## CHAPTER 15

## LONG-TERM LIABILITIES

SUMMARY OF QUESTIONS BY LEARNING OBJECTIVES AND BLOOM'S TAXONOMY

| Item | LO | BT | Item | LO | BT | Item | LO | BT | Item | LO | BT | Item | LO | BT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| True-False Statements |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. | 1 | K | 9. | 1 | K | 17. | 2 | C | 25. | 4 | K | ${ }^{\text {s9 }} 33$. | 2 | K |
| 2. | 1 | K | 10. | 2 | C | 18. | 2 | AP | 26. | 4 | K | ${ }^{\text {s9 }} 34$. | 2 | K |
| 3. | 1 | K | 11. | 2 | C | 19. | 2 | C | 27. | 5 | K | ${ }^{\text {s9 }} 35$. | 3 | K |
| 4. | 1 | K | 12. | 2 | K | 20. | 2 | K | 28. | 6 | K | ${ }^{\text {s9}} 36$. | 5 | K |
| 5. | 1 | K | 13. | 2 | C | 21. | 3 | K | ${ }^{2} 29$. | 7 | K | ${ }^{\text {s9}} 37$. | 5 | K |
| 6. | 1 | C | 14. | 2 | C | 22. | 3 | C | ${ }^{\text {a }} 30$. | 8 | K | ${ }^{\text {s9}} 38$. | 6 | K |
| 7. | 1 | C | 15. | 2 | C | 23. | 3 | K | s931. |  | K |  |  |  |
| 8. | 1 | K | 16. | 2 | C | 24. | 3 | K | s932. | 1 | K |  |  |  |
| Multiple Choice Questions |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 39. | , | K | 66. | 2 | K | 93. | 3 | C | ${ }^{\text {a } 120 . ~}$ | 7 | K | ${ }^{\text {a } 147 .}$ | 9 | AP |
| 40. | 1 | C | 67. | 2 | C | 94. | 3 | C | ${ }^{\text {a } 121 .}$ | 7 | C | ${ }^{2} 148$. | 9 | AP |
| 41. | 1 | AP | 68. | 2 | AP | 95. | 3 | C | ${ }^{\text {a }} 122$. | 8,9 | C | ${ }^{1} 149$. | 9 | AP |
| 42. | 1 | K | 69. | 2 | C | 96. | 3 | AP | ${ }^{\text {a }} 123$. | 8 | AP | ${ }^{1} 150$. | 9 | AP |
| 43. | 1 | K | 70. | 2 | C | 97. | 3 | AP | ${ }^{\text {a }} 124$. | 8 | K | ${ }^{\text {a }} 151$. | 9 | C |
| 44. | 1 | C | 71. | 2 | C | 98. | 3 | AP | ${ }^{\text {a } 125 .}$ | 8 | C | ${ }^{1} 152$. | 9 | C |
| 45. | 1 | K | 72. | 2 | AP | 99. | 4 | K | ${ }^{\text {a } 126 . ~}$ | 8 | C | ${ }^{\text {a }} 153$. | 9 | C |
| 46. | 1 | K | 73. | 2 | K | 100. | 4 | K | ${ }^{\text {a } 127 .}$ | 8 | AP | ${ }^{\text {st1} 154 . ~}$ | 1 | K |
| 47. | 1 | K | 74. | 2 | C | 101. | 4 | C | a128. | 8 | AP | ${ }^{\text {s9 }} 155$. | 2 | AP |
| 48. | 1 | K | 75. | 2 | K | 102. | 4 | C | ${ }^{\text {a } 129 .}$ | 8 | AP | ${ }^{\text {sq }} 156$. | 2 | K |
| 49. | 1 | K | 76. | 2 | C | 103. | 4 | AP | ${ }^{\text {a }} 130$. | 8 | AP | ${ }^{\text {st}} 157$. | 3 | K |
| 50. | 1 | K | 77. | 2 | C | 104. | 4 | AP | ${ }^{\text {a } 131 .}$ | 8 | AP | ${ }^{\text {sq }} 158$. | 3 | AP |
| 51. | 1 | K | 78. | 2 | C | 105. | 4 | AP | ${ }^{\text {a }} 132$. | 8 | AP | ${ }^{\text {st}} 159$. | 4 | K |
| 52. | 1 | K | 79. | 2 | K | 106. | 4 | AP | ${ }^{\text {a } 133 .}$ | 8 | AP | ${ }^{\text {sg } 160 .}$ | 4 | K |
| 53. | 1 | K | 80. | 2 | AP | 107. | 5 | K | a134. | 8 | C | ${ }^{\text {st}} 161$. | 5 | K |
| 55. | 1 | K | 81. | 2 | C | 108. | 5 | K | ${ }^{\text {a } 135 .}$ | 9 | AP | ${ }^{\text {sq }} 162$. | 5 | AP |
| 55. | 1 | K | 82. | 2 | AP | 109. | 5 | K | ${ }^{\text {a } 136 .}$ | 9 | AP | ${ }^{\text {st} 163 .}$ | 6 | K |
| 56. | 1 | C | 83. | 2 | AP | 110. | 5 | K | ${ }^{\text {a } 137 .}$ | 9 | AP | a, ${ }^{\text {s }} 164$. | 7 | K |
| 57. | 1 | K | ${ }^{8} 84$. | 9 | AP | 111. | 5 | C | ${ }^{\text {a } 138 .}$ | 9 | AP | 165. | 10 | K |
| 58. | 1 | C | ${ }^{8} 85$. | 9 | AP | 112. | 5 | K | ${ }^{\text {a } 139 .}$ | 9 | AP | 166. | 10 | K |
| 59. | 1 | K | 86. | 3 | AP | 113. | 6 | K | ${ }^{\text {a } 140 .}$ | 9 | AP | 167. | 10 | K |
| 60. | 1 | K | 87. | 3 | AP | 114. | 6 | K | ${ }^{\text {a } 141 .}$ | 9 | AP | 168. | 10 | K |
| 61. | 1 | K | 88. | 3 | AP | 115. | 6 | K | ${ }^{\text {a } 142 .}$ | 9 | AP | 169. | 10 | K |
| 62. | 2 | C | 89. | 3 | AP | 116. | 6 | AP | ${ }^{\text {a } 143 .}$ | 9 | AP |  |  |  |
| 63. | 2 | K | 90. | 3 | AP | 117. | 6 | AP | ${ }^{\text {a } 144 .}$ | 9 | AP |  |  |  |
| 64. | 2 | AP | 91. | 3 | AP | 118. | 6 | AP | ${ }^{\text {a } 145 .}$ | 9 | AP |  |  |  |
| 65. | 2 | AP | 92. | 3 | C | 119. | 6 | AP | ${ }^{\text {a } 146 .}$ | 9 | AP |  |  |  |
| Brief Exercises |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 170. | 1 | AP | 172. | 2 | AP | 174. | 2,9 | AP | 176. | 4 | AP | ${ }^{\text {a } 178 .}$ | 8 | AP |
| 171. | 2 | AP | 173. | 2 | AP | 175. | 3 | AP | 177. | 6 | AP | a179. | 9 | AP |

