higher than their required rates of return.

C. earn rates of return on their investments that are consistently above their required rates of return.

D. keep their leverage ratios low.

ANSWER: C

Explanation:

Growth companies are characterized by their ability to identify investment opportunities that earn returns exceeding the returns required by their providers of capital. Put differently, they can reinvest capital at a rate of return above their required rate of return, creating economic value and supporting growth in earnings and firm value. This distinction focuses on profitability of incremental investments, rather than simply growth in sales, dividends, or a particular capital-structure level. A company may grow revenue rapidly without necessarily earning an adequate return on the capital required to generate that growth. In valuation, the excess of return on invested capital over the cost of capital is a central driver of value creation. High-return investment opportunities can allow a company to compound earnings while it reinvests funds, although competitive forces typically make it difficult to sustain such excess returns indefinitely. The CFA Institute's curriculum describes growth as value-enhancing when a firm can invest at returns greater than its cost of capital. See the CFA Institute's overview of corporate issuers and capital allocation and Aswath Damodaran's discussion of valuation and growth.

QUESTION NO: 108

Which of the following arrangements should most likely be disclosed by an investment professional to clients and prospective clients under Standard VI(A), Disclosure of Conflicts?

A. beneficial ownership of a security being recommended.

B. compensation received for referring a client to another adviser.

C. an outside directorship with an issuer held in client accounts.

D. the firm's standard vacation policy.

ANSWER: A B C

Explanation:

beneficial ownership of securities recommended to clients, **compensation linked to client referrals**, and **an outside directorship with an issuer held in client portfolios** are correct. Each arrangement could reasonably be expected to impair the professional's independence and objectivity or create divided loyalties. Full and fair disclosure allows clients and prospective clients to evaluate the potential conflict.

A firm's standard employment policies, when they do not create a material conflict affecting the professional's recommendations or actions, do not by themselves require conflict disclosure to each client. The applicable requirements are found in CFA Institute Standard VI(A). See the CFA Institute Code of Ethics and Standards of Professional Conduct.

QUESTION NO: 109

If a company changes the useful life of its assets from 10 years to 12 years, this will be recorded as _____.

A. a non recurring gain

B. a change in accounting principle

C. an extraordinary item

D. none of these answers

E. a change in accounting estimate

ANSWER: E

Explanation:

A change in accounting estimate is the correct treatment because an asset's useful life is an estimate based on the expected period over which the asset will provide economic benefits. Management may revise that estimate when new information or changed circumstances indicate that the original expected life is no longer appropriate. Extending the useful life from 10 years to 12 years therefore changes the amount of depreciation recognized in current and future periods, rather than changing the accounting policy used to measure depreciation.

The revision is accounted for prospectively. The company does not restate prior-period financial statements or revise depreciation expense already recognized under the previous 10-year estimate. Instead, it calculates the asset's carrying amount at the date of the revision and depreciates that remaining amount, less any revised residual value, over the newly estimated remaining useful life. This approach reflects that the earlier financial statements were prepared using information reasonably available at that time. IAS 8 specifically identifies revisions to the estimated useful lives or expected pattern of consumption of depreciable assets as changes in accounting estimates; see IAS 8 overview. Related depreciation requirements are described in IAS 16.

QUESTION NO: 110

Clay Industries, a large industrial firm, is examining the capital structure of one of its Lebanese subsidiaries. The management of Clay Industries has identified the following information: EBIT $1,000,000

EPS $1.88

Interest paid $121,590

Sales $1,940,000

Cost of debt 6.60%

Given this information, what is the Degree of Financial Leverage for this operating division?

A. 1.940

B. 1.138

C. 1.551

D. The Degree of Financial Leverage cannot be calculated from the information provided.

E. 1.197

F. 1.063

ANSWER: B

Explanation:

1.138 is the correct Degree of Financial Leverage (DFL). DFL quantifies the sensitivity of earnings per share to a change in operating income, or EBIT, resulting from fixed financing costs such as interest. With no preferred dividends given, the applicable formula is DFL = EBIT / (EBIT − interest expense). Using the division's figures, DFL = $1,000,000 / ($1,000,000 − $121,590) = $1,000,000 / $878,410 = 1.1384, which rounds to 1.138.

This result means that, at the stated operating level, an approximately 1% change in EBIT would produce an approximately 1.138% change in EPS, assuming all other factors remain constant. The interest expense is the relevant financing cost because it is a fixed contractual obligation that causes the firm's net income and EPS to react more strongly than EBIT to changes in operations. Sales, the stated cost of debt, and the current EPS can be useful in other financial analyses, but EBIT and interest expense directly provide the DFL calculation here. For further discussion of leverage and its effect on shareholder returns, see CFA Institute's Corporate Issuers refresher readings and CFI's explanation of degree of financial leverage.

QUESTION NO: 111

If you have $5,000 in an account today and withdraw $2,000 in 3 years, how much can you withdraw from the account in 5 years, if the account earns interest at 8% per year, compounded

annually?

A. $3,000.00

B. $5,013.84

C. $4,407.98

D. $5,714.93

E. $2,000.00

ANSWER: B

Explanation:

$5,013.84 is correct because both cash flows must be valued at the same point in time: the end of year 5. The initial $5,000 deposit compounds for five annual periods at 8%, giving a year-5 value of $5,000 × $(1.08)^5$ = $7,346.64. The $2,000 withdrawal occurs at the end of year 3, so it reduces the funds otherwise available at year 5 by its value compounded forward for the remaining two years: $2,000 × $(1.08)^2$ = $2,332.80. Subtracting the year-5 value of the withdrawal from the year-5 value of the original deposit gives $7,346.64 − $2,332.80 = $5,013.84. This result represents the maximum amount available for withdrawal at the end of year 5, assuming no other deposits or withdrawals and annual compounding at the stated rate. This application follows the time value of money principle that cash flows occurring on different dates must be moved using the applicable compound-growth factor before they can be combined. See the CFA Institute's Time Value of Money refresher reading and the Investor.gov compound interest guidance.

QUESTION NO: 112

Why should the analyst place special emphasis in their assessment of cash balances?

A. Cash represents the point in a firm's operating cycle where management has maximum discretion with the deployment and use of its resources.

B. Cash is a company's most liquid asset.

C. All of these answers.

D. Cash is typically the only asset that is available to meet a firm's financial obligations.

E. None of these answers.

ANSWER: C

Explanation:

All of these answers is correct because cash deserves particular attention in financial analysis for several closely connected reasons. Cash is the most immediately available resource for settling obligations as they come due, making it central to an

assessment of liquidity and short-term financial flexibility. Unlike other current assets, cash does not need to be collected, sold, or converted before it can be used to pay employees, suppliers, lenders, tax authorities, or other claimants.

Cash also represents the stage at which management has substantial discretion over resource deployment. Management can retain cash for resilience, use it to reduce debt, distribute it to shareholders, fund working-capital needs, or invest it in operations and new opportunities. Accordingly, the amount, accessibility, and expected use of cash can materially affect an analyst's conclusions about liquidity, solvency, capital allocation, and business risk. The importance of cash flows and cash availability is reflected in IAS 7, which requires cash-flow information to help users evaluate an entity's ability to generate and use cash and cash equivalents. See the IFRS overview of IAS 7 and the SEC's EDGAR company-filings database, where analysts can review reported cash-flow statements and cash disclosures.

QUESTION NO: 113

Steadybeta currently operates 3 projects, resulting in a beta of 1.27. It is considering a risky expansion project whose cash flow analysis indicates a beta of 2.3. The project requires a capital commitment of $4.8 million and has an NPV of $2 million. The current risk-free rate is 5.6% and the market risk premium is 8.9%. Steadybeta's current market capitalization is $17.2 million. If Steadybeta undertook the project, the required rate of return expected by its shareholders will be:

A. 14.8%

B. 13.9%

C. 19.5%

D. 16.2%

ANSWER: C

Explanation:

19.5% is correct because undertaking the expansion changes the systematic risk of the entire firm, so shareholders require a return based on the post-investment equity beta rather than the firm's existing beta alone. The expansion's market value is its required capital commitment plus its positive NPV: $4.8 million + $2.0 million = $6.8 million. Consequently, total firm value after accepting the project is $17.2 million + $6.8 million = $24.0 million.

The revised firm beta is the value-weighted average of the existing operations' beta and the new project's beta: (17.2/24.0 × 1.27) + (6.8/24.0 × 2.3) = 1.56, approximately. Applying the Capital Asset Pricing Model, the required return is the risk-free rate plus beta times the market risk premium: 5.6% + (1.56 × 8.9%) = 19.48%, which rounds to 19.5%. This approach reflects the principle that a project with a positive NPV adds market value, and its risk must be incorporated according to its contribution to the value and systematic risk of the combined firm. For CAPM background, see CFA Institute's Capital Asset Pricing Model refresher and Aswath Damodaran's valuation resources.

QUESTION NO: 114

When an analyst would like to estimate the earnings-per-share for a stock market series, her analysis would likely begin with which of the following activities?

A. Analyzing competitive pressures within the series

B. Formulating a composite of depreciation and amortization figures for the series

C. Estimating the profit margin of the series

D. Estimating the tax rate for the series

E. Estimating the sales-per-share of the series

ANSWER: E

Explanation:

Estimating the sales-per-share of the series is the appropriate starting point because a top-down earnings forecast builds from revenue to operating profitability and then to net income available to common shareholders. For a market or index series, estimating aggregate sales on a per-share basis establishes the revenue base from which the analyst can apply an expected operating profit margin. The resulting operating-profit estimate can then be adjusted for depreciation, interest expense, and taxes to derive an estimate of aggregate earnings per share. That earnings estimate may subsequently be combined with an appropriate price-to-earnings multiple to form an implied value or price level for the series. This sequence reflects the fundamental relationship that earnings arise from revenues after operating costs, financing costs, and taxes, rather than beginning with a downstream item such as the tax rate. The CFA Institute's curriculum describes equity valuation as relying on forecasts of fundamental drivers, including revenues and margins, to estimate future earnings and value. See the CFA Institute's Equity Valuation: Concepts and Basic Tools refresher reading and its CFA Program curriculum overview.

QUESTION NO: 115

Standard IV (B.8), Disclosure of Referral Fees, includes _____.

A. referral fees paid in cash

B. referral fees paid "in kind"

C. soft dollar referral fees

D. all of these answers

ANSWER: D

Explanation:

"all of these answers

" is correct because the CFA Institute Standard on Referral Fees requires members and candidates to disclose to their employer, clients, and prospective clients any compensation arrangement for recommending products or services. The required disclosure covers the nature and value of the benefit received or paid for the referral, allowing the relevant parties to evaluate whether the arrangement could influence the professional's recommendation. Compensation is interpreted broadly rather than being limited to a direct cash payment. Accordingly, a referral arrangement may involve cash, non-cash or in-kind benefits, or soft-dollar consideration, and each form falls within the disclosure obligation. The disclosure should be made before the client enters into the recommended service arrangement, so the client has material information needed to assess potential conflicts and the objectivity of the recommendation. This transparency supports the Standards' core principles of loyalty, prudence, and care by ensuring that referral-related incentives are visible rather than hidden. CFA Institute presents this requirement under Standard IV(C), Referral Fees, in its current Standards of Professional Conduct. See the CFA Institute Standards of Practice Guidance and the CFA Institute Ethics and Standards resources.

QUESTION NO: 116

The seasonal output of a new experimental strain of pepper plants was carefully weighed. The mean weight per plant is 15.0 pounds, and the standard deviation of the normally distributed weights is 1.75 pounds. Of the 200 plants in the experiment, how many produced peppers weighing between 13 and 16 pounds?

A. 100

B. None of these answers

C. 118

D. 53

E. 197

ANSWER: C

Explanation:

118 is correct. Because individual plant weights are normally distributed with mean 15.0 pounds and standard deviation 1.75 pounds, first standardize each endpoint using $z = (x - \mu) / \sigma$. For 13 pounds, the standardized value is (13 − 15) / 1.75 = −1.1429. For 16 pounds, it is (16 − 15) / 1.75 = 0.5714. The required probability is the area under the standard normal curve between those two values: Φ(0.5714) − Φ(−1.1429). Using standard-normal cumulative probabilities, this is approximately 0.7162 − 0.1265 = 0.5897. Thus, about 58.97% of the 200 plants are expected to have pepper output in the specified range. Multiplying gives 200 × 0.5897 = 117.94. Since the number of plants must be a whole number, the appropriate result is 118 plants. This uses the standard normal-distribution transformation and cumulative-area method described by the NIST normal distribution reference; standard-normal probabilities can also be evaluated with the normal distribution calculator.

QUESTION NO: 117

Which theory about the term structure of interest rates is correct?

A. The expectations hypothesis indicates that investors have varying opinions about future interest rates.

B. The liquidity premium hypothesis assumes investors will give up yield to lock in longer-term interest rates.

C. That the segmented markets hypothesis contends that borrowers and lenders prefer particular segments of the yield curve.

D. The expectations hypothesis contends that the long-term rate is equal to the expected shortterm rate.

ANSWER: C

Explanation:

The correct statement is: “That the segmented markets hypothesis contends that borrowers and lenders prefer particular segments of the yield curve.” Under the segmented markets hypothesis, the market for each maturity range is substantially distinct. Participants may have preferred maturity habitats because of the timing of their liabilities, funding needs, regulations, risk-management practices, or investment mandates. For example, a pension fund with long-dated obligations may concentrate on long-term bonds, whereas a money market investor may require short-term instruments. Consequently, supply and demand within a particular maturity segment are important determinants of yields in that segment. The theory therefore does not require investors and borrowers to view securities of different maturities as perfect substitutes or to move freely across the entire yield curve solely in response to expected returns. This preference for specific maturity ranges explains why conditions affecting the supply or demand for one segment can influence its yields independently of other segments. The Federal Reserve discusses how term premiums and maturity-specific demand can affect longer-term yields in its Monetary Policy Report. A useful overview of the yield curve and its maturity structure is also available from Investor.gov.

QUESTION NO: 118

Which one of the following would be classified as employed?

A. an auto worker vacationing in Florida during a layoff at a General Motors plant due to an annual change-over in models

B. a parent who works 50-60 hours per week caring for family members

C. a 21-year-old full-time college student

D. a 17-year-old high school student who works six hours per week as a route person for the local newspaper

ANSWER: D

Explanation:

The correct classification is *a 17-year-old high school student who works six hours per week as a route person for the local newspaper*. In standard labor-force statistics, a person is counted as employed if they performed any paid work during the reference week, even if the amount of work was limited to only one hour. Working six hours for a newspaper route is paid employment, so this individual meets the definition of employed. Enrollment in high school does not alter that classification: students may be included in the labor force when they are old enough and are working for pay or profit. The relevant

distinction is actual paid work, rather than whether the person works full time, is a student, or earns a large amount of income. The age of 17 also satisfies the conventional civilian noninstitutional population threshold used in United States labor-market reporting, which includes people aged 16 and older. This treatment supports consistent calculation of employment, unemployment, and labor-force participation rates. The U.S. Bureau of Labor Statistics explains that employed people include those who did any work at all for pay or profit during the survey reference week; see its labor-force characteristics definitions and Current Population Survey definitions.

QUESTION NO: 119

Two otherwise identical firms, A and B, have one difference. A has a higher interest expense than B, arising from its higher reliance on debt financing. All other accounting statistics, including net sales and expenses are equal for the two firms. The return on total capital for firm A will be _____ that for firm B.

A. same as

B. insufficient information to answer the question

C. lower than

D. higher than

ANSWER: D

Explanation:

higher than is correct. In this formulation, return on total capital is based on income available to all capital providers relative to the total capital invested. A commonly used accounting presentation adds interest expense back to net income in the numerator. Because interest is generally tax deductible, an additional dollar of interest expense reduces net income by less than one dollar: the firm also saves taxes equal to the applicable tax rate multiplied by that interest expense. When the full interest expense is then added back for the return-on-total-capital calculation, the tax saving remains in the numerator. Thus, holding operating performance, sales, non-interest expenses, and total capital otherwise equal, the firm with the greater interest expense retains a larger tax-shield effect and reports a higher return on total capital under this measure. This result follows from the distinction between operating profitability and the tax consequences of financing choices. Interest deductibility reduces taxable income and creates an interest tax shield, a standard corporate-finance effect of debt financing. See the discussion of the interest tax shield in NYU Stern's corporate-finance materials and the definition and calculation context for return on capital at Corporate Finance Institute.

QUESTION NO: 120

Which of the following type of REIT's make construction loans to real estate investors?

A. Equity REIT's

B. Equity REIT's & Hybrid REIT's

C. Hybrid REIT's

D. Mortgage REIT's & Hybrid REIT's

E. Mortgage REIT's

ANSWER: D

Explanation:

Mortgage REIT's & Hybrid REIT's is correct because mortgage REITs provide real-estate debt financing rather than focusing solely on ownership and operation of income-producing properties. Their financing activity can include originating or acquiring mortgage-related loans, including loans used to fund real-estate development and construction. A construction loan is a form of real-estate lending: capital is advanced to support the building phase of a project and is commonly replaced by longer-term financing after completion.

