

## FIN 534 Week 4 quiz 3

### Question 1

Which of the following statements is CORRECT?

Correct Answer: Time lines are useful for visualizing complex problems prior to doing actual calculations.

### Question 2

Which of the following statements regarding a 30-year monthly payment amortized mortgage with a nominal interest rate of 10% is CORRECT?

Correct Answer: A larger proportion of the first monthly payment will be interest, and a smaller proportion will be principal, than for the last monthly payment.

### Question 3

A U.S. Treasury bond will pay a lump sum of \$1,000 exactly 3 years from today. The nominal interest rate is 6%, semiannual compounding. Which of the following statements is CORRECT?

Correct Answer: The PV of the \$1,000 lump sum has a smaller present value than the PV of a 3-year, \$333.33 ordinary annuity.

### Question 4

You plan to analyze the value of a potential investment by calculating the sum of the present values of its expected cash flows. Which of the following would increase the calculated value of the investment?

Correct Answer: The discount rate decreases.

#### ‡ [Question 5](#)

You are considering two equally risky annuities, each of which pays \$5,000 per year for 10 years. Investment ORD is an ordinary (or deferred) annuity, while Investment DUE is an annuity due. Which of the following statements is CORRECT?

Correct Answer: A rational investor would be willing to pay more for DUE than for ORD, so their market prices should differ.

#### ‡ [Question 6](#)

Which of the following statements regarding a 30-year monthly payment amortized mortgage with a nominal interest rate of 10% is CORRECT?

Correct Answer: A smaller proportion of the last monthly payment will be interest, and a larger proportion will be principal, than for the first monthly payment.

#### ‡ [Question 7](#)

A \$150,000 loan is to be amortized over 7 years, with annual end-of-year payments. Which of these statements is CORRECT?

Answer

Correct Answer: The proportion of each payment that represents interest versus repayment of principal would be higher if the interest rate were higher.

#### ‡ [Question 8](#)

Which of the following statements is CORRECT?

Correct Answer: Time lines can be constructed where some of the payments constitute an annuity but others are unequal and thus are not part of the annuity.

‡ [Question 9](#)

Which of the following investments would have the highest future value at the end of 10 years? Assume that the effective annual rate for all investments is the same and is greater than zero.  
Answer

Correct Answer: Investment A pays \$250 at the beginning of every year for the next 10 years (a total of 10 payments).

‡ [Question 10](#)

Which of the following statements is CORRECT?

Correct Answer: The present value of a 3-year, \$150 annuity due will exceed the present value of a 3-year, \$150 ordinary annuity.

‡ [Question 11](#)

Which of the following statements regarding a 15-year (180-month) \$125,000, fixed-rate mortgage is CORRECT? (Ignore taxes and transactions costs.)

Correct Answer: The outstanding balance declines at a faster rate in the later years of the loan's life.

‡ [Question 12](#)