# Equity (Solution)

1/ Solution

A. Correct because a reverse stock split involves a reduction in the number of shares outstanding with a corresponding increase in share price.

B. Incorrect because this describes a stock split, not a reverse stock split. A stock split involves an increase in the number of shares outstanding with a consequent decrease in share price. A reverse stock split involves a reduction in the number of shares outstanding with a corresponding increase in share price.

C. Incorrect because a reverse stock split involves a reduction in the number of shares outstanding with a corresponding increase in share price.

**Equity Investments**

- describe regular cash dividends, extra dividends, stock dividends, stock splits, reverse stock splits, and share

2/ Solution

A. Incorrect because in contrast to stock dividends and stock splits, share repurchases are an alternative to cash dividend payments.

B. Incorrect because in contrast to stock dividends and stock splits, share repurchases are an alternative to cash dividend payments.

C. Correct because a share repurchase is viewed as equivalent to the payment of cash dividends of equal value in terms of the effect on shareholders' wealth, all other things being equal.

**Equity Investments**

- describe regular cash dividends, extra dividends, stock dividends, stock splits, reverse stock splits, and share repurchases

3/ Solution

A. Correct because a sponsored DR is when the foreign company whose shares are held by the depository has a direct involvement in the issuance of the receipts. Investors in sponsored DRs have the same rights as the direct owners of the common shares (e.g., the right to vote and the right to receive dividends). In contrast, with an unsponsored DR, the underlying foreign company has no involvement with the issuance of the receipts. Instead, the depository purchases the foreign company's shares in its domestic market and then issues the receipts through brokerage firms in the depository's local market. In this case, the depository bank, not the investors in the DR, retains the voting rights.

B. Incorrect because a depository receipt (DR) (sponsored or unsponsored) is a security that trades like an ordinary share on a local exchange and represents an economic interest in a foreign company.

C. Incorrect because a depository receipt (DR) (sponsored or unsponsored) is a security that trades like an ordinaryshare on a local exchange and represents an economic interest in a foreign company. The price of each DR will be affected by factors that affect the price of the underlying shares, such as company fundamentals, market conditions, analysts' recommendations, and exchange rate movements.

**Equity Investments**

- describe methods for investing in non-domestic equity securities

4/ Solution

A. Correct because a stock dividend divides the "pie" (the market value of shareholders' equity) into smaller pieces without affecting the value of the pie or any shareholder's proportional ownership in the company. Thus, stock dividends are not relevant for valuation. Stock splits and reverse stock splits are similar to stock dividends in that they have no economic effect on the company or shareholders.

B. Incorrect because a cash dividend is a cash distribution made to a company's shareholders. No cash flow from the company to the shareholders happen in case of a stock dividend. A stock dividend divides the "pie" (the market value of shareholders' equity) into smaller pieces without affecting the value of the pie or any shareholder's proportional ownership in the company. Thus, stock dividends are not relevant for valuation.

C. Incorrect because a share repurchase (or buyback) is a transaction in which a company uses cash to buy back its own shares. A share repurchase is viewed as equivalent to the payment of cash dividends of equal value in terms of the effect on shareholders' wealth, all other things being equal.

5/ Solution

A. Incorrect because an asset-based valuation of a company uses estimates of the market or fair value of the company's assets and liabilities.

B. Correct because an asset-based valuation of a company uses estimates of the market or fair value of the company's assets and liabilities.

C. Incorrect because an asset-based valuation of a company uses estimates of the market or fair value of the company's assets and liabilities.

**Equity Investments**

- describe asset-based valuation models and their use in estimating equity value

6/ Solution

A. Incorrect because according to the dividend discount model, each year's dividend D, is the expected dividend in year t, assumed to be paid at the end of the year, not at the beginning of each year.

B. Incorrect because according to the dividend discount model, each year's dividend D, is the expected dividend in year t, assumed to be paid at the end of the year, not at the midpoint of each year.

C. Correct because according to the dividend discount model, each year's dividend D, is the expected dividend in year t, assumed to be paid at the end of the year.

**Equity Investments**

- explain the rationale for using present value models to value equity and describe the dividend discount and free- cash-flow-to-equity models

7/ Solution

A. Incorrect because it confuses the dividend payout ratio with the dividend yield in the Gordon growth model equation resulting in: $D_1/Por-g=0.12-0.04 = 0.08 = 8\%$.

B. Incorrect because it confuses the dividend payout ratio as the dividend growth rate divided by the required rate of return, resulting in p = 0.04/0.120.33333%. This is also closest to the product of the forward P/E and the dividend growth rate: 8.0 x 0.04 = 0.32 = 32%.

C. Correct because according to the Gordon growth model equations

8/ Solution

A. Incorrect because illiquid assets would not have easily determinable market (fair) values and would be very difficult to analyze using asset valuation methods.

B. Correct because asset-based valuations work well for companies that do have a high proportion of current assets and current liabilities.

C. Incorrect because asset-based valuations work well for companies that do not have a high proportion of intangible or 'off the books' assets.

**Equity Investments**

- describe asset-based valuation models and their use in estimating equity value

9/ Solution

A. Incorrect because this feature is specific to fixed income indexes.

B. Correct because both equity and fixed income indexes can be constructed according to sector. Similar to equities, fixed-income securities can be categorized according to the issuer's economic sector, the issuer's geographic region, or the economic development of the issuer's geographic region.

C. Incorrect because this feature is specific to fixed income indexes.

**Equity Investments**

- describe types of fixed-income indexes

10/ Solution

A. Incorrect because arbitrageurs provide liquidity to buyers and sellers who arrive at different markets at the same time. They move liquidity across markets. Arbitrageurs provide liquidity to the markets because they make it easier for buyers and sellers to trade when and where they want to trade.

B. Incorrect because the presence of arbitrageurs helps pricing discrepancies disappear quickly.

C. Correct because arbitrageurs are traders who engage in such trades to benefit from pricing discrepancies (inefficiencies) in markets. Such trading activity contributes to market efficiency. The presence of these arbitrageurs helps pricing discrepancies disappear quickly.

Equity Investments

- explain factors that affect a market's efficiency

11/ Solution

A. Correct because an efficient market is thus a market in which asset prices reflect all past and present information.

B. Incorrect because in an efficient market, prices should be expected to react only to the elements of information releases that are not anticipated fully by investors-that is, to the "unexpected" or "surprise" element of such releases.

C. Incorrect because consistent, superior, risk-adjusted returns (net of all expenses) are not achievable in an efficient market.

**Equity Investments**

- describe market efficiency and related concepts, including their importance to investment practitioners

12/ Solution

A. Correct because an increase in transaction costs will increase the price discrepancy between market price and efficient price. Higher transaction costs make it more expensive for traders to exploit market inefficiencies, thereby decreasing market efficiency. Inefficiencies may also be unexploitable if the amount of the transaction cost offsets the amount of the price discrepancy.

A price discrepancy must be sufficiently large to leave the investor with a profit (adjusted for risk) after taking account of the transaction costs and information-acquisition costs to reach the conclusion that the discrepancy may represent a market inefficiency.

B. Incorrect because rules and regulations that promote fairness and efficiency in a market include those pertaining to the disclosure of information and illegal insider trading.

C. Incorrect because an increase in the number of market participants increases efficiency. If a large number of investors (individual and institutional) follow the major financial markets closely on a daily basis, and if mispricings exist in these markets, investors will act so that these mispricings disappear quickly.

13/ Solution

A. Incorrect because changes in the lifestyle of people happen due to societal influences. Societal changes involving how people work, spend their money, enjoy their leisure time, and conduct other aspects of their lives can have significant effects on the sales of various industries.

B. Correct because changes in distribution of age happen due to demographic influence. Changes in population size, in the distributions of age and gender, and in other demographic characteristics may have significant effects on economic growth and on the amounts and types of goods and services consumed.

C. Incorrect because changes in spending behavior of the customers happen due to societal influences. Societal changes involving how people work, spend their money, enjoy their leisure time, and conduct other aspects of their lives can have significant effects on the sales of various industries.

**Equity Investments**

- analyze an industry's structure and external influences using Porter's Five Forces and PESTLE frameworks

14/ Solution

A. Incorrect because it is difficult, compared with equity indexes, for investors to replicate fixed-income indexes and duplicate their performance.

B. Correct because compared to equity indexes, fixed-income index providers must contact dealers to obtain current prices on constituent securities to update the index or they must estimate the prices of constituent securities using the prices of traded fixed-income securities with similar characteristics.

C. Incorrect because the number of fixed-income securities is many times larger than the number of equity securities.

**Equity Investments**

- compare types of security market indexes

15/ Solution

A. Correct because at inception, the values of the price and total return versions of an index are equal. As time passes, however, the value of the total return index will exceed the value of the price return index.

B. Incorrect because at inception, the values of the price and total return versions of an index are equal. As time passes, however, the value of the total return index will exceed the value of the price return index.

C. Incorrect because at inception, the values of the price and total return versions of an index are equal. As time passes, however, the value of the total return index will exceed the value of the price return index.

**Equity Investments**

- calculate and interpret the value, price return, and total return of an index

16/ Solution

A. Correct because behavioral finance allows for the possibility that the dislike for risk is not symmetrical, in contrast to the more general models where researchers assume that investors do not like risk (risk aversion), whether the risk is that returns are higher than expected or lower than expected.

B. Incorrect because behavioral finance research supports the phenomenon that investors are loss averse. Behavioral finance allows for the possibility that the dissatisfaction resulting from a loss exceeds the satisfaction resulting from a gain of the same magnitude. Some argue that behavioral theories of loss aversion can explain observed overreaction in markets.

Incorrect because behavioral finance research supports the phenomenon that investors are overconfident.

C. Evidence has suggested that overconfidence results in mispricing for US, UK, German, French, and Japanese markets.

**Equity Investments**

- describe behavioral finance and its potential relevance to understanding market anomalies

17/ Solution

A. Incorrect because companies issue equity to both make acquisitions and ensure that debt covenants are met.

B. Incorrect because companies issue equity to both make acquisitions and ensure that debt covenants are met.

C. Correct because companies issue equity to both make acquisitions and ensure that debt covenants are met.

**Equity Investments**

- explain the role of equity securities in the financing of a company's assets

18/ Solution

A. Incorrect because proxy voting is defined as shareholders may vote by proxy, which allows a designated party-such as another shareholder, a shareholder representative, or management to vote on the shareholders' behalf.