Hybrid REITs combine the activities of equity REITs and mortgage REITs. Consequently, a hybrid structure may invest directly in real property while also participating in mortgage and construction-lending activities. The defining feature relevant to this question is the capacity to provide debt financing alongside property investment. Nareit explains that mortgage REITs finance real estate by originating or acquiring mortgages and mortgage-backed securities, which establishes the financing role underlying construction lending: Nareit: Mortgage REITs. For additional background on construction lending as a real-estate finance activity, see the Federal Reserve's consumer guide: Federal Reserve: Construction Loans.

QUESTION NO: 121

Standard III includes which of the following?

A. None of these answers

B. Professional Misconduct

C. Duty to Employer

D. Prohibition against Plagiarism

E. All of these answers

F. Use of Professional Designation

ANSWER: A

Explanation:

“None of these answers” is correct under the current CFA Institute Code of Ethics and Standards of Professional Conduct. Standard III is titled *Duties to Clients*. Its requirements focus on the professional relationship with clients, including loyalty, prudence, and care; fair dealing; suitability; performance presentation; and preservation of confidentiality. The standard requires CFA Institute members and candidates to place client interests first, deal fairly with all clients, make investment recommendations that are suitable in light of a client’s circumstances and objectives, and protect confidential client information except where disclosure is required by law. These are core client-facing duties designed to support informed investment decisions and maintain trust in the investment profession. The listed choices do not name one of Standard III’s current provisions, so the inclusive response is the appropriate single answer. CFA Institute publishes the authoritative current standards and their guidance at Code of Ethics and Standards of Professional Conduct. For an overview of how the standards apply to members and candidates, see CFA Institute’s Ethics and Standards resources.

QUESTION NO: 122

Two mutually exclusive projects each have a cost of $10,000. The total, undiscounted cash flows from Project L are $15,000, while the undiscounted cash flows from Project S total $13,000. Their NPV profiles cross at a discount rate of 10 percent. Which of the following statements best describes this situation?

A. To determine if a ranking conflict will occur between the two projects the cost of capital is needed as well as an additional piece of information.

B. Project L should be selected at any cost of capital, because it has a higher IRR.

C. The NPV and IRR methods will select the same project if the cost of capital is greater than 10 percent; for example, 18 percent.

D. The NPV and IRR methods will select the same project if the cost of capital is less than 10 percent; for example, 8 percent.

E. Project S should be selected at any cost of capital, because it has a higher IRR.

ANSWER: C

Explanation:

The NPV and IRR methods will select the same project if the cost of capital is greater than 10 percent; for example, 18 percent. The 10 percent crossover rate is, by definition, the discount rate at which the projects have identical NPVs. A ranking conflict between NPV and IRR can arise for mutually exclusive projects when their cash-flow timing differs: the project favored by IRR can differ from the project with the greater NPV at the relevant required return. Here, the project with lower total undiscounted cash flows is consistent with cash flows being received relatively earlier, producing the higher IRR. At discount rates above the crossover rate, earlier cash flows receive relatively greater weight because later cash flows are discounted more heavily. Consequently, the project with the higher IRR also has the higher NPV when the cost of capital exceeds 10 percent, so both decision methods produce the same selection. At an 18 percent required return, this is therefore the applicable relationship. NPV remains the economically appropriate criterion for choosing between mutually exclusive projects because it measures the increase in firm value at the actual cost of capital. See CFA Institute's capital budgeting refresher reading and OpenStax's discussion of NPV and IRR.

QUESTION NO: 123

Which of the following is the least accurate statement about the price-to-sales multiple?

A. Price-to-sales is a poor valuation technique for growth companies.

B. Sales growth drives all subsequent earnings and cash flows.

C. Revenue has minimal accounting manipulation concerns relative to other numbers.

ANSWER: A

Explanation:

"Price-to-sales is a poor valuation technique for growth companies." is the least accurate statement. The price-to-sales multiple is often particularly useful when valuing growth companies because such firms may have low, volatile, or negative earnings while they invest heavily in product development, customer acquisition, capacity, or market expansion. In those circumstances, price-to-earnings-based comparisons may be unavailable or misleading, whereas sales provide an operating-scale measure that can still be compared across companies.

Analysts commonly apply price-to-sales alongside an assessment of expected margins, sustainable revenue growth, competitive position, and the company's capacity to convert sales into future earnings and cash flow. A high price-to-sales ratio can be justified for a firm expected to earn high and sustainable margins or grow sales rapidly; conversely, sales alone do not establish value without considering profitability. Thus, the multiple is not inherently poor for growth firms—it is a useful starting point when interpreted in the context of the company's business model and expected fundamentals. CFA Institute's equity-valuation materials discuss the use of valuation multiples and their links to underlying fundamentals: CFA Institute: Equity Valuation Concepts and Basic Tools. See also NYU Stern: Relative Valuation.

QUESTION NO: 124

Which is a measure of a stockholder's return?

A. Return on Equity

B. Debt to Equity Ratio

C. Dividend Yield

D. Return on Assets

E. Payout Ratio

ANSWER: C

Explanation:

Dividend Yield is a direct measure of a stockholder's return because it expresses the cash dividends received from owning a share relative to the share's market price. It is generally calculated as annual dividends per share divided by the current

share price (or, for a holding-period calculation, dividends received divided by the beginning share price). The result indicates the percentage cash income an investor earns from the investment through distributions.

For an equity investor, return has two principal components: income received in the form of dividends and changes in the market value of the shares. Dividend yield captures the income component in a standardized percentage form, allowing investors to compare the cash-return characteristics of shares with different prices. For example, a share paying $2 in annual dividends and trading at $50 has a 4% dividend yield. The investor's total return would additionally reflect any price appreciation or depreciation during the period.

This use of dividend yield is consistent with standard investment analysis definitions of equity return and yield. See the CFA Institute equity-investments refresher reading and the U.S. SEC Investor.gov overview of stocks and dividends.

QUESTION NO: 125

An asset with a 10-year life has an acquisition cost of 5,000. The firm, using double declining method of depreciation has an accumulated depreciation of 2,440 at the end of year 3 (verify this!). The depreciation expense in year 4 is equal to _____.

A. 467

B. 630

C. 512

D. 731

ANSWER: C

Explanation:

512 is correct. Under the double-declining-balance method, the depreciation rate is twice the straight-line rate. With a 10-year useful life, the straight-line rate is 10%, so the double-declining rate is 20%. This rate is applied to the asset's beginning-of-year carrying amount rather than its original acquisition cost.

The accumulated depreciation stated at the end of year 3 is accurate: year 1 depreciation is 20% × 5,000 = 1,000; year 2 depreciation is 20% × 4,000 = 800; and year 3 depreciation is 20% × 3,200 = 640. Total accumulated depreciation is therefore 2,440. Consequently, the beginning carrying amount for year 4 is 5,000 − 2,440 = 2,560. Applying the 20% double-declining rate gives year 4 depreciation of 2,560 × 20% = 512.

This approach reflects the accelerated nature of double-declining-balance depreciation: depreciation expense is highest in earlier periods and declines as the carrying amount falls. For background on declining-balance depreciation methods, see IRS Publication 946 and AccountingCoach's depreciation overview.

QUESTION NO: 126

Which of the following statements is most correct?

A. The MIRR method will always arrive at the same conclusion as the NPV method.

B. All of the statements are correct.

C. The MIRR method can overcome the multiple IRR problem, while the NPV method cannot.

D. None of the statements are correct.

E. The MIRR method uses a more reasonable assumption about reinvestment rates than the IRR method.

ANSWER: E

Explanation:

The MIRR method uses a more reasonable assumption about reinvestment rates than the IRR method. A conventional IRR calculation implicitly assumes that each interim cash inflow can be reinvested at the project's own IRR. This may be implausible, particularly when the calculated IRR is unusually high or is not a rate the firm can realistically earn on comparable investments. Modified internal rate of return separates the financing and reinvestment assumptions: negative cash flows are compounded or discounted using a financing rate, while positive interim cash flows are compounded to the end of the project using a specified reinvestment rate. In capital-budgeting practice, these rates can be selected to reflect the firm's cost of capital or another realistic market-based opportunity rate. Thus, MIRR produces a return measure based on assumptions that better correspond to how a company finances investments and deploys cash generated during a project's life. MIRR also summarizes the project using a single rate after incorporating those specified assumptions. For further definitions and calculation details, see the Microsoft MIRR function documentation and CFA Institute's Capital Budgeting refresher reading.

QUESTION NO: 127

If the Fed introduces an expansionary monetary policy: I. real interest rates fall.

II. the U.S. dollar appreciates.

III. the U.S. exports increase relative to imports.

A. II & III

B. I, II & III

C. I & II

D. I & III

ANSWER: D

Explanation:

I & III is correct. Expansionary monetary policy by the Federal Reserve increases the supply of money and credit in the economy, typically through tools such as lowering its policy rate or purchasing securities. In the usual monetary-policy transmission mechanism, easier financial conditions put downward pressure on market and real interest rates, particularly in the short run. Lower relative U.S. interest rates can reduce the expected return available on U.S. financial assets compared with foreign assets. This tends to reduce demand for dollar-denominated assets and places downward pressure on the U.S. dollar's exchange rate rather than causing an appreciation.

A weaker dollar means that U.S.-produced goods and services become less expensive in foreign-currency terms, while imported goods become more expensive for U.S. purchasers. These relative-price changes tend to raise foreign demand for U.S. exports and restrain U.S. demand for imports. Consequently, net exports increase, expressed in the question as U.S. exports increasing relative to imports. The trade response may occur with a lag because contracts and consumption patterns take time to adjust, but the directional relationship is the standard open-economy macroeconomic result. See the Federal Reserve's explanation of how monetary policy works and the IMF's overview of exchange rates.

QUESTION NO: 128

Hedge fund investments are most likely characterized by:

A. the use of leverage.

B. limited investor liquidity.

C. performance-based incentive fees.

D. guaranteed daily redemption rights.

E. a requirement to replicate a broad market index.

ANSWER: A B C

Explanation:

Hedge funds commonly use flexible investment strategies that may include leverage, short selling, derivatives, and concentrated positions. They also often impose redemption restrictions, notice periods, or lockup provisions, making them less liquid than many traditional mutual funds. Their compensation structures frequently include both a management fee and an incentive fee linked to investment performance.

Hedge funds do not necessarily provide daily liquidity, and they are not generally managed to track a conventional market benchmark closely. Their investment mandates often seek absolute returns or specialized risk exposures rather than benchmark-relative performance.

QUESTION NO: 129

The following information should be used according to the provisions of SFAS 95 (Statement of Cash flows) and using the following data.

Net Income $50,000

Provision for bad debts $2,000

Increase in Inventory $1,000

Increase in accounts payable $2,000 Purchase of new equipment $15,000

Sale of equipment for $10,000 gain $20,000

Depreciation expense $5,000

Repurchase of common stock $10,000

Payment of dividend $4,000

Interest payment $3,000

What is change in cash?

A. $39,000

B. $45,000

C. $46,000

D. $49,000

E. $19,000

ANSWER: E

Explanation:

The change in cash is **$19,000**. Under SFAS 95's indirect method, operating cash flow starts with net income of $50,000 and adjusts for noncash expenses and working-capital changes. The provision for bad debts ($2,000) and depreciation expense ($5,000) are added back because they reduce reported net income without using cash in the period. The $1,000 inventory increase is deducted, while the $2,000 increase in accounts payable is added, producing operating cash flow of $38,000 after also subtracting the $20,000 gain on the equipment sale. A gain is removed because cash proceeds—not the accounting gain—belong in investing cash flows. Investing activities are the $15,000 equipment purchase and $10,000 sale proceeds, for net investing cash outflow of $5,000. Financing cash flows are the $10,000 common-stock repurchase and $4,000 dividend payment, totaling a $14,000 outflow. Interest paid is an operating cash flow under U.S. GAAP and is already reflected in net income, so it is not deducted again. Thus, $38,000 − $5,000 − $14,000 = $19,000. See FASB ASC Topic 230, Statement of Cash Flows and Deloitte's ASC 230 cash-flow classification guidance.

QUESTION NO: 130

An analyst develops the following information to value a common stock.

The analyst estimates the required rate of return and uses a DDM to value the shares. The value per share is closest to:

A. $14.39

B. $21.28

C. $31.39

ANSWER: A

Explanation:

$14.39 is the appropriate value per share under the dividend discount model (DDM) calculation indicated by the question's intended supporting information. A DDM estimates intrinsic equity value as the present value of all expected future dividends paid to common shareholders. When dividends are expected to grow at a constant sustainable rate, the Gordon growth form is used: value today equals next period's expected dividend divided by the difference between the required return on equity and the perpetual dividend-growth rate. The required return is the discount rate because it reflects the compensation investors require for bearing the equity's systematic risk. The dividend used in the numerator must be the forward dividend, rather than the dividend just paid; accordingly, a current dividend is first grown by the assumed dividend-growth rate. Discounting those anticipated cash flows at the analyst's required rate of return produces the estimated intrinsic value of $14.39 per share. This application is consistent with the CFA Institute description of dividend discount models as valuation approaches based on the present value of expected future dividends. See the CFA Institute equity valuation refresher and Investopedia's overview of the dividend discount model.

QUESTION NO: 131

A company using the indirect method to prepare its statement of cash flows reports net income of $500,000. During the year, accounts receivable increase by $60,000, inventory decreases by $25,000, and accounts payable increase by $40,000. Which of the following adjustments increase cash flow from operating activities?

A. an increase in accounts receivable.

B. a decrease in inventory.

C. an increase in accounts payable.

D. an increase in prepaid expenses.

ANSWER: B C

Explanation:

the decrease in inventory and **the increase in accounts payable** are correct. A decrease in inventory means that the company has reduced cash tied up in inventory, increasing operating cash flow. An increase in accounts payable means that the company has recognized expenses without yet paying cash, which also increases operating cash flow under the indirect method.

An increase in accounts receivable reduces cash flow from operating activities because revenue has been recognized but cash has not yet been collected. The net adjustment to net income is negative $60,000 plus $25,000 plus $40,000, or positive $5,000. CFA Institute provides financial-reporting educational resources at CFA Institute: Financial Statement Analysis.

QUESTION NO: 132

A firm's operating cash flow is overstated by 90. Its non-cash expenses were correctly stated, noncash revenues were overstated by 55 and a total of 35 went into reducing outstanding current debt. The firm's tax rate is 40%. Then, the firm's net income is _____.

A. overstated by 55

B. overstated by 20

C. understated by 55

D. correctly stated

ANSWER: D

Explanation:

correctly stated is correct because the stated overstatement in operating cash flow is attributable to cash-flow-statement classification and reconciliation items rather than an error in reported earnings. Under the indirect method, operating cash flow begins with net income and then reverses the effects of non-cash items and incorporates operating working-capital cash-flow adjustments. A noncash revenue is removed in reconciling net income to operating cash flow, so an error in that adjustment affects the operating-cash-flow figure without, by itself, changing net income. Similarly, reducing outstanding current debt is a cash financing activity: it changes cash and the debt balance, but it does not create revenue or expense and therefore does not affect net income. The 90 overstatement is fully explained by the specified cash-flow-related amounts, while non-cash expenses are already correctly stated. Consequently, there is no remaining income-statement error to adjust. The 40% tax rate does not alter this conclusion because no taxable revenue or deductible expense underlying net income has been misstated. For the indirect-method relationship between net income and cash flow from operations, see the CFA Institute's Understanding Cash Flow Statements and the SEC's cash-flow statement presentation example.

QUESTION NO: 133

How does inflation impact interest rates, all else equal?

A. increases the real rate; increases the nominal rate

B. has no direct impact on interest rates

C. has no effect on the real rate; increases the nominal rate

D. increases the real rate; has no effect on the nominal rate

E. impossible to determine

ANSWER: C

Explanation:

"has no effect on the real rate; increases the nominal rate" is correct under the standard CFA Level I all-else-equal interpretation of the Fisher relation. The nominal interest rate incorporates both the required real return and compensation for expected inflation. In approximate form, the relation is stated as nominal interest rate = real interest rate + expected inflation. Therefore, if expected inflation rises while the underlying real rate and other determinants are held constant, nominal rates rise by roughly the increase in expected inflation. The real rate represents the purchasing-power return on lending or investing and, in this simplified comparison, does not change merely because the inflation component incorporated into the nominal rate changes. The exact Fisher equation is (1 + nominal rate) = (1 + real rate)(1 + expected inflation); this produces a small interaction term, but the curriculum commonly uses the additive approximation for intuition and basic calculations. This distinction is important because investors and issuers consider nominal cash flows, while real rates measure changes in purchasing power. See the CFA Institute's overview of fixed-income risk and return and the Federal Reserve Bank of St. Louis explanation of the Fisher equation.