sg This question also appears in the Study Guide.
st This question also appears in a self-test at the student companion website.
a This topic is dealt with in an Appendix to the chapter.

SUMMARY OF QUESTIONS BY LEARNING OBJECTIVES AND BLOOM'S TAXONOMY

| Exercises |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 180. | 1 | AP | 185. | 2 | AN | 190. | 3 | AN | 195. | 5 | AP | ${ }^{2} 200$ | 8 | AN |
| 181. | 1 | AN | 186. | 2 | AP | 191. | 4 | AP | 196. | 6 | AP | ${ }^{2} 201$ | 9 | AN |
| 182. | 1 | AN | 187. | 2,3 | AP | 192. | 4 | AP | 197. | 6 | AP | ${ }^{2} 202$ | 9 | AN |
| 183. | 1 | AN | 188. | 3 | AP | 193. | 4 | AP | 198. | 5 | AN | ${ }^{2} 203$ | 9 | AN |
| 184. | 2 | AP | 189. | 3 | AP | 194. | 5 | AP | ${ }^{\text {a } 199 .}$ | 7 | AP | ${ }^{2} 204$ | 9 | AN |
| Completion Statements |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 205. | 1 | K | 208. | 2 | K | 211. | 2 | AP | ${ }^{\text {a } 214 .}$ | 7 | K | ${ }^{\text {a } 217 . ~}$ | 9 | K |
| 206. | 1 | K | 209. | 2 | AP | 212. | 3 | K | ${ }^{2} 215$. | 8 | K |  |  |  |
| 207. | 1 | K | 210. | 2 | K | 213. | 5 | K | ${ }^{2} 216$. | 9 | K |  |  |  |
| Matching |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 218. | 5 | N/A |  |  |  |  |  |  |  |  |  |  |  |  |
| Short-Answer Essay |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 219. | 2 | N/A | 221. | 2 | N/A | ${ }^{2} 223$. | 7 | N/A | 225. | 5 | N/A |  |  |  |
| 220. | 5 | N/A | 222. | 3 | N/A | ${ }^{2} 224$. | 8 | N/A | 226. | 2 | N/A |  |  |  |

sg This question also appears in the Study Guide.
st This question also appears in a self-test at the student companion website.
a This topic is dealt with in an Appendix to the chapter.
SUMMARY OF LEARNING OBJECTIVES BY QUESTION TYPE