B. Incorrect because cumulative voting allows shareholders to direct their total voting rights to specific candidates, as opposed to [statutory voting] having to allocate their voting rights evenly among all candidates.

C. Correct because cumulative voting allows shareholders to direct their total voting rights to specific candidates, as opposed to [statutory voting] having to allocate their voting rights evenly among all candidates.

**Equity Investments**

- describe differences in voting rights and other ownership characteristics among different equity classes

19/ Solution

A. Incorrect because preference shares (or preferred stock) rank above common shares with respect to the payment of dividends and the distribution of the company's net assets upon liquidation. Their [convertible preference shares'] price is less volatile than the underlying common shares because the dividend payments are known and more stable.

B. Correct because convertible preference shares allow investors to benefit from a rise in the price of the common shares through the conversion option.

C. Incorrect because the use of convertible preference shares is a popular financing option in venture capital and private equity transactions in which the issuing companies are considered to be of higher risk and when it may be years before the issuing company 'goes public' (i.e., issues common shares to the public).

**Equity Investments**

- compare the risk and return characteristics of different types of equity securities

20/ Solution

A. Incorrect because growth industries would include industries with specific demand dynamics that are so strong that they override the significance of broad economic or other external factors and generate growth regardless of overall economic conditions, although their rates of growth may slow during an economic downturn.

B. Incorrect because a cyclical industry is one whose profits are strongly correlated with the strength of the overall economy. Such companies experience wider-than-average fluctuations in demand-high demand during periods of economic expansion and low demand during periods of economic contraction-and/or are subject to greater- than-average profit variability related to high operating leverage (i.e., high fixed costs).

C. Correct because defensive industries and companies are those whose revenues and profits are least affected by fluctuations in overall economic activity. These industries/companies tend to produce staple consumer goods (e.g., bread), to provide basic services (grocery stores, drug stores, fast food outlets).

21/ Solution

A. Correct because brokered markets are markets in which brokers arrange trades among their clients. Brokers organize markets for instruments for which finding a buyer or seller willing to trade is difficult because the instruments are unique.

B. Incorrect because organizing order-driven markets for these instruments (assets for which finding a buyer or seller is difficult) is not sensible because too few traders would submit orders for them.

C. Incorrect because dealers generally are unable or unwilling to hold these assets in their inventories, they will not make markets in them.

**Equity Investments**

- describe how securities, contracts, and currencies are traded in quote-driven, order-driven, and brokered markets

22/ Solution

A. Incorrect because price multiples are popular with investors because the multiples can be calculated easily.

B. Incorrect because the major advantage of using price multiples is that they allow for relative comparisons, both cross-sectional (versus the market or another comparable) and in time series.

C. Correct because differences in reporting rules among different markets and in chosen accounting methods can result in revenues, earnings, book values, and cash flows that are not easily comparable.

**Equity Investments**

- explain advantages and disadvantages of each category of valuation model

23/ Solution

A. Incorrect because enterprise value is most frequently determined as market capitalization plus market value of preferred stock plus market value of debt minus cash and investments (cash equivalents and short-term investments). Enterprise value increases with an increase in the market value, not book value, of debt.

B. Incorrect because enterprise value is most frequently determined as market capitalization plus market value of preferred stock plus market value of debt minus cash and investments (cash equivalents and short-term investments). Enterprise value increases with a decrease, not increase, in the market value of cash and investments.

C. Correct because enterprise value is most frequently determined as market capitalization plus market value of preferred stock plus market value of debt minus cash and investments (cash equivalents and short-term investments). Therefore, enterprise value increases with an increase in the market value of preferred stock.

**Equity Investments**

- describe enterprise value multiples and their use in estimating equity value

24/ Solution

A. Incorrect because examples of classification systems based on products and/or services include the commercial classification systems... namely, the Global Industry Classification Standard (GICS).

B. Incorrect because examples of classification systems based on products and/or services include the commercial classification systems... namely, the Global Industry Classification Standard (GICS).

C. Correct because examples of classification systems based on products and/or services include the commercial classification systems... namely, the Global Industry Classification Standard (GICS).

**Equity Investments**

- describe industry classification methods and compare methods by which companies can be grouped

25/ Solution

A. Correct because commodity indexes consist of futures contracts on one or more commodities.

B. Incorrect because hedge fund indexes reflect the returns on hedge funds. Hedge funds are private investment vehicles that typically use leverage and long and short investment strategies. A number of research organizations maintain databases of hedge fund returns and summarize these returns into indexes. Although the underlying hedge funds may contain futures contracts, the indexes are not comprised of futures contracts.

C. Incorrect because a broad equity market index, as its name suggests, represents an entire given equity market and typically includes securities representing more than 90 percent of the selected market. Although the underlying securities may include contracts, the index is not comprised of futures contracts.

**Equity Investments**

- describe indexes representing alternative investments

26/ Solution

A. Incorrect because external factors affecting an industry's growth include macroeconomic, technological, demographic, governmental, and social influences. In contrast, cost structures (or cost conditions) are internal factors.

B. Incorrect because external factors affecting an industry's growth include macroeconomic, technological, demographic, governmental, and social influences. In contrast, economies of scale is an internal factor.

C. Correct because external factors affecting an industry's growth include macroeconomic, technological, demographic, governmental, and social influences.

**Equity Investments**

- analyze an industry's structure and external influences using Porter's Five Forces and PESTLE frameworks


27/ Solution

A. Correct because companies often raise money for projects by selling (issuing) ownership interests (e.g., corporate common stock or partnership interests). Although these equity instruments legally represent ownership in companies rather than loans to the companies, selling equity to raise capital is simply another mechanism for moving money from the future to the present.

B. Incorrect because issuing a stock dividend would not be an activity the company would do to fund a capital project. Stock dividends are a non-cash form of dividends and the company distributes additional shares of its common stock to shareholders instead of cash. Thus stock dividends will flow to shareholders, not the capital project.

C. Incorrect because issuing a stock dividend would not be an activity the company would do to fund a capital project. Stock dividends are a non-cash form of dividends and the company distributes additional shares of its common stock to shareholders instead of cash. Thus stock dividends will flow to shareholders, not the capital project.

28/ Solution

A. Incorrect because ex-dividend date is followed closely (one or two business days later) by the holder-of-record date (also called the owner-of-record date, shareholder-of-record date, record date, date of record, or date of book closure), the date that a shareholder listed on the company's books will be deemed to have ownership of the shares for purposes of receiving the upcoming dividend.

B. Incorrect because the final milestone [in the dividend payment chronology] is the payment date (or payable date), which is the day that the company actually mails out (or electronically transfers) a dividend payment to shareholders.

C. Correct because first is the declaration date, the day that the company issues a statement declaring a specific dividend. Next comes the ex-dividend date (or ex- date), the first date that a share trades without (i.e., "ex") the dividend.

**Equity Investments**

- describe dividend payment chronology

29/ Solution

A. Correct because Company 1's P/S and P/B are both the highest compared to those of its two peers and the industry average. All else being equal, high P/S and P/B multiples point to relatively expensive valuations. Therefore, in the absence of conflict between the indications given by P/S and P/B (as both measures are the highest for the same company), the company most likely to be overvalued is Company 1.

B. Incorrect because the P/S and P/B of Company 2 are lower than those of both Company 1 and the industry average.

C. Incorrect because the P/S and P/B of Company 3 are lower than those of both Company 1 and the industry average

30/ Solution

A. Incorrect because utilities are classified as non-cyclical. Examples of non-cyclical industries are food and beverage, household and personal care products, health care, and utilities.

B. Correct because examples of cyclical industries and broader sectors are autos, housing, basic materials, industrials, and technology.

C. Incorrect because health care is classified as non-cyclical. Examples of non-cyclical industries are food and beverage, household and personal care products, health care, and utilities.

**Equity Investments**

- describe industry classification methods and compare methods by which companies can be grouped

31/ Solution

A. Incorrect because in price weighting, the weight on each constituent security is determined by dividing its price by the sum of all the prices of the constituent securities, which means the lower free float (due to increased weight of controlling shareholders) has no impact on constituent weights.

B. Incorrect because the equal weighting assigns an equal weight to each constituent security at inception, which means the lower free float (due to increased number of shares held by controlling shareholders) has no impact on constituent weights.

C. Correct because float-adjusted market-capitalization-weighted indexes reflect the shares available for public trading [excluding the ones held by controlling shareholders] by multiplying

the market price per share by the number of shares available to the investing public (i.e., the float-adjusted market capitalization), which means constituent weights are impacted.

**Equity Investments**

- compare the different weighting methods used in index construction

32/ Solution

A. Incorrect because free-cash-flow-to-equity (FCFE) can be expressed as FCFE = CFO-FCInv + Net borrowing [not minus net borrowing] where CFO is cash flow from operations and FCInv is fixed capital investment.

B. Correct because free-cash-flow-to-equity (FCFE) can be expressed as FCFE = CFO-FCInv + Net borrowing where CFO is cash flow from operations and FCInv is fixed capital investment.

C. Incorrect because free-cash-flow-to-equity (FCFE) can be expressed as FCFE = CFOFCInv [not +FCInv] + Net borrowing [not minus net borrowing] where CFO is cash flow from operations and FCInv is fixed capital investment.

**Equity Investments**

- explain the rationale for using present value models to value equity and describe the dividend discount and free- cash-flow-to-equity models

33/ Solution

A. Incorrect because the main disadvantage of price weighting is that it results in arbitrary weights for each security. It does not have a contrarian effect.

B. Correct because fundamentally weighted indexes generally will have a contrarian 'effect' in that the portfolio weights will shift away from securities that have increased in relative value and toward securities that have fallen in relative value whenever the portfolio is rebalanced.