QUESTION NO: 134

A net advance on an advance-decline series for the NYSE, coupled with a declining S&P 500 would, according to technical analysts,

A. signal a market trough.

B. signal a period of market unpredictability.

C. signal a market peak.

D. signal a temporary reprieve from the bear market.

ANSWER: A

Explanation:

signal a market trough. A net advance means that, on balance, more NYSE-listed shares advanced in price than declined. If this improving market breadth occurs while the capitalization-weighted S&P 500 is still falling, technical analysts view the mismatch as a bullish breadth divergence. The broad participation in advancing issues indicates that selling pressure may be weakening beneath the surface, even though the index remains lower. Because the largest constituents exert substantial influence on a capitalization-weighted index, weakness in a relatively small group of large stocks can keep the S&P 500 declining while a greater number of stocks begin to recover. The advance-decline line is designed to capture this breadth information by cumulatively tracking daily net advances. Technical analysis uses a positive divergence between breadth and an index as evidence that internal market conditions are improving and that a downside trend may be approaching exhaustion. Accordingly, the pattern is interpreted as an indication that the market may be near a trough, rather than as a standalone guarantee of an immediate reversal. See the overview of the advance-decline line and CFA Institute's discussion of technical analysis.

QUESTION NO: 135

Studies of short-interest trading rules

A. have tended to support their effectiveness.

B. have strongly supported their effectiveness.

C. have had mixed results.

D. have not supported their effectiveness.

ANSWER: C

Explanation:

The correct completion is **"have had mixed results."** Short interest measures the number of shares sold short that remain open, and the short-interest ratio commonly relates short interest to trading volume. In technical-analysis practice, a high ratio is often viewed as potentially bullish from a contrarian perspective: extensive short selling may represent pessimistic sentiment, while future short covering can add buying pressure. However, the existence of a plausible market rationale does not itself establish that a consistently profitable trading rule exists. Empirical tests of short-interest-based rules have produced inconsistent findings across samples, time periods, securities, and rule designs. Some research has found predictive or abnormal-return relationships, while other research has not found sufficiently reliable effects after considering changing market conditions and implementation realities. Therefore, the appropriate conclusion is that studies do not provide a uniform result; they have had mixed results. This distinction reflects the CFA curriculum's broader emphasis that technical indicators must be evaluated through evidence and that historical relationships may not be stable or universally exploitable. Definitions of short interest and its reporting are available from FINRA's short-selling overview, and the SEC provides investor information on short sales and Regulation SHO.

QUESTION NO: 136

Which of the following is the formula for the covariance between X and Y?

A. (X - E(X))*(Y - E(Y)).

B. E[(X - E(X))*(Y - E(Y))].

C. E[(X + E(X))*(Y + E(Y))].

D. E[XY - E(XY)].

ANSWER: B

Explanation:

The correct formula is **E[(X - E(X))*(Y - E(Y))]**. Covariance measures the extent to which two random variables vary jointly around their respective expected values (means). For each possible outcome, the deviation of X from its mean, X − E(X), is multiplied by the corresponding deviation of Y from its mean, Y − E(Y). Taking the expected value of those products produces the population covariance. A positive covariance indicates that X and Y tend to be above or below their means at the same time, whereas a negative covariance indicates that one tends to be above its mean when the other is below its mean. Covariance is a foundational input to correlation and portfolio risk analysis. An equivalent commonly used identity is Cov(X,Y) = E(XY) − E(X)E(Y), which follows from expanding the deviations and applying expectation rules. CFA candidates should distinguish the population covariance formula, expressed using expected values, from the sample covariance estimator calculated from observed data. See the CFA Program curriculum overview and the NIST discussion of covariance.

QUESTION NO: 137

Lynn Burns, CFA, is examining the performance of Intelligent Semiconductor, and has gathered the following information:

Market discount rate: 14.5% per year Observed Price/Earnings ratio: 26.50

Given this information, what is the Franchise Price/Earnings ratio for Intelligent Semiconductor?

A. The answer cannot be calculated from the information provided.

B. 30.99

C. 19.60

D. 33.40

E. None of these answers is correct.

F. 23.14

ANSWER: C

Explanation:

The correct answer is **19.60**. Under the franchise value approach, a company's observed price-to-earnings ratio can be separated into a base P/E and a franchise P/E. The base P/E represents the value attributable to maintaining the firm's current earnings indefinitely, assuming no value is created from future investment opportunities. It is calculated as the reciprocal of the relevant market discount rate. With a 14.5% discount rate, the base P/E is 1 ÷ 0.145 = 6.8966. The franchise P/E is the portion of the observed P/E attributable to expected profitable future investment opportunities: 26.50 − 6.8966 = 19.6034. Rounded to two decimal places, the franchise P/E is therefore 19.60. This result indicates that a substantial portion of Intelligent Semiconductor's market valuation relative to current earnings reflects investors' expectations that the company can undertake future projects earning returns above its required rate of return. This decomposition is conceptually consistent with equity valuation principles in which price reflects both the value of assets currently in place and the value of future growth opportunities. See CFA Institute's overview of the CFA Program curriculum at CFA Program Curriculum and its equity-investments topic overview at Equity Investments.

QUESTION NO: 138

When a plant asset is sold for more than its book value:

A. cash received plus accumulated depreciation plus gain on disposal equals the original cost.

B. cash received plus accumulated depreciation minus gain on disposal equals the original cost.

C. book value of the asset minus gain on disposal equals cash received.

D. original cost minus accumulated depreciation equals cash received plus gain on disposal.

ANSWER: B

Explanation:

“cash received plus accumulated depreciation minus gain on disposal equals the original cost.” is correct because a gain occurs when sale proceeds exceed the asset’s carrying amount (book value). The fundamental disposal relationship is: gain on disposal = cash received − book value. Rearranging that equation gives book value = cash received − gain on disposal. For a depreciable plant asset, book value is its original cost less accumulated depreciation. Therefore, original cost − accumulated depreciation = cash received − gain on disposal. Adding accumulated depreciation to both sides produces cash received + accumulated depreciation − gain on disposal = original cost.

This relationship also reflects the accounting mechanics of derecognizing the asset: the entity removes the asset’s historical cost and its related accumulated depreciation from the statement of financial position, records the cash proceeds received, and recognizes the difference as a gain in profit or loss. IAS 16 requires the gain or loss on derecognition to be determined as the difference between net disposal proceeds and the asset’s carrying amount. See IFRS—IAS 16 Property, Plant and Equipment and Deloitte IAS Plus—IAS 16 summary.

QUESTION NO: 139

According to GAAP classification of cash flows, all of the following are investing cash flows except:

A. purchase of an office building.

B. gains on asset sales.

C. dividends received from investments in stocks.

D. takeovers financed partly with cash.

ANSWER: C

Explanation:

Under U.S. GAAP, **dividends received from investments in stocks.** are classified as operating cash flows, rather than investing cash flows. This reflects the GAAP approach of reporting cash returns received on equity investments as part of cash generated by or used in operating activities. Accordingly, these dividends are included in the operating section of the statement of cash flows, whether the investor uses the direct or indirect presentation format for operating cash flows.

The classification is important in financial analysis because operating cash flow is intended to represent cash generated from the entity’s ongoing operations, while investing cash flows generally reflect acquiring and disposing of long-lived assets and investments. GAAP differs from IFRS in this area: IFRS permits certain flexibility in the classification of interest and dividends, but U.S. GAAP generally requires dividends received to be operating cash flows. The Financial Accounting Standards Board’s cash-flow classification guidance is summarized in its Accounting Standards Updates, including guidance addressing statement-of-cash-flow classification issues. The SEC also provides useful context on the presentation of cash-flow information in its cash flow statement overview.

QUESTION NO: 140

The chairman of the House Ways and Means committee, who has major sway on spending programs, has been researching the economy and believes that the nation is heading for an inflationary spiral. Inflation is currently not considered a problem. He proposes a fiscal policy solution. Which of the following would not impede his proposition from alleviating the problem?

I.congressional opposition to spending cuts

II.difficulty determining the degree of spending cuts required

III.correctly choosing between tax hikes and spending cuts

IV.impact lag

V.recognition lag

A. III, IV

B. I, II, IV, V

C. II, IV, V

D. II, IV

E. I, II, III, IV, V

F. I, II, V

G. III

ANSWER: G

Explanation:

“III” is the item that would not, by itself, impede the proposed fiscal-policy response. If policymakers seek to restrain aggregate demand in anticipation of an inflationary spiral, contractionary fiscal policy can be implemented through either higher taxes or lower government spending. Both measures reduce the fiscal impulse and, all else equal, help moderate demand-side inflationary pressure. Therefore, choosing appropriately between these two available contractionary tools is a policy-design decision rather than an inherent timing, information, or political barrier to acting. The appropriate mix may depend on the economic setting, distributional objectives, and the desired size and composition of the fiscal adjustment, but the availability of either measure means that the choice itself does not prevent fiscal policy from addressing the anticipated inflation problem. This is consistent with the standard macroeconomic description of contractionary fiscal policy as involving reductions in government expenditure, increases in taxes, or a combination of both. See the OpenStax discussion of fiscal policy and the IMF Fiscal Monitor for discussion of fiscal measures and their macroeconomic role.

QUESTION NO: 141

The weights (in kilograms) of a group of crates being shipped to Panama are 95, 103, 110, 104, 105, 112 and 92. What is the mean deviation?

A. 52.50 kg

B. 5.43 kg

C. 0.53 kg

D. None of these answers

E. 6.25 kg

ANSWER: B

Explanation:

The correct answer is **5.43 kg**. First, calculate the arithmetic mean of the seven crate weights. Their total is 721 kg, and 721 ÷ 7 = 103 kg. Mean deviation, also called mean absolute deviation in this context, is found by calculating each observation’s absolute distance from the arithmetic mean and then averaging those distances.

The absolute deviations from 103 kg are 8, 0, 7, 1, 2, 9, and 11 kg. These values total 38 kg. Dividing by the number of observations gives 38 ÷ 7 = 5.428571..., which rounds to 5.43 kg. The use of absolute values is essential because deviations below and above the mean must not offset one another. Thus, the crate weights differ from their mean weight by 5.43 kg on average.

This calculation follows the standard definition of mean absolute deviation: average the absolute differences between the observations and their mean. See the NIST reference on mean absolute deviation and the NIST discussion of measures of variability.

QUESTION NO: 142

The venture capital industry now funds investments such as

A. companies seeking leveraged buyouts.

B. none of these answers.

C. hedged funds.

D. companies in the mature stage of their life cycle.

E. all of these answers are correct.

F. companies emerging from bankruptcy.

ANSWER: A D F

Explanation:

The venture capital industry's scope has broadened beyond financing only very early-stage start-ups. "companies seeking leveraged buyouts." is correct because venture capital and related private-capital investors may provide capital to management teams undertaking management buyouts or other leveraged transactions. Such investments provide ownership-transition and expansion capital to businesses that are generally more established than start-up ventures.

"companies in the mature stage of their life cycle." is correct in the context of later-stage and expansion financing. A mature business may seek external equity financing to support growth, restructuring, a pre-public-offering expansion, or other strategic developments. This reflects the broader private-capital market's ability to fund companies across more than one point in their development.

"companies emerging from bankruptcy." is correct because turnaround and distressed-investment situations can require new equity capital to reorganize operations, strengthen the balance sheet, and support a viable company after financial distress. These investments are frequently grouped with the expanded set of private-equity-style financing activities described in the question. The CFA Institute's overview of alternative investments discusses private equity's use across venture capital, growth equity, leveraged buyouts, and distressed strategies; see CFA Institute: Alternative Investments. Additional industry context on venture capital and growth financing is available from the British Private Equity & Venture Capital Association.

QUESTION NO: 143

Which of the following changes will most likely shift the demand curve for a normal good to the right?

A. An increase in consumer income.

B. An increase in the price of a substitute good.

C. A change in consumer preferences in favor of the good.

D. An increase in the good's own price.

E. A decrease in the number of buyers in the market.

ANSWER: A B C

Explanation:

A demand curve shifts to the right when consumers demand a greater quantity at every possible price. For a normal good, an increase in consumer income increases demand. A rise in the price of a substitute makes the normal good relatively more attractive and increases its demand. A change in consumer preferences in favor of the good also shifts demand to the right.

A change in the good's own price causes a movement along the existing demand curve rather than a shift of that curve. A decrease in the number of buyers reduces market demand and shifts the demand curve to the left.

QUESTION NO: 144

Which of the following may be used as mechanisms to motivate managers to act in the best interest of the stockholders? I. Managerial compensation

II. Direct stockholder intervention

III. Threat of firing

IV. Threat of takeover

A. IV only

B. I only

C. I, II, III & IV

D. III only

E. I, II & III

F. II only

ANSWER: C

Explanation:

I, II, III & IV is correct because each item is a recognized corporate-governance mechanism for mitigating the agency conflict between a company's managers and its shareholders. Managerial compensation can be structured through equity-based awards, bonuses, and long-term performance incentives so that management's financial outcomes are more closely linked to shareholder value. Shareholders may directly influence management through voting rights, proxy proposals, engagement with the board, and the election of directors. This provides owners with a means to press for actions that support their interests.

The possibility of dismissal also disciplines managers: the board of directors, acting on behalf of shareholders, can replace executives whose performance or conduct does not serve the company and its owners. Finally, the threat of takeover can constrain management. When a firm performs poorly and its market value is depressed, another party may acquire control and replace ineffective managers. These mechanisms collectively help align managerial decision-making with the objective of maximizing shareholder wealth. CFA Institute identifies compensation, monitoring by the board and shareholders, and the market for corporate control as important tools for addressing agency problems. See CFA Institute's corporate governance overview and OECD corporate governance principles.

QUESTION NO: 145

A financial analyst with Smith, Kleen & Beetchnutty is examining shares of a publicly-traded specialty brewer. Assume the following information:

EPS: $1.83

ROE: 19.00%

Growth rate of dividends: 10.85%

Discount rate: 12.50%

Tax Rate 35%

Using this information, what is the dividend payout ratio for this specialty brewer? Further, what is the annual dividend?

A. 50.76%, $0.93

B. The answer cannot be determined from the information provided.

C. 42.90%, $0.79

D. 38.13%, $0.70

E. 57.11%, $1.05

F. 42.90%, $1.05

ANSWER: C

Explanation:

42.90%, $0.79 is correct because the sustainable-growth relationship links growth to return on equity and the earnings retention ratio: *g* = *ROE* × *retention ratio*. Rearranging gives the retention ratio as 10.85% ÷ 19.00% = 57.105%. The dividend payout ratio is the complement of retention, so it equals 1 − 57.105% = 42.895%, or 42.90% when rounded. This means the company is assumed to distribute approximately 42.90% of each dollar of earnings as dividends and retain the remainder to support its expected growth rate. The annual dividend per share is then calculated by applying the payout ratio to earnings per share: $1.83 × 0.42895 = $0.78497, which rounds to $0.79 per share. This use of the retention ratio is consistent with the fundamental-growth framework used in equity valuation, where retained earnings reinvested at ROE generate growth. For further background on the sustainable-growth-rate formulation, see CFA Institute's income statement refresher and Corporate Finance Institute's sustainable growth rate overview.

QUESTION NO: 146

Which of the following statements about contrary-opinion and smart money technicians is CORRECT?

A. A contrary-opinion technician is bearish when the specialist short sale ratio falls below 30%.

B. A smart-money technician buys when futures traders are bullish on stock index futures.

C. When investor credit balances are falling, contrary-opinion technicians are bearish.

D. A smart-money technician takes a bullish position when the yield spread on high quality versus lower-quality bonds increases from 75 basis points to 150 basis points.

ANSWER: C

Explanation:

When investor credit balances are falling, contrary-opinion technicians are bearish. Investor credit balances are cash balances held in brokerage accounts. A decline in those balances indicates that investors are using available cash to purchase securities, reflecting broadly bullish sentiment among the general investing public. Contrary-opinion analysis is founded on the view that extreme or widespread sentiment can be a warning signal: when the public has already become optimistic and committed cash to the market, relatively less buying power may remain to sustain further gains. The contrary-opinion technician therefore interprets falling credit balances as a bearish indicator and would position against the prevailing optimism. This approach differs from smart-money analysis, which seeks to infer market direction from the actions of informed, professional market participants rather than deliberately taking the opposite side of general investor sentiment. The distinction illustrates that technical indicators must be interpreted within the particular technician's framework and with attention to what the indicator is intended to measure. The CFA Institute's curriculum overview is available at CFA Program Curriculum. For a general discussion of sentiment indicators and their use in technical analysis, see CME Group's technical analysis education resources.

QUESTION NO: 147

If a company uses the same discount rate for evaluating all projects, which of the following results is likely?

