

## Question 1

1 / 1 point

When interest rates were 4.0%, Laraine Day purchased a 6% coupon paying bond. The bond had a par value of \$1,000, paid annual coupons and had 17 years until maturity.

Laraine's investment in the bond was closest to \$\_\_\_\_\_.

- A. 1,273
- B. 1,060
- C. 1,000
- D. 2,020
- E. 1,243

**Answer: E** 7th Cdn Ed, pp. 413-415 & PV Tables: pp. 48-49; 6th Cdn Ed, pp. 391-392 & PV Tables: pp. 45-46; 5th Cdn Ed, pp. 391-392 & PV Tables: pp. 45-46; 4th Cdn Ed, pp. 390-391 & PV Tables: pp. 47-48; Class Notes - IX- 6

Note that market interest rates have **fallen** since the bond was issued, so the price of the bond would have been **more than par (\$1,000)**.

**Price = PVA(Coupons) + PV(Maturity Payment)**

The coupons are a **(regular) annuity** for **17 years** and the par value will be received when the bond matures (in **17 years**).

**Price = 60 x PVA( 17 years, 4%) + 1,000 x PV(17 years, 4%)**

**= 60 x 12.166 + 1,000 x 0.513** { PVA & PV factors from PV Tables

**= 1,243**

## Question 2

0 / 1 point

Pierre Bouvier sold short 1,500 common shares of Glaxo Industries at \$42 per share when the margin requirement was 130%. He bought back the shares a few months later when the share price was \$45. During the period while Pierre was short the shares, the company paid a \$1.47 per share dividend.

Pierre used a discount broker who charged \$27 for each trade of 1,000 shares or less and \$0.03/share for each share over 1,000. Ignore taxes.

Pierre's profit (or loss) on the trade is closest to \$\_\_\_\_\_.

- A. -4,590
- B. -2,385
- C. -6,795
- D. -8,145

**Answer: C** 7th Cdn Ed, p 396; 6th Cdn Ed, p 356; 5th Cdn Ed, p 356; 4th Cdn Ed, p 354; Class Notes - VIII- C - 1-6

**Profits occur in short sales when the share is repurchased at a lower price than at which it was sold. (Buy Low, Sell High, but just change the order of the transactions).**

**When dividends are paid** on the stock, the short seller is responsible for paying those amounts to the party from whom the shares were borrowed (to put on the short sale).

**Profit = (Selling Price - Purchase Price) x # of shares - Dividends paid - Commissions**

**= (\$42 - \$45) x 1,500 sh - \$1.47 x 1,500 sh - \$90 = -\$6,795**

**Commissions = \$0.03 x 1,500 sh x 2 = \$90**

{ x 2 since commissions are charged on both the purchase and the sale

## Question 3

0 / 1 point

Julia Scott purchased 600 common shares of Abbot Laboratories at \$100 per share on margin, when the margin requirement was 30%. She sold the shares when the share price suddenly rise to \$110 a few days later.

Which of the following statements is correct?

- |     |  |
|-----|--|
| I.  | She made a profit of \$4,200 on the transaction. |
| II. | She made a 33.3% return on her investment.       |

- A. I only
- ⇒  B. II only
- C. Both I and II
- ✗  D. Neither I nor II

Answer: B 7th Cdn Ed, p 395; 6th Cdn Ed, p 355; 5th Cdn Ed, p 355; 4th Cdn Ed, p 353; Class Notes - VIII- C - 1-6

I.	False	Profit = 600 sh x (\$110 - \$100) = \$6,000
II.	True	The margin requirement represents her equity investment
		Funds invested: 600 sh x \$100 x 0.30 = \$18,000
		% Return = Profit/Funds Investment x 100 = \$6,000/\$18,000 x 100 = 33.33%
		Had margin not been used, the gain would have been the same, but the investment would have been larger, i.e., 600 sh x \$100/sh = \$60,000
		In that case the percentage return would have been only \$6,000/60,000 x 100 = 10%
		Her percentage return is magnified since she only put up 30% of the purchase price for the shares, but participated in 100% of the profit.
		That is, 10% x 100/30 = 33.3%
		Although margin trading magnifies potential gains when share prices rise, it also magnifies losses if share prices fall.

## Question 4

1 / 1 point

Pamela Patterson purchased a \$1,000 par value bond for \$1,400. The bond had 16 years until maturity and paid an annual coupon of 12.0%.

At the time of purchase, the yield to maturity (YTM) on Pamela's bond was closest to:

- ✓  A. 7.92%.
- B. 37.00%.
- C. 8.57%.
- D. 12.00%.

Answer: A 7th Cdn Ed, p 429-430; 6th Cdn Ed, p 383-384;  
5th Cdn Ed, p 383-384; 4th Cdn Ed, p 382-383; Class Notes - VIII- C - 1-6

Note that since the bond is trading *above par* (\$1,000), the yield to maturity (YTM) must be *lower than* the coupon rate.

The *coupon yield* is 12.0%; the *current yield* is  $120/1,400 \times 100 = 8.57\%$

The YTM can be calculated using time value tables (trial and error) or with a financial calculator. The approximation formula on p382 can also be used.

$$\text{YTM} = \frac{\text{Annual Coupon} + \text{Average Annual Capital Gain}}{\text{Average investment}} \times 100$$

$$= \frac{120 + (1,000 - 1,400)/16}{(1,000 + 1,400)/2} \times 100 = 7.92\%$$

With a financial calculator, the answer is *7.59%*; *lower than the coupon rate*

Question 5

Which of the following statements is correct?

I.	An organized exchange is not required to trade common shares.
II.	Common shares of a company may be listed and traded on more than one organized exchange.

- A. I only
- B. II only
- C. Both I and II

Question 6 0 / 1 point

On the first of every month, Marty purchased \$3,500 worth of Calico Chemical Mutual Fund units at prices indicated in the table below.

Date	Price per Unit
January 1st	\$60
February 1st	\$69
March 1st	\$55
April 1st	\$69

On April 15th, he sold all of his shares at \$77 each.

The profit (loss) that Marty had on these investments was closest to \$ \_\_\_\_\_. Assume that partial units can be purchased (to 2 decimal places).

- A. 1,623
- B. 25,996
- C. 3,967
- D. 3,203

Answer: D 7th Cdn Ed, p 394; 6th Cdn Ed, p 354; 5th Cdn Ed, p 354; 4th Cdn Ed, p 352.

This technique of buying the same dollar amount of a security at regular intervals is known as "dollar cost averaging".

Date	Price per Unit	Units Acquired
January 1st	\$60	58.33
February 1st	\$69	50.72
March 1st	\$55	63.64
April 1st	\$69	50.72
Total Shares Acquired		223.41
Average Cost	\$14,000/223.41	\$62.67/share
Profit	223.41 sh x (\$77 - \$62.67)	\$3,202.57
Alternatively	223.41 sh x \$77 - \$14,000	\$3,202.57

Question 1 1 / 1 point

Which of the following statements is correct?

I.	A pre-emptive right in a corporate charter allows bondholders to acquire any new bond offerings issued by the corporation before they are issued to the general public.
II.	Corporations are required by law to distribute annual and quarterly reports to shareholders.

- A. I only
- B. II only