C. Incorrect because a market capitalization weighting method leads to overweighting stocks that have risen in price (and may be overvalued) and underweighting stocks that have declined in price (and may be undervalued). The effect of this weighting method is similar to a momentum investment strategy in that over time, the securities that have risen in price the most will have the largest weights in the index.

34/ Solution

A. Correct because EV is often viewed as the cost of a takeover and EBITDA is a proxy for operating cash flow. Companies with relatively low EV/EBITDA multiples are likely to be undervalued. Company 1 has the lowest EV/EBITDA multiple among the three.

Company 1: EV/EBITDA = 100,000,000 / 8,000,000 = 12.5;

Company 2: EV/EBITDA = 150,000,000/10,000,000 = 15.0;

Company 3: EV/EBITDA = 200,000,000 / 15,000,000 = 13.3.

35/ Solution

A. Incorrect because as unregulated entities hedge funds are not required to report their performance. This means a hedge fund index is unlikely to be composed of regulated entities.

B. Incorrect because a consequence of the voluntary performance reporting is the potential for survivorship bias.

C. Correct because frequently, a hedge fund reports its performance to only one database. The result is little overlap of funds covered by the different indices. With little overlap between their

constituents, different global hedge funds indices may reflect very different performance for the hedge fund industry over the same period of time.

**Equity Investments**

- describe indexes representing alternative investments

36/ Solution

A. Incorrect because in the weak-form efficient market hypothesis, security prices fully reflect all past market data. It does not include all publicly known and available information.

B. Correct because in a semi-strong-form efficient market, prices reflect all publicly known and available information.

C. Incorrect because in a strong-form efficient market, security prices fully reflect both public and private information.

**Equity Investments**

- contrast weak-form, semi-strong-form, and strong-form market efficiency

37/ Solution

A. Incorrect because in a highly efficient market, a passive investment strategy is preferred to an active investment strategy because of lower costs (for example, transaction and information-seeking costs).

B. Correct because in a highly efficient market, a passive investment strategy (i.e., buying and holding a broad market portfolio) that does not seek superior risk-adjusted returns is preferred to an active investment strategy because of lower costs (for example, transaction and information-seeking costs).

C. Incorrect because since there are no inefficiencies to exploit in a highly efficient market, an active investment strategy would most likely generate the same risk-adjusted returns as a

passive investment strategy if expenses are not considered. Consistent, superior, risk- adjusted returns (net [not before] of all expenses) are not achievable in an efficient market. In a highly efficient market, a passive investment strategy (i.e., buying and holding a broad market portfolio) that does not seek superior risk-adjusted returns is preferred to an active investment strategy.

**Equity Investments**

- describe market efficiency and related concepts, including their importance to investment practitioners

38/ Solution

A. Incorrect because fundamental analysis involves the estimation of an asset's value using company data, such as earnings and sales forecasts and not stock price patterns. Instead, technical analysis is the use of price patterns in attempt to profit from them.

B. Incorrect because fundamental analysis is an attempt to make active portfolio management decisions, not passive management. Passive management focuses on replicating indexes as investment vehicles.

C. <span style="color:red">Correct</span> because fundamental analysis is necessary in a well-functioning market because this analysis helps the market participants understand the value implications of information.

**Equity Investments**

- explain the implications of each form of market efficiency for fundamental analysis, technical analysis, and the choice between active and passive portfolio management

39/ Solution

A. Correct because external factors affecting an industry's growth include macroeconomic, technological, demographic, governmental, and social influences.

B. Incorrect because barriers to entry are considered internal factors affecting an industry, while external factors affecting an industry's growth include macroeconomic, technological, demographic, governmental, and social influences.

C. Incorrect because industry concentration is considered an internal factor affecting an industry, while external factors affecting an industry's growth include macroeconomic, technological, demographic, governmental, and social influences.

**Equity Investments**

- analyze an industry's structure and external influences using Porter's Five Forces and PESTLE frameworks

40/ Solution

A. Incorrect because in the weak-form efficient market hypothesis, security prices fully reflect all past market data, which refers to all historical price and trading volume information. This answer is incomplete as it does not include trading volume information.

B. Correct because in the weak-form efficient market hypothesis, security prices fully reflect all past market data, which refers to all historical price and trading volume information.

C. Incorrect because in the weak-form efficient market hypothesis, security prices fully reflect all past market data, which refers to all historical price and trading volume information but does not refer to current earnings information.

**Equity Investments**

- contrast weak-form, semi-strong-form, and strong-form market efficiency

41/ Solution

A. Incorrect because security market indices do not serve as proxies for measuring nonsystematic risk. Nonsystematic risk is risk that is local or limited to a particular asset or industry that need not affect assets outside of that asset class. Investors are capable of avoiding nonsystematic risk through diversification by forming a portfolio of assets that are not highly correlated with one another. Security market indices are usually broad and well diversified. They do serve as market proxies when measuring risk-adjusted performance. The beta of an actively managed portfolio allows investors to form a passive alternative with the same level of systematic risk.

B. Correct because indices play a critical role as proxies for asset classes in asset allocation models.

C. Incorrect because asset-based valuation is a method for valuing individual companies, so a broad security market indices is not a useful proxy. Asset-based valuation of a company uses estimates of the market or fair value of the company's assets and liabilities. Asset-based valuation models are frequently used together with multiplier models to value private companies. As public companies increase reporting or disclosure of fair values, asset- based valuation may be increasingly used to supplement present value and multiplier models of valuation.

**Equity Investments**

- describe uses of security market indexes

42/ Solution

A. Incorrect because in price weighting, the weight on each constituent security is determined by dividing its price by the sum of all the prices of the constituent securities and not by market cap, which is price multiplied by shares outstanding.

B. Incorrect because this method assigns an equal weight to each constituent security at inception and therefore the weight is not determined by market cap, which is price multiplied by shares outstanding.

C. Correct because in market-capitalization weighting, or value weighting, the weight on each constituent security is determined by dividing its market capitalization by the total market capitalization (the sum of the market capitalization) of all the securities in the index. Market capitalization or value is calculated by multiplying the number of shares outstanding by the market price per share.

**Equity Investments**

- compare the different weighting methods used in index construction

43/ Solution

A. Correct because from an investor's point of view, putable common or preference shares are less risky than their callable or non-callable counterparts because they give the investor the option to sell the shares to the issuer at a pre-determined price. As a result, putable shares generally pay a lower dividend than non-putable shares.

B. Incorrect because callable common or preference shares are riskier than their non-callable counterparts because the issuer has the option to redeem the shares at a pre-determined price. Callable shares generally pay a higher dividend to compensate investors for the risk that the shares could be called in the future.

C. Incorrect because from an investor's point of view, putable common or preference shares are less risky than their callable or non-callable counterparts because they give the investor the option to sell the shares to the issuer at a pre-determined price. The lower risk of putables shares results in a lower dividend than non-callable shares.

44/ Solution

A. Incorrect because corporations can issue new stock via a rights offering. In a rights offering, the corporation distributes rights to buy stock at a fixed price to existing shareholders in proportion to their holdings.

B. Incorrect because in a best effort offering, the investment bank acts only as broker. They do not guarantee the sale of the entire issue at a negotiated offering price.

C. Correct because in an underwritten offering the most common type of offering the investment bank guarantees the sale of the issue at an offering price that it negotiates with the issuer.

**Equity Investments**

- define primary and secondary markets and explain how secondary markets support primary markets

45/ Solution

A. Incorrect because by going private, management can adopt a more long-term focus and can eliminate certain costs that are necessary to operate a publicly traded company. Whereas in operating a publicly traded company, management often feels pressured to focus on short-term results (e.g., meeting quarterly sales and earnings targets from analysts biased toward near-term price performance) instead of operating the company to obtain long-term sustainable revenue and earnings growth. There are three primary types of private equity investments: venture capital, leveraged buyouts, and private investment in public equity (or PIPE).

B. Incorrect because by going private, management can adopt a more long-term focus and can eliminate certain costs that are necessary to operate a publicly traded company. Whereas in operating a publicly traded company, management often feels pressured to focus on short-term results (e.g., meeting quarterly sales and earnings targets from analysts biased toward near-term price performance) instead of operating the company to obtain long-term sustainable

revenue and earnings growth. There are three primary types of private equity investments: venture capital, leveraged buyouts, and private investment in public equity (or PIPE).

C. Correct because in operating a publicly traded company, management often feels pressured to focus on short- term results (e.g., meeting quarterly sales and earnings targets from analysts biased toward near-term price performance) instead of operating the company to obtain long-term sustainable revenue and earnings growth.

**Equity Investments**

- compare and contrast public and private equity securities

46/ Solution

A. Incorrect because the value of the index at the end of period 2, not Period 3 = Beginning value x (1 + Period 1 return) x (1 + Period 2 return) = 100 ×(100+12%)×(100-8%) = 103.04, which is closest to 103.

B. Correct because it is the value of the index at the end of period 3 = Beginning value x (1+Period 1 return) x (1 + Period 2 return) x (1 + Period 3 return) = 100 ×(100+12%)×(100-8%)×(1+2%) ~ 105.10, which is closest to 105.

C. Incorrect because returns for the three periods are added, not compounded: Beginning value + (100 x Period 1 return) + (100 x Period 2 return) + (100 x Period 3 return) = 100+ (100×12%)+(100×8%) + (100×2%) = 100+128+2=106.

**Equity Investments**

- calculate and interpret the value, price return, and total return of an index

47/ Solution

A. Correct because how accurately prices reflect fundamental information depends on the costs of obtaining fundamental information and on the liquidity available to well-informed traders. If filling orders is very costly, informed trading may not be profitable. In that case, information-motivated traders will not commit resources to collect and analyze data and they will not trade. Without their research and their associated trading, prices would be less informative.

B. Incorrect because trading costs do impact informational efficiency: higher costs result in less informed trading and thereby a decrease in efficiency.

C. Incorrect because higher trading costs result in less informed trading and thereby a decrease in efficiency.

**Equity Investments**

- describe characteristics of a well-functioning financial system

48/ Solution

A. Incorrect because it uses the retention rate instead of the payout ratio;

220=60/(0.085-g) and g = 0.0577 or 5.8%.