A. Accepting no projects.

B. Accepting poor, high-risk projects.

C. Accepting only poor, high-risk projects.

D. Accepting only good, low risk projects.

E. Accepting all projects.

ANSWER: B

Explanation:

Accepting poor, high-risk projects is likely because a single company-wide discount rate does not reflect differences in the risk of individual projects' expected cash flows. A high-risk project should be evaluated using a discount rate higher than the firm's average cost of capital, reflecting the greater return required by investors for bearing its additional systematic risk. When the company instead applies one common rate, that rate will generally be too low for high-risk projects. Discounting their projected cash flows at an inappropriately low rate overstates their present values and can make projects with insufficient risk-adjusted expected returns appear to have positive net present values. Consequently, management may approve high-risk investments that would not be acceptable if their cash flows were evaluated using a risk-adjusted required return. This is why sound capital-budgeting practice matches the discount rate to the project's risk, financing characteristics, and exposure to relevant market risks rather than mechanically applying a single hurdle rate to every proposal. Further discussion of project-specific discount rates and risk adjustment is available from NYU Stern's valuation guidance and the CFA Institute capital budgeting refresher reading.

QUESTION NO: 148

Which of the following figures is not explicitly incorporated into the earnings per share (EPS) calculation?

A. Variable costs

B. Common shares outstanding

C. Interest expense

D. None of these answers

E. Fixed costs

F. Sales

ANSWER: D

Explanation:

None of these answers is correct under the expanded EPS calculation assumed by the question. EPS expresses the profit available to common shareholders on a per-share basis. Starting with sales, variable costs and fixed costs are deducted in arriving at operating profit; interest expense is then deducted to arrive at profit before tax; and taxes are applied to determine the earnings available for common shareholders. Dividing those earnings by the number of common shares outstanding produces EPS. Thus, each listed figure is an input to, or is used in deriving an input to, the stated expanded calculation.

In practical financial reporting, EPS is usually presented more compactly as profit or loss attributable to ordinary equity holders divided by the weighted-average number of ordinary shares outstanding. The expanded form in this question simply traces the earnings numerator back through the income statement. This is consistent with the core IAS 33 principle that basic EPS is calculated using profit or loss attributable to ordinary equity holders and the weighted-average number of ordinary shares. See IFRS IAS 33: Earnings per Share and the CFA Program Curriculum.

QUESTION NO: 149

Which of the following is not a current liability?

A. Notes Payable

B. Wages Payable

C. Allowance for Uncollectible Accounts

D. Unearned Revenue

ANSWER: C

Explanation:

Allowance for Uncollectible Accounts is correctly identified as not being a current liability because it is a valuation allowance associated with accounts receivable. Accounts receivable represent amounts customers owe the company and are normally reported as current assets when expected to be collected within the operating cycle or one year. The allowance reduces the receivables balance to the amount the entity expects to realize in cash; it does not represent an amount the entity owes to another party. Accordingly, the balance sheet presents accounts receivable net of the allowance for uncollectible accounts, producing net accounts receivable in the current-assets section. Recognizing this allowance follows the matching and faithful-representation objectives of financial reporting: expected credit losses are reflected in the period in which the related receivables are reported, rather than only when a specific customer default occurs. OpenStax illustrates this presentation as gross accounts receivable less an allowance, yielding net realizable value; see OpenStax, Accounts Receivable. The IFRS presentation framework also distinguishes assets from liabilities based on whether the entity controls a resource versus has a present obligation; see the IFRS Conceptual Framework.

QUESTION NO: 150

An acceptable method for recognizing profit when the collection of cash is in doubt is the _____.

A. installment method

B. percentage-of-completion method

C. consignment method

D. production method

E. completed-contract method

ANSWER: A

Explanation:

The correct answer is **installment method**. This method is appropriate when a sale has occurred but there is meaningful uncertainty about the customer's ability to pay the full amount due. Rather than recognizing the entire gross profit at the date of sale, the seller defers profit recognition and recognizes it proportionately as cash installments are collected. Each cash receipt is separated into a recovery of cost and a portion of gross profit, using the gross-profit rate established at the time of sale. Consequently, reported profit follows actual cash collections, reducing the risk of recognizing income that may never be realized.

This treatment reflects the fundamental revenue-recognition concern that revenue and profit should not be reported before the entity has sufficient evidence that consideration will be collected. In modern accounting standards, collectibility is an important criterion in determining whether a contract with a customer exists and whether revenue recognition is appropriate. The installment method is therefore a useful conservative approach in the specific circumstance described, because it ties recognition of profit to receipt of cash. See the SEC's revenue-recognition guidance in Staff Accounting Bulletin Topic 13 and the FASB's revenue guidance overview at ASC Topic 606.

QUESTION NO: 151

Mr. Taylor states in his will that his $50,000 portfolio of bank CD's will go to his only son. Upon Mr.

Taylor's death, the son sells the CD's and invests the proceeds in a stock mutual fund.

How does this immediately impact M2 and the effective amount money available for transactions?

A. both decrease

B. decrease, increase

C. no change, decrease

D. both increase

E. no change for either

F. decrease, no change

G. increase, decrease

ANSWER: F

Explanation:

decrease, no change is correct. Bank certificates of deposit are time deposits and are included in M2 (assuming they are within the category of small-denomination time deposits used in the M2 definition). When the son redeems the CDs and uses the proceeds to purchase shares in a stock mutual fund, the funds cease to be a bank time deposit included in M2. Shares of stock mutual funds are financial claims on securities rather than deposits or money-market instruments included in M2, so the measured M2 money stock decreases by the amount moved from the CDs into the stock fund.

The effective amount of money available for transactions does not change immediately in the economic sense intended by the question. The inherited funds were held in CDs before the transaction and remain invested after it; the son has shifted the form of a financial asset rather than creating or destroying purchasing power. Thus, this is a measurement effect: a component formerly classified within M2 is exchanged for an asset outside M2 without an immediate change in the underlying effective transaction balances available to the economy. The Federal Reserve's monetary aggregates documentation identifies small-denomination time deposits as an M2 component; see the Federal Reserve H.6 technical Q&A. The Federal Reserve also provides historical aggregate data and definitions at its Money Stock Measures—H.6 release page.

QUESTION NO: 152

The short-interest ratio is equal to

A. the outstanding short interest on an exchange divided by the daily volume of trading on the exchange. A low short-interest ratio would be interpreted by technical analysts as a bearish sign, because of the small potential demand for stocks by those who have sold short by not yet covered their sales.

B. the outstanding short interest on an exchange divided by the daily volume of trading on the exchange. A high short-interest ratio would be interpreted by technical analysts as a bearish sign, because a large amount of short sales indicates investors' expectations of declining share prices.

C. the outstanding short interest on an exchange divided by the market capitalization of shares on the exchange. A low short-interest ratio would be interpreted by technical analysts as a bullish sign, because a small amount of short sales indicates investors' expectations of rising share prices.

D. the outstanding short interest on an exchange divided by the number of long positions held. A high short-interest ratio would be interpreted by technical analysts as a bullish sign, because of the large potential demand for stocks by those who have sold short but not yet covered their sales.

ANSWER: A

Explanation:

The outstanding short interest on an exchange divided by the daily volume of trading on the exchange is the correct definition of the short-interest ratio, commonly called the days-to-cover ratio. It estimates the number of trading days that would theoretically be required for short sellers to buy shares and close their open short positions, assuming trading occurs at the stated average daily volume. Thus, the measure combines the size of outstanding short positions with the market liquidity available for covering them.

In technical analysis, short interest is often viewed from a contrarian perspective. Short sellers must eventually repurchase shares to cover their positions. Consequently, a low short-interest ratio indicates relatively little potential future buying demand from short covering and is interpreted as bearish by this approach. The interpretation reflects the limited amount of short-covering activity that could support prices, rather than treating the short sellers' initial negative expectations as the sole signal. FINRA describes short-interest reporting and its role in reflecting aggregate open short positions: FINRA Short

Interest. Nasdaq also explains the days-to-cover calculation as short interest relative to average daily volume: Nasdaq: Short Interest.

QUESTION NO: 153

If the Central Bank wishes to diminish unemployment, it would attempt to _____ the money supply by _____ short-term interest rates.

A. decrease, increasing

B. stabilize, decreasing

C. stabilize, increasing

D. increase, decreasing

E. increase, increasing

F. stabilize, stabilizing

G. decrease, decreasing

ANSWER: D

Explanation:

The correct completion is **"increase, decreasing."** When a central bank seeks to reduce unemployment, it generally uses expansionary monetary policy to stimulate aggregate demand. Lowering short-term policy interest rates reduces the cost of borrowing for households and businesses. This encourages consumption and business investment, which can increase production and demand for labor. As firms respond to stronger demand by expanding output, they may hire additional workers, helping reduce cyclical unemployment.

Decreasing short-term rates is also a mechanism through which the central bank supports an increase in the money supply and broader credit availability. Lower policy rates can encourage banks to lend and borrowers to use credit, contributing to easier financial conditions. In the standard monetary-policy transmission process tested at CFA Level I, an increase in money supply and a reduction in short-term interest rates are therefore associated with an expansionary stance intended to support economic activity and employment. The ultimate employment effect can vary with economic conditions, inflation expectations, and the responsiveness of borrowers and lenders, but this is the direction predicted by conventional macroeconomic analysis. See the Federal Reserve's overview of monetary policy goals and implementation and the IMF explanation of monetary policy.

QUESTION NO: 154

Consider the following two projects:

Project A

Initial cash outflow:$1,000,000 Cash inflows as follows t1: $500,000 t2: $450,000 t3: $250,000 t4: $150,000 t5: $150,000

Project B

Initial cash outflow: $1,000,000 Cash inflows as follows t1: $150,000 t2: $150,000 t3: $250,000 t4: $450,000 t5: $500,000

Assuming a cost of capital of 9%, no taxes, and a $0.00 salvage value for each project at the end of year 5, what is the NPV of each project? Additionally, which of the two projects has the steeper NPV profile?

A. Project A NPV: $88,596.13, Project B NPV: $110,900.51, Project A has a steeper NPV profile

B. Project A NPV: $114,078.88, Project B NPV: $100,669.59, Project has B has a steeper NPV profile

C. Project A NPV: $234,270.95, Project B NPV: $100,669.59 , Project A has a steeper NPV profile

D. Project A NPV: $234,270.95, Project B NPV: $100,669.59, Project B has a steeper NPV profile

E. Project A NPV: $234,270.95, Project B NPV: $100,669.59, Project A has a steeper NPV profile

ANSWER: D

Explanation:

Project A NPV: $234,270.95, Project B NPV: $100,669.59, Project B has a steeper NPV profile is correct. Net present value is calculated by discounting each future cash inflow at the 9% cost of capital, summing those present values, and subtracting the $1,000,000 initial outlay. For Project A, the calculation is $-1{,}000{,}000 + 500{,}000/1.09 + 450{,}000/(1.09)^2 + 250{,}000/(1.09)^3 + 150{,}000/(1.09)^4 + 150{,}000/(1.09)^5$, giving $234,270.95. Applying the same method to Project B produces $100,669.59. NPV profiles graph a project's NPV across alternative discount rates. Project B's larger inflows occur in years 4 and 5, so their present values are more responsive to a change in the discount rate than earlier cash flows. Consequently, Project B has the steeper NPV profile. This is the same time-value-of-money principle used in capital-budgeting decisions: cash received farther in the future has greater discount-rate sensitivity. See CFA Institute's capital budgeting refresher and OpenStax's NPV discussion.

QUESTION NO: 155

Which of the following is/are true about operating cash flows of a project?

I. The annual operating cash flow equals operating income minus net non-cash expenses.

II. Financing costs are excluded from the operating cash flows.

III. Project evaluation is based on net cash flows, not net income.

A. III only

B. I, II & III

C. I only

D. II & III

E. I & III

F. II only

G. I & II

H. The annual operating cash flow equals operating income minus net non-cash expenses.
II. Financing costs are excluded from the operating cash flows.
III. Project evaluation is based on net cash flows, not net income.

ANSWER: D

Explanation:

II & III is correct. In capital budgeting, operating cash flows are intended to measure the project's incremental cash-generating capacity from operations, independently of how the project is financed. Interest expense, principal repayments, and other financing costs are therefore excluded from the project's operating cash flows. Financing is incorporated separately through the required return or discount rate, commonly the weighted average cost of capital when cash flows are available to all capital providers. This consistency avoids counting financing effects both in the cash flows and again in the discount rate.

Project evaluation uses cash flows rather than accounting net income because investment decisions concern cash that can actually be received, paid, and reinvested over time. Non-cash accounting charges, such as depreciation, affect taxable income and therefore can create tax effects, but they are not themselves cash outflows. A common expression for operating cash flow is after-tax operating income plus non-cash charges, with any applicable changes in working capital considered

separately in deriving project free cash flow. The resulting net incremental cash flows are then used in methods such as net present value and internal rate of return. See OpenStax: Capital Budgeting and CFA Institute: Capital Budgeting.

QUESTION NO: 156

Regarding Standard III (A), which of the following is true?

A. If the employer has publicly acknowledged, in writing, adoption of AIMR's Code and Standards as part of its firm policies, then the member need not give formal written notification.

B. A member does not have to notify the supervisor, if the supervisor is a CFA charterholder.

C. Notification must be given to the chief operating officer (or equivalent), orally or in writing.

D. Notification must always be given, orally or in writing.

E. None of these answers is true.

ANSWER: A

Explanation:

“If the employer has publicly acknowledged, in writing, adoption of AIMR's Code and Standards as part of its firm policies, then the member need not give formal written notification.” is correct under the historical version of the professional-conduct requirements reflected in this question. The underlying purpose of notification was to ensure that the employer knew the member’s professional obligations and the possibility of disciplinary consequences for violations. A firm’s public written adoption of the applicable Code and Standards fulfills that purpose because it establishes, at the organizational level, that those obligations are already recognized as firm policy. Accordingly, a separate individual written notice is not necessary in that specific circumstance. The question uses legacy terminology: AIMR was the former Association for Investment Management and Research, which later became CFA Institute. CFA Institute’s current ethical framework remains the Code of Ethics and Standards of Professional Conduct, although standard numbering and wording have changed since older curriculum editions. Current candidates should use the current curriculum and Standards when applying ethics rules in an examination setting, while recognizing this item’s stated historical context. See CFA Institute’s Code of Ethics and Standards of Professional Conduct and its organizational history.

QUESTION NO: 157

Which of the following statements concerning time-weighted rates of return are correct?

A. They are intended to remove the effect of external cash flows.

B. They are calculated by geometrically linking subperiod returns.

C. They are generally suitable for evaluating a manager who does not control client cash flows.

D. They incorporate the size and timing of client contributions and withdrawals.

E. They can be calculated only when no external cash flows occur.

ANSWER: A B C

Explanation:

Time-weighted return measures are designed to evaluate the performance of an investment manager by removing the effect of external client cash flows. The method divides the overall measurement period into subperiods at each significant external cash flow and geometrically links the returns for those subperiods. Consequently, the measure is generally appropriate when the manager does not control the timing or amount of client contributions and withdrawals.

A money-weighted return, in contrast, incorporates the size and timing of cash flows and is more sensitive to those flows. Time-weighted return does not assume that a portfolio has no external cash flows.

QUESTION NO: 158

Which of the following actions by a central bank are most likely expansionary monetary-policy measures?

A. purchasing government securities.

B. reducing the policy interest rate.

C. lowering commercial-bank reserve requirements.

D. selling government securities.

ANSWER: A B C

Explanation:

purchasing government securities, reducing the policy interest rate, and lowering reserve requirements are correct. A central bank's purchase of government securities adds reserves to the banking system and tends to increase the money supply. A reduction in the policy rate lowers the cost of short-term borrowing and encourages credit creation. Lower reserve requirements permit banks to lend a larger portion of deposits.

Selling government securities has the opposite effect because it withdraws reserves and is therefore a contractionary policy action. CFA Institute discusses monetary policy within its economics curriculum and professional learning resources at CFA Institute: Economics.

QUESTION NO: 159

What annual interest rate, compounded annually, is equivalent to 7% per year, compounded quarterly?

A. 6.88%

B. 7.19%

C. 7%

D. 7.03%

E. 7.09%

ANSWER: B

Explanation:

The equivalent annual rate is 7.19%. A nominal annual rate of 7%, compounded quarterly, credits interest four times during the year. The quarterly periodic rate is therefore 7% ÷ 4, or 1.75%. Each quarter, the account balance is multiplied by 1.0175. Over four quarters, the one-year accumulation factor is $(1.0175)^4 = 1.071859...$, which means that one unit of currency grows to approximately 1.0719 units after one year. The annually compounded rate that produces this same one-year growth is thus 1.071859... − 1 = 0.071859..., or approximately 7.19%.

This is the effective annual rate (EAR): the actual annual return after recognizing the effect of intra-year compounding. The general relationship is $EAR = (1 + \text{stated annual rate}/m)^m - 1$, where m is the number of compounding periods per year. Here, m equals four because compounding is quarterly. This conversion is central to comparing borrowing, lending, and investment rates quoted with different compounding frequencies. CFA Institute's curriculum glossary discusses effective annual rates and periodic compounding; see CFA Institute: Time Value of Money. A practical discussion and formula reference is also available from Investopedia: Effective Annual Interest Rate.

QUESTION NO: 160

Which of the following methods for examining a project's stand-alone risk cannot be effectively conducted without the use of a random number generator? Choose the best answer.

