## 1.02 The Time Value of Money in Finance

**Question 1**
A government issues a 20-year zero-coupon bond with a YTM of −0.02%. Five years later, economic conditions have improved, and the YTM is now 0.50%. Assuming annual compounding, the current price of the bond per 100 of par value is *closest* to:
A. 92.7917
B. 97.5371
C. 100.3005

**Question 2**
Three years ago, a government issued a 20-year zero coupon bond when the YTM was 4.5%. If this zero-coupon bond is now trading at 46.1778 per 100 of par value, then the market discount rate, assuming annual compounding, on this bond is *closest* to:
A. 3.94%
B. 4.60%
C. 4.65%

**Question 3**
A company's most recent annual dividend is CAD 4 per share. The dividends will grow 5% each year for the next three years and 2% each year thereafter indefinitely. The required rate of return is 8%. Based on a two-stage dividend discount model, the present value of each share (in CAD) is *closest* to:
A. 69.21
B. 73.84
C. 77.84

**Question 4**
An annual coupon bond is currently trading at 98.50 per 100 of par value, with 9 years remaining to maturity. The current YTM is 9.00%. If the bond was issued exactly one year ago when the YTM was 8.90%, then the bond's price at issuance (per 100 of par) was *closest* to:
A. 98.40
B. 99.03
C. 99.10