B. Correct because justified forward P/E = p/ (r-g), where p = payout ratio = (1 - retention rate) and r = required rate of return = nominal risk-free rate + risk premium.

22=(1-0.60)/((0.025 +0.06) - g).

220.40/(0.085g) and g = 0.0668~6.7%.

C. Incorrect because it uses the current stock price instead of the P/E ratio to solve for g: 36 = 0.40 / (0.085-g) and g = 0.0739~7.4%.

**Equity Investments**

- calculate and interpret the intrinsic value of an equity security based on the Gordon (constant) growth dividend discount model or a two-stage dividend discount model as appropriate

## 49/ Solution

A. Correct because investment banks provide advice to their mostly corporate clients and help them arrange transactions such as initial and seasoned securities offerings. Additionally, a seasoned security is a security that an issuer has already issued. If the issuer wants to sell additional units of a previously issued security, it makes a seasoned offering (sometimes called a secondary offering).

B. Incorrect because depository institutions include commercial banks, savings and loan banks, credit unions, and similar institutions that raise funds from depositors and other investors and lend it to borrowers. The banks give their depositors interest and transaction services, such as check writing and check cashing, in exchange for using their money.

C. Incorrect because multilateral trading facilities (MTFs) are trading venues that function like exchanges but that do not exercise regulatory authority over their subscribers except with respect to the conduct of their trading in their trading systems.

## 50/ Solution

A. Correct because if securities markets are weak-form and semi-strong-form efficient, the implication is that active trading, whether attempting to exploit price patterns or public information, is not likely to generate abnormal returns. In other words, portfolio managers cannot beat the market on a consistent basis, so therefore, passive portfolio management should outperform active portfolio management.

B. Incorrect because if securities markets are semi-strong-form efficient, the implication is that active trading attempting to exploit price patterns is not likely to generate abnormal returns. In

other words, portfolio managers cannot beat the market on a consistent basis, so therefore, passive portfolio management should outperform active portfolio management.

C. Incorrect because if securities markets are semi-strong-form efficient, the implication is that active trading attempting to exploit public information is not likely to generate abnormal returns. In other words, portfolio managers cannot beat the market on a consistent basis, so therefore, passive portfolio management should outperform active portfolio management.

**Equity Investments**

- explain the implications of each form of market efficiency for fundamental analysis, technical analysis, and the choice between active and passive portfolio management

51/ Solution

A. Incorrect because multi-market indexes usually comprise indexes from different countries and are designed to represent multiple security markets. Multi-market indexes may represent multiple national markets, geographic regions, economic development groups, and, in some cases, the entire world. A multi-market index would not be used as a benchmark for a single country ETF.

B. Incorrect because a small cap growth index is a style index, not a multi-market index.

C. Correct because indexes also serve as market proxies when measuring risk-adjusted performance. The beta of an actively managed portfolio allows investors to form a passive alternative with the same level of systematic risk. In this case, multi-market indexes usually comprise indexes from different countries would serve as benchmarks to calculate beta for the portfolios of global stock managers.

**Equity Investments**

- describe uses of security market indexes

52/ Solution

A. Incorrect because industry classification systems are developed and used by both commercial entities and various governmental agencies.

B. Incorrect because industry classification systems are developed and used by both commercial entities and various governmental agencies.

C. Correct because industry classification systems are developed and used by both commercial entities and various governmental agencies.

**Equity Investments**

- describe industry classification methods and compare methods by which companies can be grouped

53/ Solution

A. Incorrect because, if ROE is used instead of the required rate of return, the intrinsic value = $1.048/(0.12- 0.048) = $1.048/0.072 ~ $14.56.

B. Incorrect because, if Do is used instead of $D_1$, the intrinsic value = $1.00/(0.10-0.048) = $1.00/0.052 ~$19.23.

C. Correct because intrinsic value = V $D_1$l(r-g). Therefore, Vo $1.048/(0.10-0.048) = $1.048/0.052- $20.15, where:

54/ Solution

A. Correct because in the case of a strong-form efficient market, insiders would not be able to earn abnormal returns from trading on the basis of private information. Market prices reflect private information under strong form market efficiency.

B. Incorrect because it is possible to earn abnormal profits from trading on private information when the market is weak-form efficient only. Market prices do not reflect private information under weak form market efficiency.

C. Incorrect because it is possible to earn abnormal profits from trading on private information when the market is semi-strong-form efficient only. Market prices do not reflect private information under semi-strong form market efficiency.

**Equity Investments**

- contrast weak-form, semi-strong-form, and strong-form market efficiency

55/ Solution

A. Correct because in the GICS each company is assigned to a sub-industry according to its principal business activity. Each sub-industry belongs to a particular industry; each industry belongs to an industry group; and each group belongs to a sector. In June 2009, the GICS classification structure comprised four levels of detail consisting of 154 sub- industries, 68 industries, 24 industry groups, and 10 sectors. Therefore, a sector is the broadest level of classification.

B. Incorrect because a sector is the broadest level of classification. Each industry belongs to an industry group; and each group belongs to a sector.

C. Incorrect because a sector is the broadest level of classification. Each industry belongs to an industry group; and each group belongs to a sector.

**Equity Investments**

- describe industry classification methods and compare methods by which companies can be grouped

56/ Solution

A. Correct because in the weak form of market efficiency, market prices reflect all past market data; however, it does not incorporate all public information. Therefore, investors may use fundamental analysis to outperform the market.

B. Incorrect because in a semi-strong market, all public information - past and present - is available making fundamental analysis less effective.

C. Incorrect because in a strong-form efficient market, security prices fully reflect both public and private information. In the case of a strong-form efficient market, insiders would not be able to earn abnormal returns from trading (even) on the basis of private information. Therefore, they cannot outperform the market using fundamental analysis.

**Equity Investments**

- contrast weak-form, semi-strong-form, and strong-form market efficiency

57/ Solution

A. Incorrect because price-weighted indexes are not rebalanced because the weight of each constituent security is determined by its price.

B. Correct because rebalancing is necessary because the weights of the constituent securities change as their market prices change. The weights of the securities in the equal-weighted index at the end of the period are no longer equal. Therefore equal-weighted indexes are regularly rebalanced.

C. Incorrect because price-weighted indexes are not rebalanced because the weight of each constituent security is determined by its price.

**Equity Investments**

- describe rebalancing and reconstitution of an index

58/ Solution

A. Correct because industry-level forces driving industry competition include: threat of new entrants, substitution threats, customer and supplier bargaining forces, the competitive forces in the industry (rivalry), life-cycle issues, and business-cycle considerations.

B. Incorrect because macro forces (rather than industry forces) include macroeconomic, demographic, environmental, governmental, social, and technological influences affecting the industry.

C. Incorrect because macro forces (rather than industry forces) include macroeconomic, demographic, environmental, governmental, social, and technological influences affecting the industry.

**Equity Investments**

- analyze an industry's structure and external influences using Porter's Five Forces and PESTLE frameworks

60/ Solution

A. Incorrect because most government and commercial classification systems are reviewed and, if necessary, updated from time to time. Generally, commercial classification systems are adjusted more frequently than government classification systems, which may be updated only every five years or so.

B. Incorrect because most government and commercial classification systems are reviewed and, if necessary, updated from time to time. Generally, commercial classification systems are

adjusted more frequently than government classification systems, which may be updated only every five years or so.

C. Correct because most government and commercial classification systems are reviewed and, if necessary, updated from time to time. Generally, commercial classification systems are adjusted more frequently than government classification systems, which may be updated only every five years or so.

61/ Solution

A. Incorrect because intrinsic value refers to the true value of an asset. And a primary means to estimate a company's true or intrinsic value is the present value of its future projected cash flows.

B. Correct because return on equity (ROE) is computed as net income available to ordinary shareholders (i.e., after preferred dividends have been deducted) divided by the average total book value of equity (BVE).

C. Incorrect because companies try to raise capital at the lowest possible cost, [and] the company's cost of equity is often used as a proxy for the investors' minimum required rate of return.

**Equity Investments**

- compare a company's cost of equity, its (accounting) return on equity, and investors' required rates of return

62/ Solution

A. Incorrect because style indexes represent groups of securities classified according to market capitalization, value, growth, or a combination of these characteristics. They are intended to

reflect the investing styles of certain investors, such as the growth investor, value investor, and small-cap investor.

B. Incorrect because sector indexes represent and track different economic sectors-such as consumer goods, energy, finance, health care, and technology-on either a national, regional, or global basis. A world equity index most likely does not represent a specific economic sector.

C. Correct because multi-market indexes usually comprise indexes from different countries and regions and are designed to represent multiple security markets. Multi-market indexes may represent multiple national markets, geographic regions, economic development groups, and, in some cases, the entire world. World indexes are of importance to investors who take a global approach to equity investing without any particular bias toward a particular country or region.

**Equity Investments**

- describe types of equity indexes

63/ Solution

A. Incorrect because the callable feature is not relevant in liquidation because it gives the company the right but not the obligation to buy back shares from investors. A buyback is not likely in liquidation.

B. Incorrect because the cumulative feature only requires dividends to be paid for preference shares before common dividends are paid. The payment of common dividends is not likely in liquidation and thus the cumulative characteristic is not likely to be exercised.

C. Correct because of the three characteristics, only the participating characteristic is most directly affected by liquidation of the company. Participating preference shares can also contain provisions that entitle shareholders to an additional distribution of the company's assets upon liquidation, above the par (or face) value of the preference shares.

**Equity Investments**

- describe differences in voting rights and other ownership characteristics among different equity classes

64/ Solution

A. Incorrect because one can make the case that a three-stage DDM would be most appropriate for a fairly young company, one that is just entering the growth phase, which would not be characteristic of a mature company.

B. Incorrect because one can make the case that a three-stage DDM would be most appropriate for a fairly young company, one that is just entering the growth phase, which would not be characteristic of a company that was transitioning to maturity.

C. Correct because one can make the case that a three-stage DDM would be most appropriate for a fairly young company, one that is just entering the growth phase.