A. Probability Analysis

B. More than one of these answers is correct

C. Monte Carlo Regression

D. Monte Carlo Simulation

E. Scenario Analysis

F. Sensitivity Analysis

ANSWER: D

Explanation:

Monte Carlo Simulation is correct because it evaluates a project's stand-alone risk by repeatedly generating possible combinations of uncertain input values—such as sales volume, prices, costs, discount rates, or project life—and calculating an outcome such as net present value for each iteration. The random number generator is fundamental to this process: it produces random draws from the probability distributions assigned to the input variables. A sufficiently large number of iterations creates a simulated distribution of possible project NPVs, from which an analyst can assess expected value, dispersion, downside risk, and the likelihood of an unfavorable result. In practice, computers use pseudorandom-number algorithms, but these serve the same essential role of supplying randomized samples for the simulation. This approach is particularly valuable when several uncertain variables may move simultaneously and their combined effects on project value are difficult to capture with a few fixed cases. The CFA Institute's discussion of capital budgeting emphasizes evaluating project cash-flow uncertainty and risk in investment decisions; Monte Carlo methods provide a distribution-based way to do so. For an overview of simulation principles and random sampling, see NIST's Monte Carlo method guidance and CFA Institute's Capital Budgeting refresher reading.

QUESTION NO: 161

Debbie Chon, CFA, is evaluating a put option on Lincoln Industrial. Lincoln's current stock price is $64 per share and the company will pay a $0.56 dividend. The 90-day U.S. Treasury bill is yielding 5.3%. Lincoln's 3-month European call option with a strike price of $70 has a premium of $3.50. Based on the put-call parity, calculate the value of the associated Lincoln put option.

A. $8.05

B. $8.60

C. $9.15

ANSWER: C

Explanation:

The **$9.15** value follows from put-call parity for European options on a dividend-paying stock. The relationship is: put value = call value + present value of the strike price + present value of the dividend − current stock price. The three-month strike-price present value is calculated by discounting $70 at the annualized Treasury bill yield for one quarter: $70 ÷ (1 + 0.053 × 0.25) = approximately $69.08. The $0.56 dividend, payable during the option's life, is also discounted for the quarter, yielding approximately $0.55. Substituting the inputs gives a put value of $3.50 + $69.08 + $0.55 − $64.00 = approximately $9.14, which rounds to $9.15. Put-call parity is an arbitrage relationship: a fiduciary call position, adjusted for the present value of known interim cash distributions, must have the same value as a protective-put position. This calculation assumes the stated dividend is known and is paid before expiration. CFA Institute's overview of derivatives is available at CFA Institute; a discussion of put-call parity is available from Options Industry Council.

QUESTION NO: 162

Which of the following statements concerning the standard deviation of investment returns are correct?

A. It measures the dispersion of returns around their mean.

B. It is expressed in the same units as returns.

C. A higher value generally indicates greater total return variability.

D. It measures only systematic risk.

ANSWER: A B C

Explanation:

It measures the dispersion of returns around their mean, **it is expressed in the same units as returns**, and **a higher standard deviation generally indicates greater total return variability** are correct. Standard deviation is the square root of variance and describes how widely periodic returns have varied around their average return. Because it is expressed as a percentage when returns are expressed as percentages, it is more directly interpretable than variance.

Standard deviation measures total variability, not only systematic risk. A diversified portfolio can reduce unsystematic risk, but standard deviation can still reflect changes in systematic market risk. CFA Institute discusses risk and return analysis in its investment foundations and professional-development materials at CFA Institute: Portfolio Management.

QUESTION NO: 163

What can we say if the coefficient of determination is 0.94?

A. Direction of relationship is positive

B. 94% of total variation in one variable is explained by variation in another variable

C. All of these answers are correct

D. Strength of relationship is 0.94

E. None of these answers is correct

ANSWER: B

Explanation:

The statement “94% of total variation in one variable is explained by variation in another variable” is correct. The coefficient of determination, denoted R^2, measures the proportion of the variation in the dependent variable that is explained by the regression model’s explanatory variable or variables. Thus, an R^2 of 0.94 means that the model accounts for 94% of the observed variation in the dependent variable around its mean. In the simple two-variable setting implied by the question, this can be expressed as 94% of variation in one variable being explained by variation in the other variable through the fitted linear relationship.

R^2 is a measure of explanatory power or goodness of fit, expressed as a proportion from 0 to 1 (or 0% to 100%). It does not itself identify whether the relationship is positive or negative; direction is provided by the sign of the correlation coefficient or regression slope. The CFA Institute’s quantitative methods materials distinguish correlation, which conveys direction and strength, from the coefficient of determination, which conveys the proportion of variation explained. See the CFA Program curriculum overview and this coefficient of determination reference.

QUESTION NO: 164

If you deposit $150 a month, beginning next month, for 20 years into an account paying 6% per year, compounded monthly, how much is in your account after the last deposit?

A. $70,343.82

B. $48,833.09

C. $49,904.67

D. $143,582.01

E. $69,306.13

ANSWER: E

Explanation:

The account value is **$69,306.13**. Because deposits begin next month, the cash flows occur at the end of each monthly period. This is an ordinary annuity. The annual quoted rate of 6% compounded monthly must be converted to a monthly periodic rate: 6% ÷ 12 = 0.5%, or 0.005 per month. Twenty years of monthly deposits produces 20 × 12 = 240 deposits.

The future value of an ordinary annuity is calculated as: payment × [((1 + periodic rate)$^{\text{number of periods}}$ − 1) ÷ periodic rate]. Substituting the facts gives 150 × [((1.005)^{240} − 1) ÷ 0.005] = 69,306.13, rounded to the nearest cent. This amount is measured immediately after the final, 240th deposit, so no additional month of interest is added after that payment. On a financial calculator, use 240 for the number of periods, 0.5 for the monthly rate, zero present value, and 150 for the periodic payment before computing future value. The ordinary-annuity timing and future-value relationship are described by OpenStax Principles of Finance and Investopedia's ordinary annuity reference.

QUESTION NO: 165

Intelligent Semiconductor is considering the development of a new data storage medium, which will allow tremendous increases in the efficiency of its customer's high-end server lines. The development of the new system will take place in the firm's existing facilities, and the storage costs for the additional equipment are expected to be residual in nature. The following information applies to this project:

Rent expense for the firm's existing facilities ($10,500)

Initial cash outlay ($50,000) t1: $15,000 t2: $11,000 t3: $11,000 t4: $15,000 t5 ($10,000) t6 ($10,000) t7 $25,000 Discount rate: 9%

Assuming no taxes or related charges, that the initial cash outlay does not include any sunk costs, and a $0.00 salvage value at t7, what is the MIRR of this project?

A. 7.262%

B. 6.231%

C. None of these answers

D. 12.461%

E. This problem has more than one MIRR

F. 14.606%

ANSWER: A

Explanation:

7.262% is the project's modified internal rate of return. MIRR applies the stated 9% rate consistently: positive project cash flows are compounded forward to the terminal date, while negative cash flows are discounted back to time zero. The rent for the firm's existing facilities is not an incremental project cash flow and is therefore excluded from the capital-budgeting cash-flow stream. This treatment follows the principle that project analysis uses only cash flows that change as a consequence of accepting the project.

Compounding the positive cash flows to time 7 produces a terminal value of approximately $102,034.15: the inflows at times 1 through 4 are compounded for their remaining periods at 9%, and the $25,000 received at time 7 is already at the terminal date. The present value of the negative cash flows is approximately $62,462.00, consisting of the $50,000 initial outlay plus

the present values of the $10,000 outflows at times 5 and 6. The MIRR is therefore calculated as (102,034.15 / 62,462.00)^(1/7) − 1, which equals approximately 0.072623, or 7.262%.

This approach is appropriate because MIRR explicitly specifies the financing and reinvestment rate rather than relying on the ordinary IRR reinvestment assumption. CFA Institute's capital-budgeting refresher discusses evaluating projects using relevant incremental cash flows and return measures: CFA Institute: Capital Budgeting.

QUESTION NO: 166

Which of the following characteristics is not necessary for the NPV and MIRR calculations to consistently produce similar results?

A. Projects must have cash flows

B. Projects must have equal lifespans

C. Project must be of equal scale

D. Projects must be of equal size

E. Projects must be independent

ANSWER: E

Explanation:

"Projects must be independent" is not necessary for net present value (NPV) and modified internal rate of return (MIRR) to give consistent capital-budgeting conclusions. Independence describes the decision relationship between projects: accepting one independent project does not prevent accepting another. That relationship affects whether projects are evaluated separately or ranked against each other, but it is not a mathematical condition that determines the relationship between NPV and MIRR.

For comparable project-ranking results, the important conditions are that the projects being compared have equal scale and equal lives. Under those conditions, MIRR—which discounts negative cash flows at the financing rate and compounds positive cash flows at the reinvestment rate—will rank normal investment projects consistently with NPV when the appropriate required return is used. NPV remains the primary value-maximizing criterion because it measures the direct increase in shareholder wealth in currency terms; MIRR is a rate-of-return measure designed to avoid the unrealistic reinvestment assumption associated with a conventional IRR.

Accordingly, independence is not required for consistency between these two evaluation methods. See the CFA Institute's Capital Budgeting refresher reading and its discussion of investment decision-making.

QUESTION NO: 167

Which of the following statements is most correct?

A. All of these statements are correct.

B. Stockholders pay no income tax on dividends reinvested in a dividend reinvestment plan.

C. Investors receiving stock dividends must pay taxes on the new shares at the time the stock dividends are received.

D. None of these statements are correct.

E. "New-stock" dividend reinvestment plans are similar to stock dividends because they both increase the number of shares outstanding but don't change the total equity of a firm.

ANSWER: E

Explanation:

"New-stock" dividend reinvestment plans are similar to stock dividends because they both increase the number of shares outstanding but don't change the total equity of a firm. This is the most correct statement. Under a new-stock dividend reinvestment plan, the company declares a cash dividend and participating shareholders use that dividend to acquire newly issued shares. The dividend declaration reduces retained earnings, while the issuance of shares brings an equal amount of value back into shareholders' equity, generally as additional paid-in capital. Thus, the composition of equity changes, but total equity is unchanged by the combined dividend-and-reinvestment transaction. The number of shares outstanding rises because the company issues new shares rather than having participants purchase already outstanding shares in the market.

A stock dividend has the same broad balance-sheet effect: additional shares are distributed and an amount is reclassified within equity, typically from retained earnings to contributed capital, without changing total shareholders' equity. The similarity is therefore specifically the increase in shares outstanding coupled with no change in aggregate equity. For further discussion of dividend reinvestment plans and their treatment, see the IRS guidance on Investment Income and Expenses and the SEC's investor education material on dividends.

QUESTION NO: 168

Assume the following information about a large food distributor.

Retention rate = 0.38

Net income / sales = 0.11

Total assets / common equity = 1.9 Sales / total assets = 0.69

What is the expected annual growth rate of this firm's dividends?

A. 8.94%

B. None of these answers is correct.

C. 5.48%

D. 11.51%

E. 6.14%

F. The answer cannot be determined from the information provided.

ANSWER: C

Explanation:

The expected annual growth rate of dividends is **5.48%**. Under the sustainable-growth dividend model, growth equals the retention rate multiplied by return on equity: $g = b \times ROE$. The retention rate of 0.38 represents the proportion of net income reinvested in the business rather than distributed currently, supporting future earnings and dividend growth.

Return on equity can be obtained using the DuPont decomposition. Multiply net profit margin by total asset turnover and financial leverage: *ROE = (net income/sales) × (sales/total assets) × (total assets/common equity)*. Thus, ROE equals 0.11 × 0.69 × 1.9 = 0.14421, or 14.421%. Applying the retention rate gives $g = 0.38 \times 0.14421 = 0.05480$, which is approximately 5.48% per year.

This calculation assumes the firm can continue earning the same return on equity and retains the stated proportion of earnings. The DuPont framework's connection between profitability, asset-use efficiency, leverage, and ROE is described by Investopedia's DuPont Analysis overview. For dividend-policy context, see OpenStax Principles of Finance: Dividend Policy.

QUESTION NO: 169

Suppose you need $500 in 9 months. How much must you deposit today, if the deposit will earn interest at 6% per year, compounded monthly?

A. $522.96

B. $478.05

C. $381.95

D. $295.95

E. $291.77

ANSWER: B

Explanation:

$478.05 is correct because the required deposit is the present value of a $500 future amount discounted for nine monthly compounding periods. A stated annual rate of 6% compounded monthly produces a monthly periodic rate of 0.5% (6% ÷ 12). The relevant time value of money relationship is PV = FV ÷ $(1 + r/m)^{mt}$. Here, the future value is $500, the periodic monthly rate is 0.005, and the number of periods is 9. Thus, PV = 500 ÷ $(1.005)^9$ = 478.05, rounded to the nearest cent. Depositing this amount today allows monthly interest to compound for each of the nine months, growing the balance to the required $500. This is a standard present-value calculation: because the cash flow is a single future lump sum and no interim payments occur, the payment input is zero. The CFA Institute curriculum's time value of money framework distinguishes the nominal annual rate from the periodic rate used when compounding occurs more than once per year. See the CFA Institute Time Value of Money refresher reading and Investopedia's present value overview.

QUESTION NO: 170

Antun Blasevic manages a fixed-income mutual fund which holds a variety of high-yield corporate bonds. His largest position is in Garjun Technologies, which currently trades to yield 8.75%, while the equivalent maturity U.S. Treasury yields only 5.25%. Which of the following is the most accurate description of the yield spread between Garjun Technologies and U.S. Treasuries?

A. The yield ratio is 1.67.

B. The absolute yield spread is 67%.

C. The relative yield spread is 350 basis points.

D. The absolute yield spread is 350 basis points.

ANSWER: D

Explanation:

The absolute yield spread is 350 basis points. A yield spread is generally expressed as the difference between the yield on a bond and the yield on a benchmark security of comparable maturity. Here, the corporate bond yield is 8.75% and the comparable U.S. Treasury yield is 5.25%, so the spread is 8.75% − 5.25% = 3.50%, or 350 basis points. One percentage point equals 100 basis points; therefore, 3.50 percentage points equals 350 basis points. This spread quantifies the additional annual yield investors require to hold Garjun Technologies' high-yield corporate debt instead of a maturity-matched U.S. Treasury. In fixed-income analysis, that additional required return commonly reflects compensation for credit risk and other differences relative to the Treasury benchmark. A yield ratio can also be calculated as 8.75% / 5.25% = approximately 1.67, but it is a ratio rather than the conventional absolute yield-spread measure requested. The CFA Institute's fixed-income topic area discusses yield measures and credit-related return analysis: CFA Institute Fixed-Income Refresher Readings. For the standard definition and use of basis points in market quotations, see the U.S. SEC Investor.gov basis-point glossary.

QUESTION NO: 171

Susan Jackson, with HRS Investments, is appearing in court as an expert witness. She will have to use research done at HRS, to which she did not contribute directly, during her testimony. Which of the following is true, in relation to Jackson's need to comply with Standard II (C)?

A. Jackson is representing herself and may or may not attribute any of HRS's research.

B. Jackson is representing HRS and must attribute any of HRS's research.

C. Jackson is representing herself and must attribute any of HRS's research.

D. There is not enough information given to answer this question.

E. Jackson is representing HRS and may or may not attribute any of HRS's research.

ANSWER: C

Explanation:

“Jackson is representing herself and must attribute any of HRS's research.” is correct. Under CFA Institute Standard II(C), Misrepresentation, members and candidates must not knowingly make misrepresentations relating to investment analysis, recommendations, actions, or other professional activities. This includes clearly identifying the source of research, analysis, data, models, and conclusions when the work was prepared by someone else. Because Jackson did not directly contribute to the HRS research she plans to use, presenting it in testimony without appropriate attribution could incorrectly imply that she personally created or developed that work.

When serving as an expert witness, Jackson’s professional opinions and testimony are her own; she is not merely acting as HRS’s organizational representative. Accordingly, she must distinguish her own analysis from research produced by HRS and, where applicable, identify both HRS and the research team as the source. Proper attribution enables the court and other users of her testimony to understand the origin of the information and assess it fairly. CFA Institute’s Standards of Practice Handbook discusses the prohibition on plagiarism and the requirement to acknowledge the work of others under Standard II(C): Misrepresentation. The governing ethical framework is also available in the CFA Institute Code of Ethics and Standards of Professional Conduct.

QUESTION NO: 172

Termite Terminators has a debt-to-equity ratio of 50%. The equity consists of 80,000 common stock, valued at the year-end at 65. The preferred equity consists of 30,000 shares of par value 25 and coupon of 6%. The debt carries a coupon rate of 8%. During the year, Termite earned 1.2 million and had an average stock price of 75. It also has 40,000 warrants attached to the debt, each exercisable at 68. Termite's reported Diluted EPS should be:

A. 14.64

B. 13.79

C. 15.08

D. 15.00

ANSWER: B

Explanation:

13.79 is the correct diluted EPS. Diluted EPS begins with earnings available to common shareholders. Termite’s earnings are $1,200,000, from which the annual preferred dividend must be deducted: 30,000 preferred shares × $25 par value × 6% = $45,000. Thus, earnings available to common shareholders equal $1,155,000.

