

FA Module 8 Diluted EPS for stock options practice exam questions

covering executive stock options, basic earnings per share, Treasury stock method numerator, Treasury stock method denominator, diluted earnings per share, exercise price of stock options

(The attached PDF file has better formatting.)

In 20XX, a firm has 410 common shares outstanding and 53 executive stock options outstanding.

The average stock price during 20XX is 117, and the firm pays shareholder dividends of 4 per share. The corporate tax rate is 10%. In 20XX, the firm's

- ! Basic earnings per share = 4.2683
- ! Diluted earnings per share = 4.1447

The firm has no dilutive securities besides the executive stock options.

Question 8.1: Net income and diluted earnings per share

What is the firm's net income?

Answer 8.1: $410 \times 4.2683 = 1,750.00$

(net income = weighted average shares outstanding \times basic earnings per share)

Question 8.2: Treasury stock method numerator

What is the numerator of the diluted EPS ratio using the Treasury stock method?

Answer 8.2: 1,750

Question 8.3: Treasury stock method denominator

What is the denominator of the diluted EPS ratio using the Treasury stock method?

Answer 8.3: $1,750 / 4.1447 = 422.2260$

(denominator = numerator / diluted earnings per share)

Question 8.4: Shares added

How many shares are added by exercise of the stock options minus repurchase of shares in the Treasury stock method?

Answer 8.4: $422.23 - 410 = 12.23$

Question 8.5: Shares repurchased

How many shares are repurchased in the Treasury stock method?

Answer 8.5: $53 - 12.23 = 40.77$

(Stock options exercised – additional shares)

Question 8.6: Cash used to exercise the stock options

How much cash was used to exercise the stock options in the Treasury stock method?

Answer 8.6: $40.77 \times 117 = 4,770.09$

(average stock price \times additional shares)

Question 8.7: Exercise price of stock options

What is the exercise price of the stock options?

Answer 8.7: $4,770.09 / 53 = 90.00$

(cash used to exercise the stock options / number of stock options)