**Equity Investments**

- identify characteristics of companies for which the constant growth or a multistage dividend discount model is appropriate

65/ Solution

A. Correct because management's decisions directly influence a company's net income, they also directly influence its book value of equity.

B. Incorrect because management actions can only indirectly affect the market value of its equity. The market value of the company's equity reflects the collective and differing expectations of investors concerning the amount, timing, and uncertainty of the company's future cash flows.

C. Incorrect because a company's intrinsic value can only be estimated because it is impossible to predict the amount and timing of its future cash flows. As such, this is not a value that management has direct control over.

**Equity Investments**

- contrast the market value and book value of equity securities

66/ Solution

A. Correct because market value is the price at which an asset can currently be bought or sold. Intrinsic value (sometimes called fundamental value) is, broadly speaking, the value that would be placed on it by investors if they had a complete understanding of the asset's investment characteristics. Intrinsic value can be estimated but is not known for certain.

B. Incorrect because information relevant to valuation flows continually to investors, estimates of intrinsic value change, and hence, market values change. Neither market value or intrinsic value are constant.

C. Incorrect because the market value of an asset represents the intersection of supply and demand-the point that is low enough to induce at least one investor to buy while being high enough to induce at least one investor to sell. Intrinsic value is the present value of future cash flows as opposed to the intersection of supply and demand.

**Equity Investments**

- contrast market value and intrinsic value

67/ Solution

A. Incorrect because the potential gains on a short position are limited to no more than 100 percent whereas the potential losses are unbounded.

B. Correct because short sellers create short positions in securities by borrowing securities from

security lenders who are long holders. The short sellers then sell the borrowed securities to other traders. The potential gains on a short position are limited to no more than 100 percent whereas the potential losses are unbounded.

C. Incorrect because the potential gains on a short position are limited to no more than 100 percent whereas the potential losses are unbounded.

**Equity Investments**

- compare positions an investor can take in an asset

68/ Solution

A. Correct because money markets trade debt instruments maturing in one year or less. The most common such instruments are repurchase agreements, negotiable certificates of deposit, government bills.

B. Incorrect because capital markets trade instruments of longer duration, such as bonds and equities. Whereas government bills are a short-term debt instrument.

C. Incorrect because alternative investments include hedge funds, private equities (including venture capital), commodities, real estate securities and real estate properties, securitized debts, operating leases, machinery, collectibles, and precious gems.

**Equity Investments**

- describe classifications of assets and markets

69/ Solution

A. Correct because multiplier models are based chiefly on share price multiples or enterprise value multiples. Enterprise value (EV) multiples have the form (Enterprise value)/(Value of a fundamental variable). Two possible choices for the denominator are earnings before interest,

taxes, depreciation, and amortization (EBITDA) and total revenue.

B. Incorrect because present value models estimate the intrinsic value of a security as the present value of the future benefits expected to be received from the security. In present value models, benefits are often defined in terms of cash expected to be distributed to shareholders (dividend discount models) or in terms of cash flows available to be distributed to shareholders after meeting capital expenditure and working capital needs (free-cash-flow-to-equity models).

C. Incorrect because asset-based valuation models estimate intrinsic value of a common share from the estimated value of the assets of a corporation minus the estimated value of its liabilities and preferred shares. The estimated market value of the assets is often determined by making adjustments to the book value (synonym: carrying value) of assets and liabilities. The theory underlying the asset-based approach is that the value of a business is equal to the sum of the value of the business's assets.

**Equity Investments**

- describe major categories of equity valuation models

70/ Solution

A. Incorrect because real assets tend to trade in very illiquid markets.

B. Incorrect because investments in real assets generally require substantial management to ensure that the assets are maintained and used efficiently. Investment managers investing in such assets must either hire personnel to manage them or hire outside management companies. Either way, management of real assets is quite costly.

C. Correct because real assets are unique properties in the sense that no two properties are alike.

**Equity Investments**

- describe the major types of securities, currencies, contracts, commodities, and real assets that trade in organized markets, including their distinguishing characteristics and major subtypes

71/ Solution

A. Correct because option holders generally will exercise call options if the strike price is below the market price of the underlying instrument, in which case, they will be able to buy at a lower price than the market price. Similarly, they will exercise put options if the strike price is above the underlying instrument price so that they will sell at a higher price than the market price. Therefore, if the investor purchases a put option and the US market declines, they will profit by buying at the lower market price and selling at the higher strike price.

B. Incorrect because option holders generally will exercise call options if the strike price is below the market price of the underlying instrument, in which case, they will be able to buy at a lower price than the market price. Similarly, they will exercise put options if the strike price is above the underlying instrument price so that they will sell at a higher price than the market price.

C. Incorrect because a currency swap is a swap in which parties exchange payments denominated in different currencies. A currency swap will most likely not allow a European investor to profit from the decline in the US equity market.

72/ Solution

A. Correct because regulation would not be necessary if customers could identify competent agents and effectively measure their performance. Therefore an increase in client ability to identify competent agents would reduce the need for regulation.

B. Incorrect because the clients' difficulty in identifying competent agents results in a regulatory need. An increase in their ability to select competent agents would reduce this regulatory need.

C. Incorrect because the clients' difficulty in identifying competent agents results in a regulatory need. An increase in their ability to select competent agents would reduce, not increase, this regulatory need.

**Equity Investments**

- describe objectives of market regulation

74/ Solution

A. Incorrect because intrinsic value is often defined as the present value of all expected future cash flows of the asset.

B. Correct because the book value of a company's equity is the difference between its total assets and total liabilities.

C. Incorrect because this the total market value of equity (or market capitalization) computed as the number of shares outstanding multiplied by the market price per share.

**Equity Investments**

- contrast the market value and book value of equity securities

75/ Solution

A. Incorrect because ROE can increase if net income increases at a faster rate than shareholders' equity or if net income decreases at a slower rate than shareholders' equity. If shareholder equity increases at a faster rate than net income increases, then ROE will decrease, not increase.

B. Incorrect because ROE can increase if net income increases at a faster rate than shareholders' equity or if net income decreases at a slower rate than shareholders' equity. If shareholder equity increases at the same rate as net income, then ROE will remain the same and not increase.

C. Correct because ROE can increase if net income increases at a faster rate than shareholders' equity or if net income decreases at a slower rate than shareholders' equity.

**Equity Investments**

- compare a company's cost of equity, its (accounting) return on equity, and investors' required rates of return

## 76/ Solution

A. Correct because style indexes represent groups of securities classified according to market capitalization, value, growth, or a combination of these characteristics. They are intended to reflect the investing styles of certain investors, such as the growth investor, value investor, or small-cap investor.

B. Incorrect because sector indexes represent and track different economic sectors-such as consumer goods, energy, finance health care, and technology-on either a national, regional, or global basis.

C. Incorrect because multi-market indexes may represent multiple national markets, geographic regions, economic development groups, and, in some cases, the entire world.

**Equity Investments**

- describe types of equity indexes

## 77/ Solution

A. Incorrect because the company's justified forward P/E is not less than the peer group's justified forward P/E, but is the same. The company's justified forward P/E = p / (r- g)= 0.40 / (0.09 -0.05) = 10.0. The peer group's justified forward P/E = 0.50 / (0.09 -0.04) 10.0. The candidate may select this response if they believe the company's lower payout ratio results in a lower P/E.

B. Correct because the company's justified forward P/E is the same as the peer group's justified forward P/E. The company's justified forward P/E = p / (r-g) = 0.40 / (0.09 -0.05)= 10.0. The peer

group's justified forward P/E =0.50/(0.09 -0.04) 10.0.

C. Incorrect because the company's justified forward P/E is not greater than the peer group's justified forward P/E, but is the same. The company's justified forward P/E = p / (r-g)= 0.40/(0.09 -0.05) = 10.00. The peer group's

## 78/ Solution

A. Correct because the ex-dividend date (or ex-date) is the first date that a share trades without (i.e., 'ex') the dividend. Because buyers of a company's shares on the ex-dividend date are no longer eligible to receive the upcoming dividend, all else being equal, on that day the company's share price immediately decreases by the amount of the foregone dividend. If the share trades at $29.00 on 19 August (the day before ex-date) and the upcoming dividend is $0.50, then all else being equal, the shares would trade at $28.50 ($29.00 - $0.50) on the ex-date.

B. Incorrect because $29.00 is the price of the share before the ex-date which is the last day purchasers will receive the upcoming dividend. All else being equal, the share price should trade below $29.00 and not at or above $29.00.

C. Incorrect because purchasers of shares on the ex-date or after the ex-date will not be entitled to the upcoming dividend and the share price should trade below $29.00 and not above $29.00. An uninformed candidate may confuse the dates and think that the share price on the ex-date should include dividends declared and inadvertently think that the 19 August share price doesn't include the dividend. Therefore the uninformed candidate adds $0.50 to the share price to arrive at $29.50.

## Equity Investments

- describe dividend payment chronology

## 79/ Solution

A. Correct because the ex-dividend date (or ex-date) is the first date that a share trades without

(i.e., 'ex') the dividend. Thus, an investor will be able to receive the company's dividend if he purchases shares no later than on 1 August, one business day before ex-date of 2 August.

B. Incorrect because in order to receive the dividend, the last day to purchase shares is the business day before the ex-date. An uninformed candidate may incorrectly assume that ex-date is the last date when shares are traded with the dividend.

C. Incorrect because in order to receive the dividend, the last day to purchase shares is the business day before the ex-date. An uninformed candidate may incorrectly assume that if an investor purchases the stock before the holder-of-record date, they can still receive the dividend.

**Equity Investments**

- describe dividend payment chronology

80/ Solution

A. Incorrect because loss aversion refers to the tendency of people to dislike losses more than they like comparable gains. Some argue that behavioral theories of loss aversion can explain observed overreaction in markets. Thus loss aversion is related to behavioral finance and is not a market anomaly.

B. Incorrect because earnings surprise, is the portion of earnings that is unanticipated by investors and, according to the efficient market hypothesis, merits a price adjustment. Earnings surprise is a type of market anomaly but is not the January effect.

C. **Correct** because the January effect, has been observed in most equity markets around the world. This anomaly is also known as the "turn-of-the-year" effect. The January effect is a time series anomaly and is an observed pricing anomaly.