The warrants are included using the treasury stock method because their $68 exercise price is below the $75 average market price, meaning that exercise would be dilutive. Exercise of 40,000 warrants would produce $2,720,000 in proceeds. At the average market price, those proceeds would hypothetically repurchase 36,266.67 common shares ($2,720,000 ÷ $75). The incremental shares are therefore 3,733.33: 40,000 issued less 36,266.67 repurchased.

Diluted weighted-average shares are 83,733.33, calculated as 80,000 existing common shares plus 3,733.33 incremental shares. Dividing $1,155,000 by 83,733.33 gives diluted EPS of approximately $13.79. This treatment reflects the treasury stock method’s assumption that warrant proceeds are used to repurchase shares at the period’s average market price. See IAS 33: Earnings per Share and CFA Institute financial statement analysis resources.

QUESTION NO: 173

Sixty percent of the customers of a fast food chain order the Whopper, fries and a drink. If a random sample of 15 cash register receipts is selected, what is the probability that 10 or more will show that the above three food items were ordered?

A. 0.186

B. None of these answers

C. 1,000

D. 0.403

E. 0.000

ANSWER: D

Explanation:

0.403 is correct because the number of receipts showing the specified three-item order follows a binomial distribution. Each selected receipt is one trial, an order containing all three items is a success, the number of trials is 15, and the probability of success on each trial is 0.60. Letting X denote the number of such receipts, the required probability is $P(X \geq 10)$, not merely $P(X = 10)$.

Using the binomial probability formula, $P(X = k) = [15 \text{ choose } k](0.60)^{k}(0.40)^{15-k}$, the relevant values for k = 10 through 15 are added: 0.1859 + 0.1268 + 0.0634 + 0.0219 + 0.0047 + 0.0005. The total is approximately 0.4032, which rounds to 0.403. Thus, there is about a 40.3% probability that at least 10 of the 15 randomly selected receipts contain the Whopper, fries, and drink combination. The binomial model is appropriate because the sample size is fixed and each receipt is classified according to whether it does or does not show the specified order. See OpenStax: Binomial Distribution and NIST: Binomial Distribution.

QUESTION NO: 174

What does it mean if r = -1.00?

A. High values of one variable are associated with low values of the other variable

B. Dependent variable can be perfectly predicted by the independent variable

C. All of the variation in the dependent variable can be accounted for by the independent variable

D. Coefficient of nondetermination equals zero

E. All of these answers are correct

ANSWER: E

Explanation:

The correct answer is *All of these answers are correct*. A correlation coefficient of −1.00 denotes a perfect negative linear relationship between two variables. Every observation lies exactly on a straight line with a negative slope, so higher values of one variable are associated consistently with lower values of the other variable. In the simple linear-regression setting, this exact linear relationship means the dependent variable is perfectly predicted by the independent variable: there is no residual variation around the fitted regression line.

Correlation's coefficient of determination is calculated as r^2. When r = −1.00, $r^2 = 1.00$, meaning that 100% of the variation in the dependent variable is accounted for by its linear relationship with the independent variable. The coefficient of nondetermination is $1 - r^2$; consequently, it equals zero. The negative sign communicates the direction of the relationship, while the absolute value of one communicates its perfect linear strength. These definitions are consistent with the treatments of correlation and the coefficient of determination in NIST's Engineering Statistics Handbook and OpenStax Introductory Statistics.

QUESTION NO: 175

You are examining a group of 3 stocks within an industry. The industry average debt-to-equity ratio is expected to be 40%. For these stocks, the average debt-to-equity ratios have been 50%, 40%, and 30%. What is the mean absolute deviation of debt-to-equity ratios from the industry average?

A. 13.3%.

B. 6.67%.

C. 20.0%.

D. 0%.

ANSWER: B

Explanation:

The correct answer is **6.67%.** Mean absolute deviation is the arithmetic average of the absolute differences between each observation and the specified reference value. Here, the applicable reference value is the industry average debt-to-equity ratio of 40%. The three absolute deviations are |50% − 40%| = 10%, |40% − 40%| = 0%, and |30% − 40%| = 10%. Their sum is 20 percentage points. Dividing this total by the three stocks gives 20% ÷ 3 = 6.666...%, which rounds to 6.67%.

Using absolute values is essential because the objective is to measure the typical magnitude of dispersion around the industry benchmark. Positive and negative deviations are therefore treated equally rather than offsetting one another. In CFA quantitative methods, dispersion measures describe the spread of observations around a central value or other stated benchmark; mean absolute deviation specifically averages the absolute deviations. This result indicates that, on average, the individual companies' debt-to-equity ratios differ from the industry average by approximately 6.67 percentage points. For background on absolute deviation and related measures of variability, see CFA Institute's Quantitative Concepts refresher and NIST's discussion of measures of spread.

QUESTION NO: 176

Standard I deals with _____.

A. Use of Professional Designation

B. Duty to Employer

C. Obligation to Inform Employer of Code and Standards

D. Professional Misconduct

E. Plagiarism

F. Fundamental Responsibilities

G. Disclosure of Conflicts to Employer

H. None of these answers

I. Professionalism

ANSWER: I

Explanation:

Professionalism is correct because Standard I of the CFA Institute Standards of Professional Conduct is titled "Professionalism." It establishes the foundational expectations for ethical conduct by CFA Institute members and candidates in their professional activities. Its provisions address knowledge of and compliance with applicable laws, independence and objectivity, avoidance of misrepresentation, and responsibilities related to professional misconduct. These requirements help ensure that investment professionals act with integrity, maintain the credibility of the profession, and preserve public confidence in capital markets.

The current organization and titles of the Standards are published by CFA Institute in the *Code of Ethics and Standards of Professional Conduct*. Candidates should use the current CFA Institute framework when identifying a standard by its Roman numeral, rather than relying on legacy classifications that may have used titles such as “Fundamental Responsibilities.” See CFA Institute’s Code of Ethics and Standards of Professional Conduct and its CFA Program curriculum for the authoritative structure and learning materials.

QUESTION NO: 177

The formula for joint probability is given by:

A. P(AB) = P(A | B) * P(A)

B. P(AB) = P(A | B) / P(B)

C. P(AB) = P(A | B) * P(B)

D. P(AB) = P(A | B) / [P(B) * P(A)]

ANSWER: C

Explanation:

The formula $P(AB) = P(A \mid B) * P(B)$ is correct because a joint probability measures the likelihood that events A and B occur together. Conditional probability, $P(A \mid B)$, measures the probability of A occurring given that B has already occurred. Multiplying that conditional likelihood by the unconditional probability that B occurs, $P(B)$, gives the probability of both events occurring: $P(A \cap B) = P(A \mid B)P(B)$. This relationship follows directly by rearranging the conditional-probability definition, $P(A \mid B) = P(A \cap B) / P(B)$, provided that $P(B) > 0$. In CFA Level I probability questions, the notation P(AB) is commonly used as shorthand for P(A ∩ B), meaning the intersection, or simultaneous occurrence, of A and B. The multiplication rule is particularly useful when one event’s probability depends on whether the other event occurred, such as estimating the probability of a borrower both being assigned a particular credit rating and subsequently defaulting. The CFA Institute’s curriculum topic outline includes probability concepts within Quantitative Methods; see CFA Program Curriculum. For a formal presentation of the multiplication rule and conditional probability, see NIST Engineering Statistics Handbook.

QUESTION NO: 178

What is the median of 26, 30, 24, 32, 32, 31, 27 and 29?

A. 32

B. 30

C. None of these answers

D. 29

E. 29.5

ANSWER: E

Explanation:

The median is **29.5**. The median is the value that divides an ordered data set into two equal halves. First, arrange the eight observations from smallest to largest: 24, 26, 27, 29, 30, 31, 32, 32. Because the sample contains an even number of observations, there is no single middle observation. Instead, the median is calculated as the arithmetic average of the two central values. In this ordered series, the fourth observation is 29 and the fifth observation is 30. Their average is (29 + 30) / 2, which equals 29.5. This calculation is consistent with the standard CFA Level I quantitative-methods definition of the median for an even-sized data set. The median is a measure of central tendency that identifies the center based on rank or position after sorting, rather than being determined by every observation’s magnitude in the same way as the arithmetic mean. For further discussion of measures of central tendency and the median, see CFA Institute’s Quantitative Methods refresher reading and NIST’s explanation of the median.

QUESTION NO: 179

Congress passes a law requiring the government to pay certain debts of companies that have declared bankruptcy. Which of the following terms most accurately describes this program?

A. supply-side

B. automatic stabilizer

C. expansionary fiscal policy

D. moral hazard

E. none of these answers is correct

F. monetary policy

ANSWER: B

Explanation:

automatic stabilizer is correct because the program's fiscal effect is triggered by economic conditions under rules established in advance, rather than requiring a new discretionary policy decision each time the economy weakens. Corporate bankruptcies generally become more frequent during an economic downturn. As those bankruptcies increase, the government's required payments of qualifying debts would increase automatically. These payments support aggregate demand by cushioning the financial consequences of business failures, while also causing the government budget balance to deteriorate during weak periods.

Conversely, when economic conditions improve and bankruptcies decline, fewer qualifying payments are made. Government outlays under the program therefore fall automatically, reducing the program's fiscal support without further legislative action. This countercyclical pattern—larger deficits or smaller surpluses in contractions and smaller deficits or larger surpluses in expansions—is the defining economic role of an automatic stabilizer. The essential feature is not simply that the government makes a payment, but that the payment varies predictably with the business cycle through a pre-existing legal mechanism. For a discussion of automatic stabilizers and their role in moderating changes in economic activity, see the International Monetary Fund's overview of fiscal policy and the Congressional Budget Office discussion of automatic stabilizers.

QUESTION NO: 180

Emmy Noether is a senior division manager at Harding & Harding, a money management firm. Emmy is quite fastidious about following the rules of the investment industry and has established specific procedures and guidelines designed to prevent any violations. Recently, it surfaced that one of the employees reporting to Emmy, William Bathwater, had been secretly using inside information on a computer maker to generate profits in his portfolio. William had been extremely clever at hiding these profits and only a serendipitous audit by the Compliance Department revealed the pattern. Emmy, in her capacity as William's supervisor, has:

A. has not violated any standard in the AIMR code of ethics.

B. none of these answers.

C. violated Standard III (E) - Responsibilities of Supervisors - by failing to check William's behavior.

D. violated Standard III (B) - Duty to the Employer - by failing to check William's behavior.

ANSWER: A

Explanation:

"has not violated any standard in the AIMR code of ethics." is correct because a supervisor's obligation is to make reasonable efforts to prevent and detect violations by personnel subject to her supervision. Emmy established specific procedures and guidelines intended to prevent investment-industry violations, demonstrating that she exercised the diligence expected of a supervisor. The facts do not indicate that these controls were inadequate, that Emmy ignored warning signs, or that she failed to act on knowledge of William's misconduct. Instead, William deliberately concealed his use of material

nonpublic information, and the conduct was discovered only through an audit. Supervisory responsibility does not impose strict liability: a supervisor is not automatically responsible whenever a subordinate commits a concealed violation despite reasonably designed and implemented compliance measures. Under the current CFA Institute Standards, this principle is addressed in Standard IV(C), Responsibilities of Supervisors; older AIMR materials classified the supervisory standard differently. The key is whether the supervisor made reasonable efforts to establish, maintain, and enforce an effective compliance system in light of the circumstances. On the stated facts, Emmy did so and therefore has not violated a professional-conduct standard. See the CFA Institute Standards of Practice Handbook and guidance and the CFA Institute Code of Ethics and Standards of Professional Conduct.

QUESTION NO: 181

The following information should be used according to the provisions of SFAS 95 (Statement of Cash flows) and using the following data.

Net Income $50,000

Provision for bad debts $2,000

Increase in Inventory $1,000

Increase in accounts payable $2,000 Purchase of new equipment $15,000

Sale of equipment for $10,000 gain $20,000

Depreciation expense $5,000

Repurchase of common stock $10,000

Payment of dividend $4,000 Interest payment $3,000

What is net cash flow from investing?

A. $10,000

B. ($15,000)

C. ($5,000)

D. $5,000

ANSWER: D

Explanation:

$5,000 is the net cash flow from investing. Cash flows from investing activities include cash paid to acquire long-lived assets, such as equipment, and cash proceeds received from disposing of those assets. Here, the company paid $15,000 to purchase new equipment, creating an investing cash outflow. It also received $20,000 from the equipment sale, creating an investing cash inflow. Netting these cash flows gives $20,000 minus $15,000, or a net investing cash inflow of $5,000.

The gain associated with the equipment sale is not itself an investing cash flow. A gain affects net income and is relevant when reconciling net income to operating cash flow under the indirect method, but the investing section reports the actual cash proceeds received from the disposal. Similarly, depreciation, working-capital changes, dividends, interest, and common-stock repurchases do not alter the calculation of cash flow from investing for this question. SFAS 95's cash-flow presentation requirements are now incorporated into FASB ASC Topic 230; see the FASB Accounting Standards Codification, Topic 230—Statement of Cash Flows and CFA Institute's Understanding Cash Flow Statements.

QUESTION NO: 182

What annual deposit would you need to make, beginning in one year, into an account paying 7% per year, compounded annually, in order to have $50,000 in it after 20 years, assuming that the account has nothing in it today?

A. $1,129.56

B. $1,219.65

C. $4,719.65

D. $1,291.56

E. $2,191.65

ANSWER: B

Explanation:

$1,219.65 is correct because the first deposit occurs one year from today, making the deposits an ordinary annuity. There are 20 annual deposits, at the ends of years 1 through 20, and the account must reach a future value of $50,000 at the end of year 20. The applicable future-value-of-an-ordinary-annuity relationship is $FV = PMT \times [((1 + r)^n - 1) / r]$. Substituting the known values gives $50,000 = PMT \times [((1.07)^{20} - 1) / 0.07]$. Solving for the annual payment gives $PMT = 50,000 \times 0.07 / [(1.07)^{20} - 1] = 1,219.65$, rounded to the nearest cent. On a financial calculator, use 20 for N, 7 for I/Y, 0 for PV, and 50,000 for FV, then compute PMT with payments set to END mode. Depending on the calculator's cash-flow sign convention, the payment may display as negative; its required deposit amount is the positive magnitude, $1,219.65. The ordinary-annuity timing convention and future-value calculation are described in OpenStax's future value of an annuity discussion. CFA Institute's approved calculator policy is available at CFA Program calculator policy.

QUESTION NO: 183

In a research report, a securities analyst with Smith, Kleen & Beetchnutty claims that the newly issued perpetual preferred stock of Ludicrous Telecom should be purchased because its current market price does not reflect its "intrinsic value." The analyst cites a higher valuation as evidenced by the results produced by the perpetuity valuation model. Assume the following information:

Market price of Ludicrous Telecom preferred stock: $20.75

Quarterly preferred dividend: $0.80

Expected return on the market: 14.75% per year

Risk-free rate of return: 5.00% per year

Given this information, are the claims of the analyst justified? If not, at what price is the preferred stock of Ludicrous Telecom fairly valued?

A. None of these answers is correct.

B. $4.05

C. The answer cannot be calculated from the information provided.

D. $21.70

E. $16.00

F. $5.42

ANSWER: C

Explanation:

The answer cannot be calculated from the information provided. A perpetually fixed-dividend preferred share is valued using the perpetuity formula: value equals the annual dividend divided by the investor's required return on that preferred share. The quarterly dividend permits calculation of the annual dividend: $0.80 × 4 = $3.20. However, the required return is essential to convert that annual cash flow into a present value, and it is not supplied.

The market's expected return and the risk-free rate alone do not establish Ludicrous Telecom preferred stock's required return. If a capital asset pricing model approach were intended, the security's beta would also be needed to determine its risk premium and required return. Alternatively, a required yield could be estimated from comparable preferred issues, credit risk, liquidity, tax treatment, and contractual features, but none of those inputs is provided. Therefore, no defensible intrinsic value or conclusion that the $20.75 market price is too low can be derived from the stated facts. CFA Institute's curriculum overview identifies discounted cash-flow valuation as a core equity-analysis concept; see CFA Program Curriculum. For the standard perpetuity present-value relationship, see Investor.gov's overview of preferred stock.

QUESTION NO: 184

Affirmative action commitments by industrial organizations have led to an increase in the number of women in executive positions. Satellite Office Systems has vacancies for two executives, which it will fill from among four women and six men. What is the probability that no woman is selected?

