Equity

1. An investor opens a margin account with an initial deposit of $5,000. He then purchases 300 shares of a stock at $30. His margin account has a maintenance margin requirement of 30%. Ignoring commissions and interest, the price (in $) at which the investor receives a margin call is closest to:

A. 19.05.
B. 23.08.
C. 23.81.

Answer: A

Determine the stock price at which the investor receives a margin call by solving for the critical stock price, P, as: [(#of shares x P) – Margin Loan] / (# of shares x P) = % of Maintenance Margin
(300P – $4,000) / 300P = .30;
P = $4,000 / 210 = $19.05

2. An equity fund manager is considering a market index as benchmark for his portfolio and he has the following preferences:

• the index should have a contrarian “effect”;
• shares held by controlling shareholders should not be excluded;
• dividends should be included in the weighting of constituent securities; and
• the weights of constituent securities should not be arbitrarily determined by the index provider.

Which of the following weightings of indices best meets the fund manager’s preferences?

A. Equal.
B. Fundamental.
C. Float-adjusted market-capitalization.

Answer: B

Fundamental weighting satisfies the fund manager’s preferences. Fundamental indices use a single measure, such as total dividends, to weight the constituent securities. Fundamentally weighted indices 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. All shares are included in a fundamental weighted index.

3. A stop-buy order is most likely placed when a trader:

A. thinks that the stock is overvalued
B. wants to limit the loss on a long position
C. wants to limit the loss on a short position

Answer: C

Investors who have entered into a short sale will incur losses if the stock begins to increase in value.

A stop-buy order helps limit the loss on a short position because it becomes valid when the stock price rises above the specified stop price.

4. If a securities market is efficient, it is most likely that:
A. security prices would react only to the “unexpected” elements of information.
B. investors would prefer active investment strategies to passive investment strategies.
C. the time frame for price adjustment allows many traders to earn profits with little risk.

Answer: A
In an efficient market, prices should be expected to react only to the “unexpected” or “surprise” element of information releases. Investors process the unexpected information and revise expectations accordingly.

5. A financial analyst utilizing his analytical expertise and up-to-date information buys a company’s stock. His close friends, who lack information or expertise, imitate the financial analyst’s action and buy the stock. Which of the following statements concerning this behavioral bias is most accurate?
A. It improves market efficiency.
B. It is identical to representativeness.
C. It is inconsistent with rational behavior.

Answer: A
This behavioral bias is an example of an information cascade wherein the transmission of information is from those participants who act first and whose decisions influence the decisions of others. The behavior of informed traders acting first and uninformed traders imitating the informed traders is consistent with rationality. The imitation trading by the uninformed traders helps the market incorporate relevant information and improves market efficiency.

6. According to the industry life-cycle model, an industry in the shakeout stage is best characterized as experiencing:
A. slowing growth and intense competition
B. little or no growth and industry consolidation
C. relatively high barriers to entry and periodic price wars

Answer: A
The shakeout stage is usually characterized by slowing growth, intense competition, and declining profitability. During the shakeout stage, demand approaches market saturation levels because few new customers are left to enter the market. Competition is intense as growth becomes increasingly dependent on market share gains.

7. An investor wants to determine the intrinsic value of the common stock for a company with the

following characteristics:

- The firm maintains a constant dividend payout ratio
- Goodwill and patents account for 40% of the firm's assets
- The firm's revenues and earnings are highly correlated with the business cycle

Further, the investor focuses on the firm's capacity to pay dividends rather than expected dividends. Considering the above, the investor will most likely use which of the following valuation models?

A. Asset-based valuation model.
B. Free-cash-flow-to-equity model.
C. Gordon dividend growth model.

Answer: B

Free-cash-flow-to-equity (FCFE) is a measure of the firm's dividend-paying ca be reflected in the cash flow estimates rather than expected dividends. Analysts must make projections of financials to forecast future FCFE and thus the constant growth assumption as in the Gordon growth model is not an issue. An asset-based valuation model is not appropriate considering the high proportion of intangibles (goodwill and patents) in the firm's assets.

8. An analyst gathers the following data to determine the attractiveness of the company's common stock:

Dividends per share in 2002	$2
Dividends per share in 2008	$3
Expected return on the market	17%
Expected nominal risk-free return	9%
Stock's beta	1.8
Stock's market price as of 1 January 2009	$19

Using the constant growth dividend discount model, the stock's intrinsic value is closest to:

A. $12.82.
B. $18.29.
C. $19.57.

Answer: C

g = growth rate of dividends: $[(3/2)^{1/6}] - 1 = 7\%$;
Alternatively, PV = 2, FV = -3 n= 6, compute I/Y;
k = 9 + 1.8 (17 – 9) = 23.4%
V = 3(1.07) / (0.234-0.07) = 19.57

9. An analyst collects the following data on the return on equity (ROE) and the payout ratio for two companies, M and N. Using a required return of 12.4% for both companies, she computes the justified forward P/E ratios, which are also given below.

Company	Return on equity (%)	Payout ratio (%)	Justified forward P/E
M	12.0	30	7.5

N	14.0	40	10.0

If Company M increases its dividend payout ratio to 40% and Company N decreases its dividend payout ratio to 30%, which of the following will *most likely* occur? The justified P/E ratio of:

A. both companies would increase.

B. both companies would decrease.

C. Company M would increase but that of Company N would decrease.

Answer: A

Dividend growth rate = (1 – Payout ratio) × ROE;

Justified forward P/E: P_0/E_1 = payout ratio/(r – g).

Using the new payout ratios, the justified forward P/Es, calculated below, of both firms would increase.

Company M:

New dividend growth rate = (1 – 0.4) x 12% = 7.2%;

New Justified forward P/E = 0.4/(0.124 – 0.072) = 7.7x.

Company N:

New dividend growth rate = (1 – 0.3) x 14% = 9.8%;

New Justified forward P/E = 0.3/(0.124 – 0.098) = 11.5x.

10. An investor evaluating a company's common stock for investment has gathered the following data.

Earnings per share (2012)	$2.50
Dividend payout ratio (2012)	60%
Dividend growth rate expected during Years 2013 and 2014	25%
Dividend growth rate expected after Year 2014	5%
Investors' required rate of return	12%

Using the two-stage dividend discount model, the value per share of this common stock in 2012 is *closest* to:

A. $28.57.

B. $31.57.

C. $38.70

Answer: B

Dividend per share (2012) = $2.50 (0.6) = $1.50.

$V_{2012}=1.50(1.25)/1.12+1.50(1.25)^2/1.12^2+1.50(1.25)^2(1.05)/(0.12-0.05)\times 1/1.12^2$

= $1.67 + $1.87 + $28.03 = $31.57