**Equity Investments**

- describe market anomalies

81/ Solution

A. Incorrect because the expected rate of return for Stock 1 is equal to the investor's required rate of return. If investors require a higher rate of return on equity than the company's cost of equity, they would sell their shares and invest their funds elsewhere resulting in a decline in the company's share price.

B. Correct because the expected rate of return for Stock 2 exceeds the investor's required rate of return. In other words, the cost of equity can be thought of as the minimum expected rate of return that a company must offer its investors to purchase its shares in the primary market and to maintain its share price in the secondary market. If this expected rate of return is not maintained in the secondary market, then the share price will adjust so that it meets the minimum required rate of return demanded by investors. For example, if investors require a higher rate
of return on equity than the company's cost of equity, they would sell their shares and invest their funds elsewhere resulting in a decline in the company's share price.

C. Incorrect because the expected rate of return for Stock 3 is below the investor's required rate of return. If investors require a higher rate of return on equity than the company's cost of equity, they would sell their shares and invest their funds elsewhere resulting in a decline in the company's share price.

82/ Solution

A. Incorrect because behavioral biases can affect all market participants, from the novice investor to the most experienced investment manager.

B. Correct because the focus of much of the work in this area is on the behavioral biases that affect investment decisions. The behavior of individuals, in particular their behavioral biases, has been offered as a possible explanation for a number of pricing anomalies.

C. Incorrect because behavioral finance does not assume that people consider all available information in decision-making.

**Equity Investments**

- describe behavioral finance and its potential relevance to understanding market anomalies

83/ Solution

A. Incorrect because it incorrectly uses D, instead of $D_1$: r = \$4/\$92 + 4% = 8.348%, which is closest to 8.35%.

B. **Correct** because the Gordon growth model is $V_1$ = D, / (r-g), where V, is current value, D, is next year's x dividend (D, * (1 + g)), r is required return and g is growth rate. Solving this equation for r is r = D, / Vo + g = (Do X × (1+g)) / Vo+g.

r = (\$4 × (1+4%)) / \$92 + 4% = (\$4.16) / \$92+4% = 8.522%, which is closest to 8.52%.

84/ Solution

A. Correct because the ex-dividend date (or ex-date), the first date that a share trades without (i.e., "ex") the dividend.

B. Incorrect because payment date (or payable date), which is the day that the company actually mails out (or electronically transfers) a dividend payment to shareholders.

C. Incorrect because the declaration date, the day that the company issues a statement declaring a specific dividend.

**Equity Investments**

- describe regular cash dividends, extra dividends, stock dividends, stock splits, reverse stock splits, and share repurchases

85/ Solution

A. Incorrect because it is equal to the par value + 1% (the difference between the 5% dividend

and the 4% required return). 25 × (1+ (0.05 -0.04)) = $25.25. Also, if a candidate mistakenly

calculates $V_2$ = (25 × 0.04)/0.05 = $20.00, which is closest to this answer choice.

B. Incorrect because it is the par value multiplied by the required return = 25 × (1+0.04) = $26.

C. Correct because the estimated intrinsic value (Vo) is:

V0 = D0/ r , where D0 = dividend, and r = the required rate of return. The D0 = par value x

annual dividend rate V0 = $25 × 0.05 $1.25. $1.25/0.04 = $31.25.

**Equity Investments**

- calculate the intrinsic value of a non-callable, non-convertible preferred stock

86/ Solution

A. Incorrect because 2 is the starting leverage before the price change, 1/0.5 = 2

B. Correct because the leverage ratio is defined as the ratio of the value of the position to the

value of the equity investment in it. The leverage ratio indicates how many times larger a

position is than the equity that supports it.

The starting leverage value/equity = 1/0.5 = 2

The change in market value is given as 25% decline, implying a new market value of 75%.

With leverage of 2, new equity reduces by 2 * 25 \%=50\% 50% * 50 \%=t remaining equity of

25%.

New leverage = new value/new equity = 0.75/0.25 = 3 .

Expressed alternatively: New leverage = (1 - 0.25) / (0.5 - 0.25) = 3 .

C. Incorrect because the amount of the price decline is used instead of the margin to calculate

the leverage ratio, 1/ 0.25 = 4.

**Equity Investments**

- calculate and interpret the leverage ratio, the rate of return on a margin transaction, and the security price at which the investor would receive a margin call

87/ Solution

A. Incorrect because the fundamental variable may be stated on a forward basis (e.g., forecasted EPS for the next year) or a trailing basis (e.g., EPS for the past year), as long as the usage is consistent across companies being examined.

B. Incorrect because the fundamental variable may be stated on a forward basis (e.g., forecasted EPS for the next year) or a trailing basis (e.g., EPS for the past year), as long as the usage is consistent across companies being examined.

C. Correct because the fundamental variable may be stated on a forward basis (e.g., forecasted EPS for the next year) or a trailing basis (e.g., EPS for the past year), as long as the usage is consistent across companies being examined.

**Equity Investments**

- describe major categories of equity valuation models

88/ Solution

A. Correct because the leverage ratio is the ratio of the value of the position to the value of the equity investment in it.

B. Incorrect because the leverage ratio is the ratio of the value of the position to the value of the equity investment in it.

C. Incorrect because the leverage ratio is the ratio of the value of the position to the value of the equity investment in it.

**Equity Investments**

- calculate and interpret the leverage ratio, the rate of return on a margin transaction, and the security price at which the investor would receive a margin call

89/ Solution

A. Incorrect because the market price equals the calculated intrinsic value, implying the shares are not undervalued.

B. **Correct** because the market price is equal to the calculated value based on the stated rate of return. Since the preferred share pays a perpetual level dividend, its value is $V_1 = D/r =$ $1.20/0.06 = $20. If the estimated value equals the market price, the analyst infers the security is fairly valued.

C. Incorrect because the market price equals the calculated intrinsic value, implying the shares are not overvalued.

**Equity Investments**

- calculate the intrinsic value of a non-callable, non-convertible preferred stock

90/ Solution

A. Incorrect because the leverage ratios with the two brokers are the same at both firms given Broker 1's margin requirement and Broker 2's maximum leverage ratio. Leverage Ratio 100% / margin requirement: Broker 1 leverage ratio = 100%/62.5% = 1.6 Broker 2's leverage ratio. =

B. **Correct** because the maximum financial leverage is the same at both firms given Broker 1's margin requirement and Broker 2's maximum leverage ratio. Leverage Ratio = 100% / margin requirement: Broker 1 leverage ratio = 100% / 62.5% 1.6 Broker 2's leverage ratio.

C. Incorrect because the leverage ratios with the two brokers are the same at both firms given Broker 1's margin requirement and Broker 2's maximum leverage ratio. Leverage Ratio = 100% / margin requirement: Broker 1 leverage ratio = 100% / 62.5% 1.6 Broker 2's leverage ratio.

91/ Solution

A. Incorrect because it is (1 - the minimum margin requirement): 1-(1/1.75) = 43%.

B. Correct because the maximum leverage ratio associated with a position financed by the minimum margin requirement is one divided by the minimum margin requirement. Or, MLR= 1/ MMR and MMR = 1 / MLR. In this case: the minimum margin requirement (MMR) = 1 / 1.75 = 57%.

C. Incorrect because it is (the maximum leverage ratio-1)= 1.75-1 = 75%.

**Equity Investments**

- calculate and interpret the leverage ratio, the rate of return on a margin transaction, and the security price at which the investor would receive a margin call

92/ Solution

A. Incorrect because the size effect is a cross-sectional anomaly, not a time-series anomaly. Two of the most researched cross-sectional anomalies in financial markets are the size effect and the value effect. The size effect results from the observation that equities of small-cap companies tend to outperform equities of large-cap companies on a risk-adjusted basis.

B. Correct because the momentum anomaly is best described as a time-series anomaly. Momentum anomalies relate to short-term share price patterns where past price moves continued through time to move in the same direction.

C. Incorrect because the Initial Public Offering (IPO) anomaly is best described as an "other" anomaly.

**Equity Investments**

- describe market anomalies

93/ Solution

A. Incorrect because dividend payout ratio instead of retention ratio is used to calculate g = 0.40 × 20% = 8%, so the P/E ratio = 0.40 / (0.15-0.08) = 5.7,

B. Incorrect because the denominator is calculated as return on equity - required rate of return on equity, hence the P/E ratio 0.40/(0.20-0.15)= 8.0.

C. Correct because the justified forward P/E ratio = $Po/E_1$ = p/ (r-g), where p is the dividend payout ratio, r is the required rate of return, g is the sustainable dividend growth rate; g = bx ROE where b is the earning retention

94/ Solution

A. Incorrect because it uses the relative change in stock price as the margin requirement.

Margin requirement = (50 -43.75)/50 12.5% 13%.

B. Incorrect because it divides by the initial price instead of the last price. (Initial equity + actual price - initial price)/ (initial price) = (15+ 43.75-50/50 17.5% = 18%

C. Correct because the margin requirement is equity per share / price per share:= (Initial equity + actual price - initial price)/(actual price) (15+43.75-50)/43.75 = 20%.

**Equity Investments**

- calculate and interpret the leverage ratio, the rate of return on a margin transaction, and the security price at which the investor would receive a margin call


95/ Solution

A. Incorrect because at a share price of $12.50 and a margin loan of $25, equity will be negative. $12.50 is 25% of the current price of $50 per share.

B. Correct because the original equity of $25 indicates a margin loan of $25 ($50-$25). At a stock price of $33.33, equity will equal $33.33 less the $25 margin loan, or $8.33, which is 25% of the equity per share. $8.33/$33.33= 25%. To reach this answer through calculation, determine where the equity per share equals the 25% margin requirement:

Equity/Share = (P-L)/P = maintenance margin;

Where P = Share price and L = Loan amount;

0.25 (P-$25)/P; P= $33.33.

