FA Module 7 Diluted EPS for convertible debt practice exam questions

(The attached PDF file has better formatting.)

In 20XX, the corporate tax rate is 10% and a firm has net income of 3,170. Its capital structure consists of

- 610 common shares outstanding
- 6,120 (face value) of 6.40% convertible bonds, convertible into a total of 240 common shares

In 20XX, the firm pays dividends of 4.15 per common share.

Question 7.1: Net income available to common shareholders

What is the firm's net income available to common shareholders?

Answer 7.1: 3,170

(Firm has not issued preferred shares, so no deduction)

Question 7.2: Basic earnings per share

What is the firm's basic earnings per share?

Answer 7.2: 3,170 / 610 = 5.197

(net income available to common shareholders / weighted average common shares outstanding)

Question 7.3: Dividend payout ratio

What is the firm's dividend payout ratio?

Answer 7.3: 4.15 / 5.197 = 79.85%

(Dividends per share / earnings per share)

Question 7.4: Earnings retention rate

What is the firm's earnings retention rate?

Answer 7.4: 1 – 79.85% = 20.15%

(earnings retention rate = complement of dividend payout ratio)

Question 7.5: If-converted method numerator

What would net income be if the convertible debt had been converted at the beginning of the year?

Answer 7.5: 3,170 + 6,120 × 6.40% × (1 – 10%) = 3,522.51

(net income available to common shareholders + par value of convertible debt × coupon rate on convertible debt × (1 – tax rate) )

Question 7.6: If-converted method denominator

What would the weighted average common shares outstanding be if the convertible debt had been converted at the beginning of the year?

Answer 7.6: 610 + 240 = 850

(weighted average common shares outstanding + shares from convertible debt)

Question 7.7: Diluted earnings per share

What is the firm’s diluted earnings per share?

Answer 7.7: 3,522.51 / 850 = 4.144