A. None of these answers

B. 2/15

C. 1/3

D. 8/15

E. 1/5

ANSWER: C

Explanation:

The correct answer is **1/3**. "No woman is selected" means that both executive vacancies must be filled by men. There are six men among the ten available candidates. For the first vacancy, the probability of selecting a man is 6/10. Once a man has been selected, five men remain among the nine remaining candidates, so the probability that the second selection is also a man is 5/9. Because both events must occur, multiply the sequential probabilities: (6/10) × (5/9) = 30/90 = 1/3. Equivalently, there are C(10, 2) possible pairs of selected executives and C(6, 2) all-male pairs, giving C(6, 2)/C(10, 2) = 15/45 = 1/3. This is a selection without replacement, so the candidate pool changes after the first executive is chosen. The calculation uses the multiplication rule for dependent events, a core probability technique used in quantitative analysis. See the CFA Program curriculum overview and the OpenStax discussion of probability rules.

QUESTION NO: 185

The objective of analysis of alternative economies and security markets in the three-step, topdown approach is to decide how to allocate investment funds

A. among countries and industries.

B. among countries.

C. among countries and industries, and between bonds stock and cash.

D. between bonds, stock and cash.

E. among countries and between bonds, stock and cash.

ANSWER: E

Explanation:

"among countries and between bonds, stock and cash." is correct because the first stage of a top-down investment process is broad asset allocation and market selection. At this level, the investor evaluates alternative economies and their security markets to determine where capital should be invested geographically and how it should be divided across major asset classes, such as equities, fixed-income securities, and cash or cash equivalents. Economic conditions—including expected growth, inflation, interest rates, exchange-rate considerations, and business-cycle position—affect both expected return and

risk across countries and asset classes. This makes the initial decision a high-level portfolio-construction choice rather than a decision about particular companies or industries. The output is a strategic view of the markets and broad security categories that deserve portfolio weight, providing the framework for later, more detailed analysis. CFA Institute's discussion of portfolio management emphasizes that asset allocation is a central driver of a portfolio's risk and return characteristics; see the CFA Institute Portfolio Management Overview. For additional context on the role of asset allocation in investment planning, see the U.S. SEC Investor.gov asset-allocation guidance.

QUESTION NO: 186

Which of the following marketable securities would provide the greatest liquidity and stability?

A. None of these answers

B. All of these answers

C. AA corporate bonds that mature in 5 years

D. Common stock of a publicly held firm

E. U.S. treasury bills

ANSWER: E

Explanation:

U.S. treasury bills provide the greatest combination of liquidity and stability. Treasury bills are short-term obligations of the U.S. government, issued with maturities of one year or less. Their short remaining time to maturity generally means that their market values are less sensitive to changes in interest rates than the values of longer-term bonds. This limited price volatility supports stability for an investor managing short-term cash balances. They also trade in an exceptionally deep, active secondary market, allowing holders to convert them to cash promptly with minimal transaction costs and little risk of a material price concession. The U.S. Treasury's description of Treasury bills confirms that bills are short-term securities and explains their regular issuance and maturity characteristics: TreasuryDirect: Treasury Bills. Their status as direct obligations of the U.S. government, together with broad institutional demand and standardized issuance, makes Treasury bills a core cash-management instrument. CFA Institute's discussion of money market securities also identifies Treasury bills as highly liquid short-term government instruments: CFA Institute: Fixed-Income Markets for Corporate Issuers.

QUESTION NO: 187

Under U.S. GAAP, which of the following cash flows are most likely classified as cash flows from operating activities?

A. Cash received from customers.

B. Cash paid to suppliers.

C. Cash paid to employees.

D. Interest paid on debt.

E. Cash paid to acquire equipment.

F. Dividends paid to common shareholders.

ANSWER: A B C D

Explanation:

Cash received from customers, cash paid to suppliers, cash paid to employees, and interest paid are generally classified as operating cash flows under U.S. GAAP. Operating activities arise from the entity's principal revenue-producing activities and other activities that are not investing or financing activities.

Cash paid to acquire equipment is an investing cash flow because it relates to the purchase of a long-lived asset. Dividends paid to shareholders are financing cash flows because they represent distributions to the providers of equity capital.

QUESTION NO: 188

The least squared regression minimizes the:

A. adjusted R-square.

B. absolute value of the distance between the observed points and the regression line.

C. explained variance.

D. the square of the distance between the observed points and the regression line.

ANSWER: D

Explanation:

Least squares regression selects the regression-line coefficients that minimize the sum of squared residuals. A residual is the vertical difference between an observed dependent-variable value and the value predicted by the fitted regression line. Squaring each distance prevents positive and negative residuals from offsetting each other and gives greater weight to larger prediction errors. Thus, the appropriate description is “the square of the distance between the observed points and the regression line,” more precisely understood as minimizing the sum of those squared vertical distances across all observations. This fitting criterion produces the ordinary least squares (OLS) estimates used in linear regression analysis. Under the standard linear-regression assumptions, OLS has important statistical properties, including being the best linear unbiased estimator of the regression coefficients. The coefficient of determination and adjusted coefficient of determination are statistics used to assess in-sample fit after the line has been estimated; they are not the quantity directly minimized in estimating the line. For further background on the least-squares criterion and residuals, see NIST’s overview of least squares and OpenStax’s discussion of the method of least squares.

QUESTION NO: 189

The period between the trough of the business cycle and the next peak is called the

A. cyclic phase.

B. expansionary phase.

C. contractionary phase.

D. recessionary phase.

ANSWER: B

Explanation:

The correct term is **expansionary phase.** In the standard business-cycle framework, a trough marks the lowest point of economic activity following a contraction. From that point, the economy moves into an expansion: output and real GDP generally rise, employment tends to increase, unemployment tends to decline, and business and consumer spending typically strengthen. This upward phase continues until economic activity reaches a new peak, the high point of the cycle before a subsequent slowdown or contraction may begin. Therefore, the interval measured from a trough to the next peak is specifically the expansionary phase. CFA Level I economics uses this cyclical terminology to distinguish the direction of aggregate economic activity and to support analysis of indicators such as GDP growth, labor-market conditions, industrial production, and consumer demand. The National Bureau of Economic Research describes expansions as periods between a business-cycle trough and the following peak. See the NBER Business Cycle Dating overview and the Federal Reserve Bank of St. Louis’s business-cycle expansion and recession discussion.

QUESTION NO: 190

Three defective electric toothbrushes were accidentally shipped to a drugstore by the manufacturer along with 17 nondefective ones. What is the probability that the first two electric toothbrushes sold will be returned to the drugstore because they are defective?

A. 1/4 or 0.25

B. 3/20 or 0.15

C. None of these answers

D. 3/17 or 0.176

E. 3/190 or 0.01579

ANSWER: E

Explanation:

The correct answer is **3/190 or 0.01579**. There are 20 toothbrushes in total: 3 defective and 17 nondefective. For the first toothbrush sold to be defective, the probability is 3/20. Given that the first toothbrush was defective and is no longer available, 19 toothbrushes remain, of which 2 are defective. Therefore, the conditional probability that the second toothbrush is also defective is 2/19.

Because both events must occur—the first toothbrush is defective and the second toothbrush is defective—the probabilities are multiplied: (3/20) × (2/19) = 6/380 = 3/190. Expressed as a decimal, this is approximately 0.01579, or 1.579%. This is a sampling-without-replacement situation, so the number of defective toothbrushes and the total inventory both decrease after the first defective toothbrush is sold. This follows the multiplication rule for dependent events, under which the joint probability equals the probability of the first event times the conditional probability of the second event. See OpenStax: Independent and Mutually Exclusive Events and NIST: Sampling Without Replacement.

QUESTION NO: 191

Which of the following is/are true about mutual funds?

I. Mutual funds have significant market timing abilities.

II. Mutual funds show a clear persistence of performance.

III. Mutual funds can be used as instant diversification vehicles.

A. II only

B. III only

C. I only

D. II & III

E. III only

F. II only

G. I, II & III

H. Mutual funds have significant market timing abilities.
II. Mutual funds show a clear persistence of performance.
III. Mutual funds can be used as instant diversification vehicles.

ANSWER: B

Explanation:

“III only” is correct because a mutual fund pools investors’ money to purchase a portfolio of securities, allowing an investor to obtain exposure to numerous holdings through a single fund purchase. This makes mutual funds practical instant-diversification vehicles, especially compared with buying individual securities one at a time. Diversification can reduce exposure to company-specific, or unsystematic, risk when the fund holds a sufficiently broad range of investments. The degree of diversification naturally depends on the fund’s mandate and portfolio concentration; for example, a narrowly focused sector fund may be less diversified than a broad equity or bond fund. Nevertheless, the pooled-portfolio structure is a core feature of mutual funds and is the basis for the statement’s validity. The U.S. Securities and Exchange Commission notes that mutual funds offer investors a way to own a diversified portfolio and describes how each shareholder participates proportionally in the fund’s holdings. See the SEC’s mutual funds overview and its explanation of diversification.

QUESTION NO: 192

Which of the following is NOT a measure of a firm's liquidity?

A. interest coverage

B. inventory turnover

C. quick ratio

D. receivables turnover

ANSWER: A

Explanation:

interest coverage is the correct choice because it is a coverage, or solvency, measure rather than a direct liquidity measure. The interest coverage ratio is commonly calculated as earnings before interest and taxes divided by interest expense. It indicates the extent to which recurring operating earnings can cover the firm’s required interest payments. Therefore, it focuses on the company’s debt-servicing capacity and the financial risk associated with its use of debt.

Liquidity concerns the ability to satisfy obligations falling due in the near term, generally by considering the availability of cash and assets expected to be converted to cash in the operating cycle. Interest coverage instead evaluates the earnings cushion available for a financing obligation. A higher value indicates that the company has a greater capacity to meet interest payments from operating profit, while a lower value signals increased financial risk and potential difficulty servicing debt. This distinction is important in CFA financial statement analysis: coverage ratios help analysts assess long-term solvency and capital-structure risk, not simply the amount of near-term liquid resources. See CFA Institute’s overview of the analysis of financial statements and the definition of the interest coverage ratio.

QUESTION NO: 193

_____ investing is investing with a view toward the social or political statements made by such an investment.

A. None of these answers

B. Charitable

C. Political

D. Social

ANSWER: D

Explanation:

“Social” is the correct completion. In the CFA Institute Standards of Practice Handbook’s discussion of fiduciary duty, social investing is defined as investing undertaken with attention to the social or political statements expressed by an investment. This description focuses on the investor’s desire to advance, reflect, or avoid particular societal or political considerations through portfolio choices, rather than evaluating an investment solely through conventional financial criteria.

For members and candidates who act as fiduciaries, the key professional obligation remains to place client interests first and to make investment decisions using appropriate risk-and-return, diversification, and cost considerations. Social-investing preferences may be incorporated when they are consistent with the client's objectives, constraints, and applicable governing documents. The terminology in the question directly matches the CFA curriculum's use of "social investing," so "Social" is the precise answer. See the CFA Institute's Code of Ethics and Standards of Professional Conduct and its Standards of Practice Handbook for the fiduciary-duty framework.

QUESTION NO: 194

XYZ (a firm the produces consumer goods) is a stable company reporting the following financial information:

Earnings per share $1.50

Dividends per share $0.30

Net Income $5 million Equity $50 million

Given the above information, calculate the company's expected dividend growth rate.

A. 80%

B. 20%

C. 1.6%

D. 33%

E. 8%

F. 16%

ANSWER: E

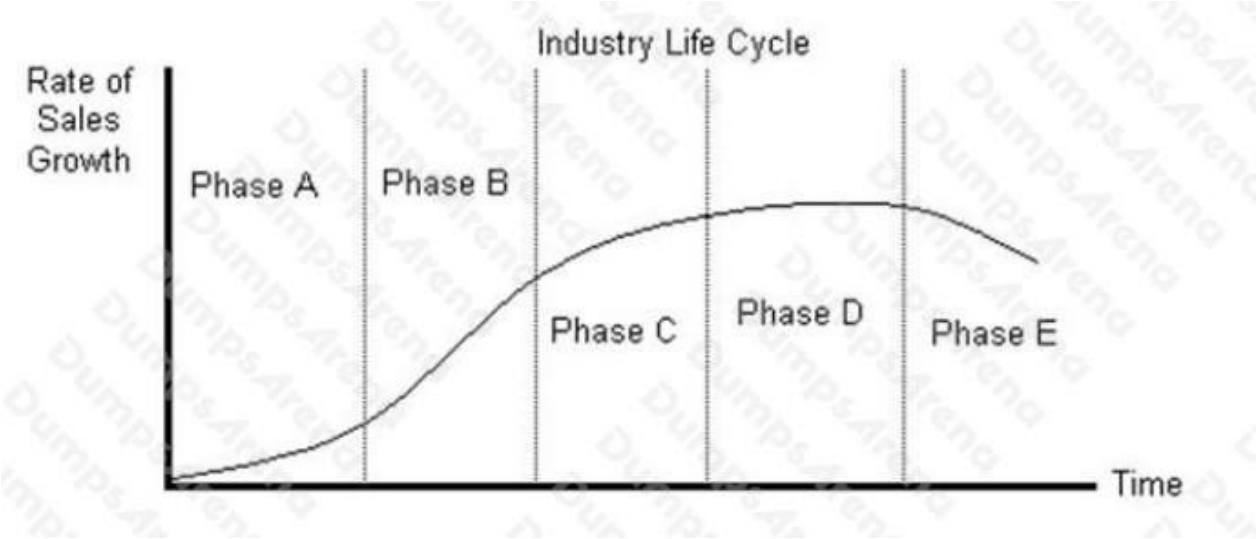
Explanation:

The expected dividend growth rate is **8%**, using the sustainable-growth relation: growth = retention ratio × return on equity. First, the dividend payout ratio is dividends per share divided by earnings per share: $0.30 ÷ $1.50 = 0.20, or 20%. Therefore, the retention ratio—the proportion of earnings reinvested in the business—is 1 − 0.20 = 0.80, or 80%. Return on equity is net income divided by shareholders' equity: $5 million ÷ $50 million = 0.10, or 10%. Multiplying the proportion retained by the return earned on equity gives the expected sustainable dividend growth rate: 0.80 × 0.10 = 0.08, or 8%.

This approach assumes the firm can continue earning the stated return on equity on reinvested earnings and maintains its current dividend payout policy. It is the standard internally generated growth framework used in equity valuation, linking a company's reinvestment policy and profitability to its long-run dividend capacity. CFA Institute discusses dividend discount models and the role of growth assumptions in equity valuation in its Equity Valuation Concepts and Basic Tools refresher. For the underlying sustainable-growth relationship, see the Sustainable Growth Rate overview.

QUESTION NO: 195

Following is a graph of the Industry Life Cycle with the names of the phases omitted.



Using the graph above, which of the following choices is INCORRECT?

A. The return on equity (ROE) on new projects is likely greater than ke for firms in Phase B.

B. The infinite period dividend discount model (DDM) works well for valuing firms in Phases C and D.

C. In general, profit margins are lower in Phase A than in Phase B.

D. For most companies, Phase C lasts the longest.

ANSWER: D

Explanation:

"For most companies, Phase C lasts the longest." is the incorrect statement because Phase C represents mature growth, a transitional period in which growth begins to decelerate toward a sustainable long-run rate. Although this phase can persist for a meaningful period, it is not generally the longest part of a company's life cycle. Phase D, stabilization and market maturity, normally lasts longest because an established company may operate at relatively stable market share, margins, reinvestment needs, and growth for many years. In this steady state, growth is typically tied to broad economic growth rather than the unusually high growth available earlier in the firm's development. This long-run stability is also the setting in which a constant-growth, infinite-horizon dividend discount model is most naturally applied: dividends and earnings are expected to grow at a sustainable rate indefinitely, and the growth rate must remain below the investor's required return. The phase progression is consistent with the valuation principle that exceptionally high growth and excess-return opportunities fade as competition and market saturation increase. See Aswath Damodaran's discussion of stable-growth valuation and CFA Institute's overview of equity valuation concepts and basic tools.

QUESTION NO: 196

New Gestalt, Inc., a software firm had a net income of 1.7 million last year. It has 200,000 common shares and 300,000 convertible bonds with face value of 100 outstanding. The convertible bonds carry a coupon of 4% and can be converted one-for-one. The average stock price last year was 39 and the maximum price was 57. The effective interest rate on the convertible debt is 8%. New Gestalt issued 100,000 preferred shares with face value 100 and a coupon of 5% on March 31st of last year. Assume the convertible bonds are dilutive and that New Gestalt faces a 30% tax rate. Given the above, the number of shares used in Diluted EPS equals _____.

A. 575,000

B. 500,000

C. 600,000

D. 200,000

ANSWER: B

Explanation:

500,000 is the number of shares used in the diluted EPS denominator. Diluted EPS applies the if-converted method to dilutive convertible debt. Under this method, the calculation assumes conversion occurred at the beginning of the reporting period, so the 300,000 convertible bonds that convert one-for-one add 300,000 common shares to the denominator. Adding those assumed conversion shares to the 200,000 common shares already outstanding produces 500,000 shares.