C. Incorrect because (1- maintenance margin) x price = (1-0.25) x $50 = $37.50.


96/ Solution

A. Incorrect because the value effect is a market anomaly that value stocks, which are generally referred to as stocks that have below-average price-to-earnings (P/E) and market-to-book (M/B) ratios, and above-average dividend yields, have consistently outperformed growth stocks over

long periods of time. This is a cross-sectional anomaly and is not related to an information release

B. Correct because the overreaction effect or anomaly is described as the propensity for investors to overreact to the release of unexpected public information. Therefore, stock prices will be inflated (depressed) for those companies releasing good (bad) information. In other words, inflated (depressed) here means the change of value that is overshooting (undershooting) the fair (intrinsic) value after incorporating the new information, rather than the price action that goes up (down) itself.

C. Incorrect because the turn-of-the-year effect is a calendar anomaly that stock market returns in January were significantly higher compared to the rest of the months of the year, with most of the abnormal returns reported during the first five trading days in January. This is a time-series anomaly related to the calendar but not an information release.

**Equity Investments**

- describe market anomalies.


97/ Solution

A. Correct because the order matching rules match buy orders to sell orders.

B. Incorrect because the trade pricing rules (not the order matching rules) determine the prices at which the matched trades take place, regardless of who submits the order, the customer or dealer.

C. Incorrect because the trade pricing rules (not the order matching rules) determine the prices at which the matched trades take place, regardless of who submits the order, the customer or the dealer.

**Equity Investments**

- describe how securities, contracts, and currencies are traded in quote-driven, order-driven, and brokered markets

98/ Solution

A. Incorrect because the objectives of market regulation are to control agency problems and ensure that long-term liabilities are funded. Therefore, an objective of market regulation is not to control agency problems only.

B. Incorrect because the objectives of market regulation are to control agency problems and ensure that long-term liabilities are funded. Therefore, an objective of market regulation is not to ensure that long-term liabilities are funded only.

C. Correct because the objectives of market regulation include both controlling agency problems and ensuring that long-term liabilities are funded. In total, the objectives of market regulation are:

1 control fraud;

2 control agency problems;

3 promote fairness;


99/ Solution

A. Correct because the P/B value for the company is $30/$40 = 0.75, which is above the benchmark ratio of 0.6, indicating the shares are overvalued based on P/B (ie, the ratio is higher than the benchmark). Both the P/E and P/CF ratios for the company are below their benchmarks, and therefore are not overvalued on that basis (see calculations options B and C).

B. Incorrect because the P/E value for the company is $30/$310, which is below the benchmark ratio of 12, indicating the shares are undervalued based on P/E (ie. the ratio is lower than the benchmark).

C. Incorrect because the P/CF value for the company is $30/$47.5, which is below the benchmark ratio of 8. indicating the shares are undervalued based on P/CF (Le. the ratio is lower than the benchmark).


100/ Solution

A. Incorrect because power of buyers is part of the five forces.

B. Incorrect because threat of substitutes is part of the five forces.

C. Correct because the position of a company in its life-cycle stage is not part of Porter's five forces. The five forces are: threat of entry, power of suppliers, power of buyers, threat of substitutes, and rivalry among existing competitors.

**Equity Investments**

- analyze an industry's structure and external influences using Porter's Five Forces and PESTLE frameworks

101/ Solution

A.Incorrect because it uses the leverage ratio debt / equity invested instead of dividing the total equity investment by the leverage ratio.The incorrect answer is calculated as follows:

Proceeds on sale - payoff amount borrowed - payoff loan interest Amount paid to purchase shares =\$ 12 * 2000 =\$24,000

Equity investment = $24,000/4= $6,000

Amount borrowed = $24,000-$6,000 = $18,000

Interest on loan =\$ 18000 * 3 \%=\$540

Therefore, remaining equity = 2000S * 9.5 - S * 18000 - 3% * S * 18000 =\$19,000-\$18,000-\$540=\$460.

B. Correct because the remaining equity can be calculated as:

Proceeds on sale - payoff amount borrowed - payoff loan interest

Amount paid to purchase shares =\$ 12 * 2000 =\$24,000

Equity investment = $24,000/3= $8,000

Amount borrowed = $24,000 - $8,000 $16,000

Interest on loan =\$ 16 * 3 \%=\$480

Therefore, remaining equity = 2000S * 9.5 - S * 16000 - 3% * S * 16000 =S19,000-\$16,000-S480=S2,520

102/ Solution

A. Correct because the security's market price is less than its intrinsic value, indicating that it is undervalued. The dividend discount model can be used to estimate an asset's intrinsic value.

B. Incorrect because the security's market price is less than its intrinsic value, indicating that it is undervalued. The dividend discount model can be used to estimate an asset's intrinsic value.

C. Incorrect because the security's market price is less than its intrinsic value, indicating that it is undervalued. The dividend discount model can be used to estimate an asset's intrinsic value.

**Equity Investments**

- contrast market value and intrinsic value

103/ Solution

A. **Correct** because the use of convertible preference shares is a popular financing option in venture capital and

private equity transactions in which the issuing companies are considered to be of higher risk and when it may be years before the issuing company 'goes public' (ie., issues common shares to the public).

B. Incorrect because the convertible preference shares' price is less volatile than the underlying common shares because the dividend payments are known and more stable.

C. Incorrect because convertible preference shares allow investors to benefit from a rise in the price of the common shares through the conversion option.

**Equity Investments**

- describe characteristics of types of equity securities

104/ Solution

A. Incorrect because it calculates return on equity as unleveraged return (1 + margin) = 40% (1+30% ) = 52%. B. Incorrect because it calculates return on equity as margin / return = 30% /40% = 75%. In other words, it incorrectly swaps the numerator and denominator in the correct

solution (40%/30% becomes 30% /40%).

C. Correct because the return on equity to a margin position is calculated by multiplying the unleveraged return by the financial leverage ratio. The financial leverage ratio is equal to 1/margin. In this case, financial leverage is 1/0.30= 3.3333, so the return on equity = 40% 3.3333 133.33%, which is closest to 133%.

**Equity Investments**

- calculate and interpret the leverage ratio, the rate of return on a margin transaction, and the security price at which the investor would receive a margin call

105/ Solution

A. Incorrect because the size effect results from the observation that equities of small-cap companies tend to outperform equities of large-cap companies on a risk-adjusted basis.
B. Incorrect because the size effect results from the observation that equities of small-cap companies tend to outperform equities of large-cap companies on a risk-adjusted basis.
C. Correct because the size effect results from the observation that equities of small-cap companies tend to outperform equities of large-cap companies on a risk-adjusted basis.

**Equity Investments**

- describe market anomalies

106/ Solution

A. Incorrect because the degree of industry concentration most likely explains the bargaining power of suppliers, which is a different Porter force.
B. Incorrect because the availability of lower priced alternative brands most likely explains the threat of substitution, a different Porter force.
C. Correct because the smaller the number of buyers, the more likely buyer power will increase. Bargaining Power of Customers. Affected by: size and concentration of customers, costs of switching to other suppliers, customers ability to produce the product or service themselves. Are customers able to force price reductions or better payment terms? This can affect the

intensity of competition by exerting influence on suppliers regarding prices (and possibly other factors such as product quality). For example, auto parts companies generally sell to a small number of auto manufacturers, which allows those customers, the auto manufacturers, to be tough negotiators when it comes to setting prices.

**Equity Investments**

- analyze an industry's structure and external influences using Porter's Five Forces and PESTLE frameworks

107/ Solution

A. Correct because this is the return on investment to the investor.

Total purchase price = $25/share x 1,000 shares = $25,000

Leverage ratio of 2 indicates buyer's equity of 1/2

Buyer's equity = 1/2* $25,000 = $12,500

Borrowed money = $25,000-$12,500 $12,500

Interest on borrowed money = 5% x $12,500 = $625

Sale proceeds = $20/share × 1,000 shares = $20,000

Net return to buyer = Sale proceeds - purchase price- interest payment = $20,000-$25,000-$625-$5,625

Return on investment to the buyer = -$5.625/$12,500-45%

108/ Solution

A. Incorrect because 25% is the stock's weight using equal-weighted method: 1 stock / 4 stocks = 25%

B. Incorrect because this is the stock's weight using the price-weighted method: stock's price/index value = $30/ 100 = 30%.

C. Correct because the stock's weight in a market-capitalization-weighted index = market capitalization of stock/ market capitalization of index = $20 billion / $57 billion = 35.08%, which

is closest to 35%.

**Equity Investments**

- calculate and analyze the value and return of an index given its weighting method

109/ Solution

A. Incorrect because the beginning and ending index values were reversed in the calculation: (1540-1575+55)/1575=20/1575 = 1.3%.

B. Incorrect because the income is not taken into account: (1575-1540)/154035/1540 = 2.2%.

C. Correct because the total return of an index is the price appreciation, or change in the value of the price return index, plus income (dividends and/or interest) over the period, expressed as a percentage of the beginning value of the price return index. Total return = (ending index value - beginning index value + income) / beginning index value = (1575-1540 +55)/1540 = 90/1540 = 5.8%.

**Equity Investments**

- calculate and interpret the value, price return, and total return of an index

110/ Solution

A. Correct because under all forms of market efficiency past trading data are already reflected in current prices and investors cannot predict future price changes by extrapolating prices or patterns of prices from the past. Therefore, if investors can predict future asset prices based on past prices, markets are inefficient.

B. Incorrect because in the weak-form efficient market hypothesis, security prices fully reflect all past market data, which refers to all historical prices and trading volume information. If markets are weak-form efficient, past trading data are already reflected in current prices and investors cannot predict future price changes by extrapolating prices or patterns of prices from the past.

C. Incorrect because under all forms of market efficiency past trading data are already reflected in current prices and investors cannot predict future price changes by extrapolating prices or

patterns of prices from the past.

**Equity Investments**

- explain the implications of each form of market efficiency for fundamental analysis, technical analysis, and the choice between active and passive portfolio management

111/ Solution

A. Incorrect because it is the present value of the terminal value at the end of Year 3: $108.8640/(1.10)" = $81.7911 - $81.79.

