Solution:

1. **A is correct.**

   Investors' current required return = $3.75/$50 = 7.50%

   New required return = 7.50% + 0.75% = 8.25%

   New market price = $3.75/0.0825 = $45.45

   B is incorrect. Mistake in computing new return.

   Investors' current required return = $3.75/$50 = 7.50%

   New required return = 7.50% + 0.075 = 7.575%

   New market price = $3.75/0.07575 = $49.50

   C is incorrect. It mistakenly subtracts the increase in the required return.

   New required return = 7.50% – 0.75% = 6.75%

   New market price = $3.75/0.0675 = $55.56

2. **A is correct.** Given that the intrinsic value is P0 = P0/E1 × E1 and the justified forward P/E is P0/E1 = p/(r – g), where p = payout ratio,

   Dividend growth rate = (1 – Payout ratio) × ROE = (1 – 0.6) × 12.5 = 5%

   Justified forward P/E = P0/E1 = 0.60/(0.10 – 0.05) = 12×, so

   Intrinsic value = 12 × $3 = $36

   B is incorrect. It switches between retention ratio and payout ratio in computations.

   Dividend growth rate = 0.6 × 12.5 = 7.5%

   P/E1 = 0.40/(0.10 – 0.075) = 16×

   Intrinsic value = Next year's EPS × P/E1 = $3 × 16 = $48

   C is incorrect. It is the mistake of using payout ratio for computing growth rate.

   Dividend growth rate = Payout ratio × ROE = 0.6 × 12.5 = 7.5%

   P/E1 = p/(r – g) = 0.60/(0.10 – 0.075) = 24×

   Intrinsic value = Next year's EPS × P/E1 = $3 × 24 = $72

3. **C is correct.** The justified forward P/E approach offers the advantage of incorporating fundamentals and presenting intrinsic value estimations.

   A is incorrect. The three-stage DDM model is appropriate to young companies entering the growth phase but not those entering the maturity phase. For such companies, the two-stage DDM model is appropriate.

   B is incorrect. In the case of companies that carry significant intangibles, the use of forward looking cash flow models is more advantageous than the asset-based

valuation models.

4. **B is correct.** V0 = D1/(r – g); First estimate the two growth rates.

   1 Compound annual dividend growth rate over the period 2006–2011 =

   1.25× (1 + g)5 = 1.92 g = 8.96% ≈ 9%

   2 Sustainable growth rate for the year 2011 using the dividend payout ratio:

   b = earnings retention rate = (1 – Dividend payout ratio)= [1 – (1.92/3.20)] = 0.40

   g = b × ROE; g = 0.40 × 12% = 4.8%

   Average of the two approaches = (9 + 4.8)/2 = 6.90%

   V0 = D1/(r – g)= (1.92 × 1.069)/(0.15 – 0.069)= 2.05/0.081 = $25.31

   A is incorrect. It uses the payout ratio instead of the retention ratio in computing sustainable growth rate: g = 0.60 × 12% = 7.2%;

   Average of the two approaches = (9 + 7.2)/2 = 8.1%;

   V0 = D1/(r – g) = $1.92(1.081)/(0.15 – 0.081) = $2.08/0.069 = $30.14

   C is incorrect. It uses D0 instead of D1.

   $1.92/(0.15 – 0.069) = $1.92/0.081 = $23.71

5. **C is correct.** First, compute the enterprise value (EV) from EBITDA × EV/EBITDA multiple.

   Next, determine market capitalization (value of equity per share) using the following expression:

   EV = Market capitalization + Market value (MV) of preferred stock + MV of debt – Cash and investments

   Market capitalization = EV – MV of preferred stock – MV of debt + Cash and investments

   Value per share = Market capitalization/Number of outstanding shares

Enterprise value = 65.8 × 6	394.8
– Value of debt	–90.0

– Value of preferred stock	–25.4
+ Cash and marketable securities	6.9
= Market capitalization, or value of equity	286.3
Value per share = 286.3/12.5	$22.90

A is incorrect. It adjusts EBITDA for tax effect.

Enterprise value = 65.8 × (1 – 0.30) × 6	276.4
– Value of debt	–90.0
– Value of preferred stock	–25.4
+ Cash and marketable securities	6.9
= Market capitalization or Value of equity	167.9
Value per share = 167.9/12.5	$13.43

B is incorrect. It ignores adjusting for cash and marketable securities.

Enterprise value = 65.8 × 6	394.8
– Value of debt	–90.0
– Value of preferred stock	–25.4
+ Cash and marketable securities	N/A
= Market capitalization or Value of equity	279.40
Value per share = 279.40/12.5	$22.35