FA Module 7 Diluted EPS for convertible preferred shares practice exam questions

(The attached PDF file has better formatting.)

In 20XX, a firm has net income of 2,170. Its capital structure consists of

- 510 common shares outstanding
- 15 convertible preferred shares outstanding, convertible into 8 common shares each

In 20XX, the firm pays dividends of 4.30 per common share and 9.00 per convertible preferred share.

Question 7.1: Net income available to common shareholders

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

Answer 7.1: 2,170 – 15 × 9 = 2,035

(net income available to common shareholders = net income minus dividends paid to preferred shareholders)

Question 7.2: Basic earnings per share

What is the firm's basic earnings per share?

Answer 7.2: 2,035 / 510 = 3.990

(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: 4.30 / 3.990 = 107.77%

(Dividends per share / earnings per share; firm paid more as shareholder dividends than it earned)

Question 7.4: Earnings retention rate

What is the firm's earnings retention rate?

Answer 7.4: 1 – 107.77% = -7.77%

(earnings retention rate = complement of dividend payout ratio)

Question 7.5: If-converted method numerator

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

Answer 7.5: 2,035 + 15 × 9.00 = 2,170

(net income available to common shareholders + preferred shares outstanding × preferred share dividend)

Question 7.6: If-converted method denominator

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

Answer 7.6: 510 + 15 × 8 = 630

(weighted average common shares outstanding + preferred shares outstanding × conversion rate)

Question 7.7: Diluted earnings per share

What is the firm's diluted earnings per share?

Answer 7.7: 2,170 / 630 = 3.444