B. Incorrect because it is the current intrinsic value, which includes the present values of the dividends for the first three years, plus the present value of the terminal value at the end of Year 3.

| | Current | Year 1 | Year 2 | Year3 | Total |
|---|---|---|---|---|---|
| Dividend | $3.0000 | $3.6000 | $4.3200 | $5.1840 | ...... |
| Periods of discounting | ..... | 1 | 2 | 3 | ...... |
| Discount factor at 10% per year | ..... | 0.9091 | 0.8264 | 0.7513 | ...... |
| Present value of dividend | ..... | $3.2727 | $3.5702 | $3.8948 | $10.7378 |
| Present value of terminal value (second stage) | ..... | ...... | ...... | ..... | $108.8640/(1.10)^3=$81.7911 |
| Total | ..... | ...... | ...... | .... | $92.5289~$92.53 |

C. Correct because the value at the end of Year 3 (same as at the beginning of Year 4) will be: V = $D(1+g_1)/(r- g_1)$ = D(r-g), where g, = long-term growth rate. The Year 4 dividend equals the initial dividend compounded at 20% for three years, then compounded at 5% for another year; D, = $3 x (1.2)x(1.05) $5.4432. V = $5.4432/(0.10-0.05)= $108.8640~ $108.86.

**Equity Investments**

- calculate and interpret the intrinsic value of an equity security based on the Gordon (constant) growth dividend discount model or a two-stage dividend discount model, as appropriate

112/ Solution

A. Incorrect because an equal weighted index requires frequent rebalancing, not reconstitution, when its constituent securities' prices change. Equal weighting has a number of disadvantages. After the index is constructed and the prices of constituent securities change, the index is no longer equally weighted. Therefore, maintaining equal weights requires frequent adjustments (rebalancing) to the index.

B. Correct because this is considered a disadvantage of an equal weighted index. Equal weighting has a number of disadvantages. Securities that constitute the largest fraction of the target market value are underrepresented, and securities that constitute a small fraction of the target market value are overrepresented.

C. Incorrect because smaller stocks are overrepresented in an equal weighted index. Equal weighting has a number of disadvantages. Securities that constitute the largest fraction of the target market value are underrepresented, and securities that constitute a small fraction of the target market value are overrepresented.

**Equity Investments**

- describe the choices and issues in index construction and management

113/ Solution

A. Correct because using the formula:

V=Stock's intrinsic value; F = par value per share; r = required rate of return; n = maturity.

Where: $V_1$ = €125;

F= €100:

r = 7.2% divided by 2 to arrive at semi-annual rate of 3.6%;

n=5 = 5 years multiplied by 2 to arrive at 10.

114/ Solution

A. Incorrect because private companies have lower regulatory costs: by 'going private, management can adopt a more long-term focus and can eliminate certain costs that are necessary to operate a publicly traded company- such as the cost of meeting regulatory and stock exchange requirements.

B. Incorrect because private companies focus more on long-term results: the move to longer holding periods has given private equity investors the opportunity to more effectively and patiently address any underlying operational issues facing the company and to better manage it for long-term value creation.

C. Correct because there is no active secondary market for equity of private companies and the shares require negotiations between investors in order to be traded. This is in contrast to public companies, which have secondary markets for trading their equity.

**Equity Investments**

* compare and contrast public and private equity securities

115/ Solution

A. Incorrect because dividends are not accounted for. It is simply the price return of the index. Price return for Stock 1= ($8-$10)/$10=-0.20-20%. Price return for Stock 2 = ($24-$20)/$20 = 0.20 = 20%. Price return for Stock 3 = ($30-$30)/$300.00 0%. The price return of the index = -

20% +20% +0% 0% / 3 = 0%. B. Correct because total return measures price appreciation plus interest, dividends, and other distributions. Thus, the total return of an index is the price appreciation, or change in the value of the price return index, plus income (dividends and/or interest) over the period, expressed as a percentage of the beginning value of the price return index. Price return for Stock 1 = ($8-$10)/$10=-0.20=-20%. Total return price return + dividends = -20% +2%=-18%. Price return for Stock 2 = ($24-$20)/$20=0.20 = 20%. Total return 20%+2% = 22%. Price return for Stock 3 = ($30-$30)/$300.00 0%. Total return = 0%+2% 2%. The total return of the index = (- = 18% +22%+2%) / 36% / 32%.

116/ Solution

A. Incorrect because restrictions on short selling limit arbitrage trading, which impedes market efficiency.

B. Correct because transaction costs are incurred in trading to exploit any perceived market inefficiency. If there are limits on transaction costs, more investors would be encouraged to trade. This brings about increased number of market participants which in turn contributes to market efficiency. One of the most critical factors contributing to the degree of efficiency in a market is the number of market participants.

C. Incorrect because a lack of trading activity can cause or accentuate other market imperfections that impede market efficiency. In fact, in many of these markets, such as China, trading in many of the listed stocks is restricted for foreigners. By nature, this limitation reduces the number of market participants, restricts the potential for trading activity, and hence reduces market efficiency

**Equity Investments**

- explain factors that affect a market's efficiency

117/ Solution

A. Correct because when a company's shares split, their price declines and their weight in a

price-weighted index is reduced, regardless of the importance of the stock.

B. Incorrect because each stock's percentage price change has equal weight in an equal-weighted index, and a split has no influence on the result.

C. Incorrect because there is an automatic adjustment for stock splits and other capital changes in a value- weighted index

**Equity Investments**

- compare the different weighting methods used in index construction

118/ Solution

A. Correct because when investors sell securities to others, they trade in the secondary market. In the secondary market, funds flow between traders.

B. Incorrect because in the secondary market, funds flow between traders, while in the primary market, funds flow to the issuer of the security from the purchaser (not vice versa).

C. Incorrect because in the primary (not secondary) market, funds flow to the issuer of the security from the purchaser (investors).

**Equity Investments**

- define primary and secondary markets and explain how secondary markets support primary markets

119/ Solution

A. Correct because when issuers sell securities to investors, practitioners say that they trade in the primary market

B. Incorrect because when issuers sell securities to investors, practitioners say that they trade in the primary market. When investors sell those securities to others, they trade in the secondary market.

C. Incorrect because when issuers sell securities to investors, practitioners say that they trade in the primary market. When investors sell those securities to others, they trade in the secondary market. In the primary market, funds flow to the issuer of the security from the purchaser. In

the secondary market, funds flow between traders.

**Equity Investments**

- describe classifications of assets and markets

120/ Solution

A. Incorrect because well functioning financial systems are characterized by liquid markets in which the costs of trading are low (operationally efficient markets) and therefore execution costs would not impact asset prices.

B. Incorrect because well functioning financial systems are characterized by prices that reflect fundamental values so that prices vary primarily in response to changes in fundamental values and not to demands for liquidity made by uninformed traders (informationally efficient markets).

C. Correct because well functioning financial systems are characterized by prices that reflect fundamental values so that prices vary primarily in response to changes in fundamental values and not to demands for liquidity made by uninformed traders (informationally efficient markets).

**Equity Investments**

- describe characteristics of a well-functioning financial system

121/ Solution

A. Incorrect because companies often raise money for projects by selling (issuing) ownership interests (e.g... corporate common stock or partnership interests). Although these equity instruments legally represent ownership in companies rather than loans to the companies, selling equity to raise capital is simply another mechanism for moving money from the future to the present.

B. Incorrect because when shareholders or partners contribute capital to a company, the company obtains money in the present in exchange for equity instruments that will be entitled to distributions in the future. The repayment of the money is not scheduled as it would be for

loans.

C. Correct because when a company sells common stock to raise capital, regulatory reporting requirements and accounting standards attempt to ensure the production of meaningful financial disclosures.

**Equity Investments**

- explain the main functions of the financial system

122/ Solution

A. Correct because dividends on preference shares are known and fixed, and they account for a large portion of the preference shares total return. Therefore, there is less uncertainty about future cash flows.

B. Incorrect because the amount preference shareholders will receive if the company is liquidated is known and fixed as the par (or face) value of their shares. However, there is no guarantee that investors will receive that amount if the company experiences financial difficulty.

C. Incorrect because dividends account for a large portion of the preference shares' total return. With common shares, however, a larger portion of shareholders' total return (or all of their total return for non-dividend shares) is based on future price appreciation.

**Equity Investments**

- describe characteristics of types of equity securities

123/ Solution

A. Correct because the Gordon growth model assumes that the growth rate cannot be greater than the required rate of return. Also, the dividend growth rate is strictly less than the required rate of return.

B. Incorrect because the Gordon growth model assumes that the growth rate cannot be greater

than the required rate of return.

C. Incorrect because the Gordon growth model assumes that the growth rate cannot be greater than the required rate of return.

**Equity Investments**

- identify characteristics of companies for which the constant growth or a multistage dividend discount model is appropriate

124/ Solution

A. Incorrect because private equity securities are issued primarily to institutional investors via non-public offerings, such as private placements. Because they are not listed on public exchanges, there is no active secondary market for these securities.

B. Correct because private equity securities do not have "market determined" quoted prices, are highly illiquid, and require negotiations between investors in order to be traded.

C. Incorrect because financial statements and other important information needed to determine the fair value of private equity securities may be difficult to obtain because the issuing companies are typically not required by regulatory authorities to publish this information.

**Equity Investments**

- describe characteristics of types of equity securities

125/ Solution

A. Correct because-of its assumption of a constant growth rate, the Gordon growth model is particularly appropriate for valuing the equity of dividend-paying companies that are relatively insensitive to the business cycle and in a mature growth phase. Examples might include an electric utility.

B. Incorrect because a technology firm is a cyclical company whose earnings are sensitive to the

business cycle. Examples of cyclical industries are autos, housing, basic materials, industrials, and technology. Because of its assumption of a constant growth rate, the Gordon growth model is particularly appropriate for valuing the equity of dividend-paying companies that are relatively insensitive to the business cycle and in a mature growth phase.

C. Incorrect because an automobile manufacturer is a cyclical company whose earnings are sensitive to the business cycle. Examples of cyclical industries are autos, housing, basic materials, industrials, and technology. Because of its assumption of a constant growth rate, the Gordon growth model is particularly appropriate for valuing the equity of dividend-paying companies that are relatively insensitive to the business cycle and in a

mature growth phase.