**Time Value of Money - Finance**



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| |  |  | | --- | --- | | |  | | --- | | **1.** (TCO 3) You have been approved for a $70,000 loan toward the purchase of a new home at 12% interest. The mortgage is for 30 years. How much are the approximately annual payments of the loan? Hint: Assume you pay yearly. (Points : 3) |   $2613        $8690        $5740        None of the above |      |  |  | | --- | --- | | |  | | --- | | **2.** (TCO 3) First Choice Bank pays 9% APR compounded quarterly on its business loans. National Emerald Bank pays 13% APR compounded monthly. The EAR for First Choice and National Emerald Bank are: (Points : 3) |   9.31% and 13.80%, respectively        9% and 13.80%, respectively        9.31% and 13.50%, respectively        9% and 13.50%, respectively |      |  |  | | --- | --- | | |  | | --- | | **3.** (TCO 3) LED Computer Electronics is considering an investment that will have cash flows of $5,000, $6,000, $7,000 and $10,000 for years 1 through 4. What is the approximate value of this investment today if the appropriate discount rate is 9% per year? (Points : 3) |   $22,250        $30,520        $22,120        None of the above |      |  |  | | --- | --- | | |  | | --- | | **4.** (TCO 3) You deposited $8,000 in your bank account today. An increase in which of the following will increase the future value of your deposit assuming that all interest is reinvested? Assume the interest rate is a positive value. Select all answers that apply: (Points : 4) |   interest rate          initial amount of your deposit          frequency of the interest payments          None of the above will increase the value of the investment |      |  |  | | --- | --- | | |  | | --- | | **5.** (TCO 3) If you borrow $50,000 today at 10% interest for eight years. How much of your first payment will be applied towards the principal of the loan? (Points : 3) |   $5,000        $4,372        $4,790        zero, all will be applied towards the interest |      |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  | | --- | | **6.** (TCO 3) Match the following terms with the examples as appropriate: (Points : 4) |  |  | | --- | | Potential Matches: | | 1 : is usually a pure discount loan issued by the US government. | | 2 : Corporate bonds are usually issued as this form of loans. | | 3 : You borrow $3,000 from your bank at 10% interest. You will make no payments for two months but will return the full amount plus interest at the end of three months. | | 4 : obtained a 5-year loan from your bank to buy a new machine. You will pay $500 per month to cover both interest and principal. |  |  | | --- | | Answer | | : Amortized Loan | | : Interest-only Loan | | : Treasury Bill | | : Pure Discount Loan | |      |  |  | | --- | --- | | |  | | --- | | **7.** (TCO 3) You are interested in saving to buy a new machine that costs $387,120. You can deposit $32,805 in your bank today. If your bank pays 14% annual interest on its accounts, how long will it take you to save for the new machine? (Points : 4) |   about 19 years        about 5 years        about 12 years        Can not be determined |      |  | | --- | | **8.** (TCO 3) How can we apply the concept of time value of money in evaluating a mortgage? (Points : 6) | |

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