The bond coupon, effective interest rate, and applicable tax rate are relevant to the diluted EPS numerator because interest expense, net of tax, is added back under the if-converted method. They do not alter the number of incremental shares created by a one-for-one conversion feature. Similarly, the preferred-share issuance affects earnings available to common shareholders through preferred dividends, but preferred shares are not common shares included in the diluted EPS share denominator. The stated assumption that the convertible bonds are dilutive confirms that their assumed conversion must be included. This treatment is consistent with the diluted-EPS requirement to reflect the potential common shares issuable upon conversion of dilutive convertible instruments. See IAS 33, Earnings per Share and the PwC guidance on dilutive convertible securities.

QUESTION NO: 197

If the earnings per share on the S&P 500 index increases by 16% and the earnings multiplier decreases by 9%, the index will experience a change of:

A. +16%

B. -9%

C. +26.44%

D. +5.56%

ANSWER: D

Explanation:

The correct answer is **+5.56%**. An equity index's value can be expressed as the product of its earnings per share and its earnings multiplier, commonly interpreted as the price-to-earnings ratio: Index value = EPS × earnings multiplier. Because both inputs change, their effects must be compounded rather than simply added or subtracted. Start with an index value normalized to 1. An EPS increase of 16% changes the EPS component to 1.16. A 9% decline in the multiplier changes that component to 0.91. The new relative index value is therefore 1.16 × 0.91 = 1.0556. Relative to the starting value of 1.00, this represents an increase of 0.0556, or 5.56%.

This relationship is consistent with the standard decomposition of equity prices into a fundamental earnings component and a valuation-multiple component. It illustrates that a gain in earnings can more than offset a contraction in the valuation multiple, while the exact overall return reflects the multiplicative interaction of the two percentage changes. See CFA Institute's discussion of equity valuation concepts in its CFA Program Curriculum and the S&P Dow Jones Indices U.S. Indices Methodology.

QUESTION NO: 198

Which of the following factors directly influence capital structure decisions?

I. Business risk

II. Availability of various sources of capital under attractive terms

III. Expropriation risk

IV. The firm's tax position

V. Management's subjective attitudes toward riskVI. Country risk

A. II, III, IV, V

B. I, II, III, IV, V, VI

C. I, III, IV

D. I, II, IV, V

E. I, II, II, IV, VI

F. Business risk
II. Availability of various sources of capital under attractive terms
III. Expropriation risk
IV. The firm's tax position

G. Management's subjective attitudes toward riskVI. Country risk

ANSWER: D

Explanation:

“I, II, IV, V” is correct because capital-structure policy is commonly determined by the firm’s operating or business risk, financial flexibility, tax position, and management’s risk preferences. Business risk affects the stability of operating income and cash flows available to service fixed financing obligations. A firm with greater operating uncertainty will generally need to be more cautious in selecting the amount and type of debt it can support. The availability of capital on attractive terms represents financial flexibility: management values the ability to access debt, equity, or other funding efficiently when investments, refinancing needs, or adverse conditions arise.

The firm’s tax position matters because interest expense may provide a tax shield when taxable income is available, affecting the relative after-tax cost of debt. Management’s subjective attitude toward risk also directly affects financing choices, including tolerance for leverage, refinancing exposure, and potential financial distress. Together, these considerations require management to balance the potential benefits of debt financing against its costs and risks while preserving the capacity to fund the firm’s strategy. This treatment is consistent with the capital-structure discussion in CFA Institute’s Corporate Issuers topic area and with the overview of financing policy in CFA Institute Corporate Issuers and the CFA Program curriculum.

QUESTION NO: 199

Standard III includes which of the following?

A. None of these answers

B. Use of Professional Designation

C. Disclosure of Conflicts to Employer

D. Fair Dealing

E. Prohibition against Plagiarism

F. All of these answers

ANSWER: D

Explanation:

Fair Dealing is included in Standard III, Duties to Clients, under the CFA Institute Standards of Professional Conduct. This standard requires members and candidates to deal fairly and objectively with all clients when providing investment analysis, making investment recommendations, taking investment action, or engaging in other professional activities. Fair dealing does not require every client to receive identical treatment; rather, it requires that differences in service or access be based on legitimate considerations and that no client group is systematically disadvantaged. In practice, firms should establish and follow procedures for disseminating research and investment recommendations, allocating trades, and handling oversubscribed offerings so that clients have a fair opportunity to act on investment information. This obligation supports market confidence by ensuring that personal relationships, account size, or client influence do not result in preferential

access to actionable recommendations. The CFA Institute presents Fair Dealing as part of Standard III in its current ethical framework; see the CFA Institute Code and Standards and its Ethics and Standards resources.

QUESTION NO: 200

Stock ABC has the following characteristics:

Current dividend $1.00

Expected dividend in 1 year $1.10

Long term growth rate of dividends 10%

Required rate of return 12%

Using the infinite period Dividend Discount Model, what is the maximum price that you would pay for stock ABC?

A. $10.00

B. $120.00

C. $55.00

D. $550.00

E. $15.00

F. $12.00

ANSWER: C

Explanation:

The correct maximum price is **$55.00**. Under the infinite-period Dividend Discount Model, also called the Gordon growth model, the intrinsic value of a stock equals the dividend expected at the end of the next period divided by the difference between the required return and the constant dividend-growth rate: $V_0 = D_1 \div (r - g)$. The relevant dividend is the expected dividend in one year, $1.10, rather than the current dividend of $1.00. Substituting the stated inputs gives $V_0 = \$1.10 \div (0.12 - 0.10) = \$1.10 \div 0.02 = \$55.00$. This represents the present value of the indefinitely growing future dividend stream, assuming dividends grow at 10% forever and investors require a 12% return. The model is applicable here because the required return exceeds the growth rate, producing a finite value. CFA Institute's Equity Investments curriculum identifies the Gordon growth model as a constant-growth dividend-discount approach using next period's dividend and the spread between required return and growth. See CFA Institute: Equity Valuation Concepts and Basic Tools and NYU Stern: Dividend Discount Models.

QUESTION NO: 201

The _____ gives an estimate for the spread between the required rate of return and the expected growth of dividends.

A. none of these answers

B. dividend yield

C. P/E ratio

D. yield-to-maturity

ANSWER: B

Explanation:

The correct answer is **dividend yield**. Under the constant-growth dividend discount model (the Gordon growth model), a stock's intrinsic value is expressed as $P_0 = D_1 / (r - g)$, where D_1 is the next expected dividend, r is the required rate of return, and g is the expected constant dividend-growth rate. Rearranging this relationship gives $D_1 / P_0 = r - g$. The left-hand side is the forward dividend yield. Therefore, the dividend yield provides an estimate of the spread between the investor's required return and the anticipated long-run growth rate of dividends.

This relationship is particularly useful in equity valuation because it connects an observable or estimable market measure—the expected dividend divided by current share price—to two fundamental return drivers. If the required return rises while expected growth is unchanged, the implied dividend yield and the spread increase. Conversely, stronger expected dividend growth, holding the required return constant, reduces that spread. This is a direct implication of the Gordon growth framework used in dividend-based equity valuation. See the CFA Institute equity valuation refresher reading and Investopedia's Gordon Growth Model overview.

QUESTION NO: 202

According to FASB, initial franchise fees should be recognized as income when

A. the franchisee shows the ability to pay the fee.

B. the franchisor has substantially performed or satisfied all material services and conditions.

C. the franchisor has collected the majority of fee in cash.

D. the franchisor bills the franchisee.

ANSWER: B

Explanation:

The correct answer is "the franchisor has substantially performed or satisfied all material services and conditions." Initial franchise fees are not revenue merely because the contract has been signed, an invoice has been issued, or cash has become collectible. The fee commonly relates to the franchisor's promised activities in establishing the franchise relationship, such as providing initial services, access, rights, training, or other required items. Recognition therefore follows completion of the franchisor's substantive promised performance rather than a billing or collection event.

The wording in this question reflects the traditional FASB franchise-fee recognition principle: revenue is recognized when the franchisor has substantially performed the material services and conditions associated with the initial fee. In current U.S. GAAP, this conclusion is consistent with the broader revenue model in ASC 606, under which an entity recognizes revenue when, or as, it satisfies a performance obligation by transferring the promised good or service to the customer. Thus, where the initial fee is consideration for material setup or initial services, income is recognized once those material obligations have been substantially fulfilled. FASB's revenue-recognition standard is available at FASB Accounting Standards Updates, and the core ASC 606 revenue principle is summarized by PwC's ASC 606 guide.

QUESTION NO: 203

The U.S. Federal Aviation Administration reported that passenger revenues on international flights increased from $528 million in 1972 to $5,100 million in 1995. What is the geometric mean annual percent increase in international passenger revenues?

A. None of these answers

B. 27.9

C. 9.96

D. 103.6

E. 10.4

ANSWER: E

Explanation:

The correct answer is **10.4**, representing an annual geometric mean increase of approximately 10.4%. Geometric mean annual growth, also called the compound annual growth rate, measures the constant annual rate that would compound from the beginning value to the ending value over the stated interval. The revenue growth factor is $5,100 million divided by $528 million, or approximately 9.6591. From 1972 to 1995 there are 23 annual compounding periods. Therefore, the annual growth rate is calculated as $(5{,}100 / 528)^{1/23} - 1$. This produces approximately 0.1037, or 10.37%, which rounds to 10.4%. This approach appropriately incorporates compounding: it does not merely spread the total percentage increase evenly across years. In CFA quantitative methods, geometric mean returns are used when evaluating growth over multiple periods because each period's growth builds on the accumulated value from prior periods. For further background on annualized and compound returns, see CFA Institute's Quantitative Methods refresher readings and Investor.gov's explanation of compound interest.

QUESTION NO: 204

The first card selected from a standard 52 card deck was a king. If it is returned to the deck, what is the probability that a king will be drawn on the second selection?

A. 1/4 or 0.25

B. 1/13, or 0.077

C. None of these answers

D. 1/3 or 0.33

E. 12/13, or 0.923

ANSWER: B

Explanation:

The correct answer is **1/13, or 0.077**. A standard deck contains 52 cards, of which 4 are kings. Because the first king is returned to the deck before the second selection, the deck is restored to its original composition: 52 total cards and 4 kings. Therefore, the probability of drawing a king on the second selection is 4/52, which simplifies to 1/13, or approximately 0.0769 (0.077 when rounded). Replacement is the key condition: it makes the second draw independent of the first draw, meaning that knowledge of the first result does not alter the probability distribution for the next selection. This is consistent with the multiplication rule for independent events: when an item is replaced after selection, each draw is made from the same full population with the same probabilities. In CFA quantitative-methods terms, the conditional probability of a king on the second draw, given that a king was drawn and replaced first, equals the unconditional probability of drawing a king on any single draw. See the CFA Institute's overview of probability concepts at CFA Institute: Probability Concepts and the probability reference from NIST.

QUESTION NO: 205

Which of the following statements is most correct?

A. All else being equal, an increase in a firm's fixed costs will decrease its degree of operating leverage.

B. All of these statements are correct.

C. Firms that have large fixed costs and low variable costs have a higher degree of financial leverage than do firms with low fixed costs and high variable costs.

D. If a firm's net income rises 10 percent every time its EBIT rises 10 percent, this implies the firm has no debt outstanding.

E. None of these statements are correct.

ANSWER: D

Explanation:

If a firm's net income rises 10 percent every time its EBIT rises 10 percent, this implies the firm has no debt outstanding. This relationship indicates that the percentage change in net income is identical to the percentage change in EBIT, so the degree of financial leverage is 1. Financial leverage arises from fixed financing charges, principally interest expense on debt. Interest is deducted after EBIT in arriving at income before taxes and net income; therefore, when interest expense exists, a given percentage change in EBIT generally produces a greater percentage change in net income. In contrast, with no interest-bearing debt and thus no interest charges, net income changes proportionally with EBIT, assuming a constant tax rate. Algebraically, net income in that setting equals EBIT multiplied by one minus the tax rate, so a 10 percent increase in EBIT produces a 10 percent increase in net income. This is the core distinction between operating leverage, which is driven by operating fixed costs and affects EBIT, and financial leverage, which is driven by fixed financing costs and affects net income. See the CFA Institute's overview of corporate issuers and capital structure at CFA Institute Corporate Issuers refresher readings and the financial-leverage definition from Investopedia.

QUESTION NO: 206

When the weighted average method is used, ending inventory units are priced at the

A. none of these answers is correct

B. earliest price

C. average price

D. lower of cost or market

ANSWER: C

Explanation:

Under the weighted-average cost method, ending inventory units are assigned the average cost per unit of all inventory available for sale during the period. This unit cost is calculated by dividing the total cost of beginning inventory plus purchases by the total number of units available for sale. The resulting weighted-average unit cost is then applied consistently to both the units remaining in ending inventory and the units recognized as cost of goods sold. Thus, "average price" correctly describes the basis used to price ending inventory under this cost-flow assumption. The method smooths the effects of changes in purchase prices because it combines the costs and quantities of inventory acquired at different times into one average unit amount. Under IFRS, the weighted-average cost formula is an acceptable method for assigning costs to ordinarily interchangeable inventories. See IAS 2, Inventories, paragraph 25, at IFRS—IAS 2 Inventories. For a practical description of calculating inventory cost using the weighted-average method, see the OpenStax weighted-average inventory method overview.

QUESTION NO: 207

A researcher has a sample of 400 observations from a population whose standard deviation is known to be 136. The mean of the sample is calculated to be 17.2. The null hypothesis is stated as Ho: mean = 4. The p-value under the alternative hypothesis H1: mean > 4 equals _____.

A. 3.92%

B. 5.2%

C. 1.96%

D. 2.6%

ANSWER: D

Explanation:

The correct answer is **2.6%**. Because the population standard deviation is known, the appropriate test statistic for the sample mean is a z-statistic. Under the null hypothesis, the hypothesized population mean is 4, and the standard error of the sample mean is population standard deviation divided by the square root of the sample size: 136 / √400 = 136 / 20 = 6.8. The z-statistic is therefore (17.2 − 4) / 6.8 = 1.94, approximately. The alternative hypothesis specifies that the mean is greater than 4, so this is a right-tailed test. Its p-value is the probability, assuming the null hypothesis is true, of obtaining a z-statistic at least as large as 1.94. From the standard normal distribution, the cumulative probability below 1.94 is about 0.9738. Thus, the upper-tail probability is 1 − 0.9738 = 0.0262, or approximately 2.6%. This p-value quantifies the extremity of the observed sample mean in the direction specified by the alternative hypothesis. See NIST's discussion of hypothesis testing and its standard normal distribution tables.

QUESTION NO: 208

Assume the following information about a stock market series:

Retention rate at t1 = 63%

Expected growth rate of dividends at t1 = 10%

Expected growth rate of earnings at t1 = 12%

Required rate of return = 13% EPS at t1 = $3.65

Given this information, what is the appropriate earnings multiplier for this stock market series? Further, what is the value of this series?

A. 63; $229.95

B. 21; $76.65

C. 12.33; $45

D. 37; $135.05

E. None of these answers is correct.

F. The answer cannot be determined from the information provided.

ANSWER: C

Explanation:

12.33; $45 is correct under the constant-growth dividend discount model. The earnings multiplier is the justified forward price-to-earnings ratio, calculated as the dividend payout ratio divided by the difference between the required return and the expected dividend growth rate: payout ratio / (required return − dividend growth). The retention rate is 63%, so the dividend payout ratio is 37%, calculated as 1 − 0.63. Using the supplied figures, the justified earnings multiplier is 0.37 / (0.13 − 0.10) = 12.3333, or approximately 12.33.

The expected dividend growth rate is the relevant growth input because the model values the stream of dividends paid to shareholders. Applying this multiplier to earnings per share at t1 gives the estimated series value: 12.3333 × $3.65 = $45.0167, which rounds to $45. The calculation is consistent with the Gordon growth model, in which value equals next-period dividend divided by the required return less the constant dividend growth rate. For background on the model and its assumptions, see CFA Institute: Equity Valuation Concepts and Basic Tools and NYU Stern: Valuation Tools.

QUESTION NO: 209

The semiannually compounded rate is 6% quoted on an annualized basis. The equivalent quarterly compounded rate is:

A. 6.12%

B. 5.91%

C. 5.96%

D. 5.76%

ANSWER: C

Explanation:

The correct answer is **5.96%**. An annualized rate quoted with semiannual compounding is a nominal annual rate, so its periodic rate is 6% divided by two, or 3% per half-year. Therefore, one monetary unit invested for one year grows to $(1 + 0.06/2)^2 = 1.0609$. An equivalent annualized rate with quarterly compounding must produce exactly that same one-year future value. If r is the nominal annual rate with quarterly compounding, its quarterly periodic rate is r/4, so the equivalence equation is $(1 + r/4)^4 = 1.0609$. Solving produces $r = 4[(1.0609)^{1/4} - 1] = 0.05956$, or approximately 5.96% when expressed as an annualized nominal rate. This follows the time value of money principle that rates using different compounding frequencies can be compared only after converting them to the same effective growth over the relevant horizon. CFA Institute's curriculum topic framework includes time value of money within Quantitative Methods; see CFA Program Curriculum. For a reference on converting nominal rates across compounding frequencies, see Corporate Finance Institute: Nominal Interest Rate.