1. Correct answer: A.

Matrix pricing is used in underwriting new bonds to get an estimate of the required yield spread over the benchmark rate. The benchmark rate is typically the yield-to-maturity on a government bond having the same, or close to the same, time-to-maturity. The spread is the difference between the yield-to-maturity on the new bond and the benchmark rate. The yield spread is the additional compensation required by investors for the difference in the credit risk, liquidity risk, and tax status of the bond relative to the government bond.

2. Correct answer: B.

Yield to maturity does consider reinvestment income; however, it assumes that the coupon payments can be reinvested at an interest rate equal to the yield to maturity. This is one of the limitations for the yield to maturity measure because the investor is facing reinvestment risk (future interest rates will be less than the yield to maturity at the time the bond is purchased).

3. Correct answer: C.

Note that the four cash flows are, in percent of par terms, 5, 5, 5, and 105. Adjust the spot rates for semiannual compounding. Solve $(5 / 1.03) + (5 / (1.0375)^2) + (5 / (1.045)^3) + (105 / (1.05)^4) = 100.2648$ percent of par. As par is $1,000,000, the correct answer is $1,002,648.

4. Correct answer: B.

A spot rate is defined as the yield to maturity on a zero-coupon bond maturing at the date of that cash flow.

5. Correct answer: B.

The bond would sell below par or at a discount if the yield required by the market rises above the coupon rate. Because the bond initially was purchased at par, the coupon rate equals the yield required by the market. Subsequently, if yields rise above the coupon, the bond's market price would fall below par.