3 March 2018 – Week 9 (Bonds)

Asher Corporation issued $550,000 of 7% coupon rate 10-year bonds. The bonds are dated and sold on January 1, 20X1. Interest payment dates are January 1 and July 1. The bonds were issued for $512,408 at a yield of 8%. Use the effective-interest method for the following question.

1. What is the amount of interest expense that McCabe Corporation will record on July 1, 20X1, the first semi-annual interest payment date? (All amounts rounded to the nearest dollar.) a. $20,496 c. $19,250 b. $38,500 d. $22,000

Answer: A ($512,408 X 0.08 X 6/12 = $20,496)

1. What is the amount of discount amortization that McCabe Corporation will record on July 1, 20X1, the first semi-annual interest payment date?  a. $0 c. $1,246  b. $2,562 d. $1,504

Answer: C [Int. exp. = $20,496 ($512,408 X 0.08 X 6/12) Int. payment = $19,250 ($550,000 x 0.07 x 6/12) $20,496 - $19,250 = $1,246]

1. What is the total cash payment for interest for each 12-month period? (All amounts rounded to the nearest dollar.) a. $22,000 c. $40,993 b. $38,500 d. $44,000

Answer: B ($550,000 X 0.07 =$38,500)

1. What is the total interest expense for the year ended December 31, 20X1? a. $19,250 c. $40,942 b. $38,500 d. $41,042

Answer: D ($20,496 + $20,546 =$41,042)

1. What is the carrying amount of the bonds on the January 1, 20X2 balance sheet? a. $514,950 c. $512,408 b. $513,654 d. $516,167

Answer: A

Carry at start: 512,408  
Carry after first coupon: 512,408 + 1,246 = 513,654  
Carry after second coupon: 513,654 + 1,296 = 514,950

1. A company issues $400,000 of 8% bonds, which mature in 10 years, at par on January 1, 2011. The bonds pay interest semiannually on each June 30 and December 31. What entry should be made on December 31, 2009?  
   a. Debit Interest Expense $32,000; Credit Interest Payable $32,000.  
   b. Debit Interest Expense $32,000; Credit Cash $32,000.  
   c. Debit Interest Expense $16,000; Credit Interest Payable $16,000.  
   d. Debit Interest Expense $16,000; Credit Cash $16,000.  
   e. None of the above.

Answer: D   
Explanation: Debit Interest Expense $16,000; Credit Cash $16,000.  
Feedback: A semiannual interest payment must be made on December 31, 2009. The following entry will be recorded: debit Interest Expense for $16,000 (or $400,000 x .08 x 6/12) and credit Cash for $16,000.

1. Which of the following statements are not correct regarding bonds sold at a discount?  
   A) The carrying amount gets larger each year.  
   B) The Discount on Bonds Payable account gets smaller each year.  
   C) At maturity, the face value and carrying value will be equal.  
   D) The balance of Bonds Payable account will get larger each year.  
   E) At maturity, the balance of the Discount on Bonds Payable will be zero.

Answer: D  
Explanation: When bonds are sold at a discount, the carrying amount (which equals the par value less the unamortized discount) gets larger each year. The Discount on Bonds Payable account is reduced to zero over the life of the bonds; as such, the account balance gets smaller (rather than larger) each year and, at maturity, the face (or par) value and the carrying value will be equal.

1. If $500,000 of 2-year, 8% bonds that pay interest semiannually are sold with a yield of 12%, which of the following lines describes the calculation of the selling price of the bonds?   
   A) (0.7921 x $500,000) + (3.4651 x $30,000) = bond selling price  
   B) (0.7972 x $500,000) + (3.3121 x $30,000) = bond selling price  
   C) (0.7972 x $500,000) + (3.4651 x $50,000) = bond selling price  
   D) (0.8900 x $500,000) + (1.8334 x $50,000) = bond selling price  
   E) (0.7921 x $500,000) + (3.4651 x $20,000) = bond selling price

Answer: E  
Explanation: Since interest is paid semiannually, i = 6% (or the market rate of 12% divided by 2) and n, the number of interest periods, equals 4 (or 2 times per year multiplied by the 2 year-life); i = 6% and n = 4 are used to determine the present value factors. The present value of $1 table is used to compute the present value the par value of the bond. The present value of an annuity of $1 table is used to compute the present value the series of semiannual interest payments. The selling price of the bonds equals (1) the present value of the bonds' par value (determined by multiplying the par value of $500,000 by the related present value of $1 factor of 0.7921) plus the present value of the semiannual interest payments (determined by multiplying the semiannual payments of $20,000 (or $500,000 multiplied by the contract rate of 8% multiplied by 1/2 year) by the present value of an annuity of $1 factor of 3.4651).