P10A-8A Calculating and recording bonds when stated rate and market rate are different [30–40 min]

On December 31, 2010, when the market interest rate is 8%, Timmony Realty Co. issues $200,000 of 5.25%, 10-year bonds payable. The bonds pay interest semiannually.

Requirements

1. Determine the present value of the bonds at issuance.
2. Assume that the bonds are issued at the price computed in requirement 1. Prepare an effective-interest method amortization table for the first two semiannual interestinstallments.
3. Using the amortization table prepared in requirement 2, journalize issuance of the bonds and the first two interest payments.

Problems (Group B)

P10A-9B Calculating present value [15–25 min]

Axel needs new manufacturing equipment. Two companies can provide similar equipment but under different payment plans:

Plan A: MRE offers to let Axel pay $55,000 each year for five years. The payments include interest at 12% per year.

Plan B: Westernhome will let Axel make a single payment of $425,000 at the end of five years. This payment includes both principal and interest at 12%.

Requirements

1. Calculate the present value of Plan A.
2. Calculate the present value of Plan B.
3. Axel will purchase the equipment that costs the least, as measured by present value. Which equipment should Axel select? Why? (Challenge)

P10A-10B Calculating the value of bonds when stated rate and market rate are different [40–50 min]

Interest rates determine the present value of future amounts.

Requirements

1. Determine the present value of ten-year bonds payable with maturity value of $84,000 and stated interest rate of 14%, paid semiannually. The market rate of interest is 14% at issuance.
2. Same bonds payable as in requirement 1, but the market interest rate is 16%.
3. Same bonds payable as in requirement 1, but the market interest rate is 8%.

Note: Problem 10A-10B must be completed before attempting Problem 10A-11B.

P10A-11B Journalizing bond transactions [20–30 min]

Consider your answers from requirements 1–3 of Problem 10A-10B.

Requirement

1. Journalize issuance of the bond and the first semiannual interest payment under each of the 3 assumptions in Problem 10A-10B. The company amortizes bond premium and discount by the effective-interest method. Explanations are not required.