| Item | Type | Item | Type | Item | Type | Item | Type | Item | Type | Item | Type | Item | Type |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Learning Objective 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. | TF | 9. | TF | 44. | MC | 52. | MC | 60. | MC | 182. | Ex |  |  |
| 2. | TF | 31. | TF | 45. | MC | 53. | MC | 61. | MC | 183. | Ex |  |  |
| 3. | TF | 32. | TF | 46. | MC | 54. | MC | 63. | MC | 205. | C |  |  |
| 4. | TF | 39. | MC | 47. | MC | 55. | MC | 64. | MC | 207. | C |  |  |
| 5. | TF | 40. | MC | 48. | MC | 56. | MC | 154. | MC | 218. | MA |  |  |
| 6. | TF | 41. | MC | 49. | MC | 57. | MC | 170. | BE |  |  |  |  |
| 7. | TF | 42. | MC | 50. | MC | 58. | MC | 180. | Ex |  |  |  |  |
| 8. | TF | 43. | MC | 51. | MC | 59. | MC | 181. | Ex |  |  |  |  |
| Learning Objective 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10. | TF | 18. | TF | 65. | MC | 73. | MC | 81. | MC | 174. | BE | 211. | C |
| 11. | TF | 19. | TF | 66. | MC | 74. | MC | 82. | MC | 184. | Ex | 218. | Ma |
| 12. | TF | 20. | TF | 67. | MC | 75. | MC | 83. | MC | 185. | Ex | 219. | S-A |
| 13. | TF | 33. | TF | 68. | MC | 76. | MC | 155. | MC | 186. | Ex | 221. | S-A |
| 14. | TF | 34. | TF | 69. | MC | 77. | MC | 156. | MC | 187. | Ex | 226. | S-A |
| 15. | TF | 62. | MC | 70. | MC | 78. | MC | 171. | BE | 208. | C |  |  |
| 16. | TF | 63. | MC | 71. | MC | 79. | MC | 172. | BE | 209. | C |  |  |
| 17. | TF | 64. | MC | 72. | MC | 80. | MC | 173. | BE | 210. | C |  |  |
| Learning Objective 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 21. | TF | 35. | TF | 89. | MC | 93. | MC | 97. | MC | 175. | BE | 190. | Ex |
| 22. | TF | 86. | MC | 90. | MC | 94. | MC | 98. | MC | 187. | Ex | 212. | C |
| 23. | TF | 87. | MC | 91. | MC | 95. | MC | 157. | MC | 188. | Ex | 222. | S-A |
| 24. | TF | 88. | MC | 92. | MC | 96. | MC | 158. | MC | 189. | Ex |  |  |

Note: TF = True-False $\quad$ BE $=$ Brief Exercise $\quad C=$ Completion

MC = Multiple Choice $\quad$ Ex $=$ Exercise $\quad$ S-A $=$ Short-Answer
SUMMARY OF LEARNING OBJECTIVES BY QUESTION TYPE


Note: TF = True-False
MC = Multiple Choice
$B E=$ Brief Exercise
Ex = Exercise
$C=$ Completion
S-A = Short-Answer

## CHAPTER LEARNING OBJECTIVES

1. Explain why bonds are issued. Companies may sell bonds to investors to raise long-term capital. Bonds offer the following advantages over common stock: (a) stockholder control is not affected, (b) tax savings result, (c) earnings per share of common stock may be higher.
2. Prepare the entries for the issuance of bonds and interest expense. When companies issue bonds, they debit Cash for the cash proceeds, and credit Bonds Payable for the face value of the bonds. The account Premium on Bonds Payable shows the bond premium; Discount on Bonds Payable shows a bond discount.
3. Describe the entries when bonds are redeemed or converted. When bondholders redeem bonds at maturity, the issuing company credits Cash and debits Bonds Payable for the face value of the bonds. When bonds are redeemed before maturity, the issuing company (a) eliminates the carrying value of the bonds at the redemption date, (b) records the cash paid, and (c) recognizes the gain or loss on redemption. When bonds are converted to common stock, the issuing company transfers the carrying (or book) value of the bonds to appropriate paid-in capital accounts. No gain or loss is recognized.
4. Describe the accounting for long-term notes payable. Each payment consists of (1) interest on the unpaid balance of the loan and (2) a reduction of loan principal. The interest decreases each period, while the portion applied to the loan principal increases.
5. Contrast the accounting for operating and capital leases. For an operating lease, the lessee (renter) records lease (rental) payments as an expense. For a capital lease, the lessee records the asset and related obligation at the present value of the future lease payments.
6. Identify the methods for the presentation and analysis of long-term liabilities. Companies should report the nature and amount of each long-term debt in the balance sheet or in the notes accompanying the financial statements. Stockholders and long-term creditors are interested in a company's long-run solvency. Debt to assets and times interest earned are two ratios that provide information about debt-paying ability and long-run solvency.
${ }^{\text {a }}$ 7. Compute the market price of a bond. Time value of money concepts are useful for pricing bonds. The present value (or market price) of a bond is a function of three variables: (1) the payment amounts, (2) the length of time until the amounts are paid, and (3) the interest rate.
a8. Apply the effective-interest method of amortizing bond discount and bond premium. The effective-interest method results in varying amounts of amortization and interest expense per period but a constant percentage rate of interest. When the difference between the straight-line and effective-interest method is material, GAAP requires the use of the effective-interest method.
a9. Apply the straight-line method of amortizing bond discount and bond premium. The straight-line method of amortization results in a constant amount of amortization and interest expense per period.

## TRUE-FALSE STATEMENTS

1. Each bondholder may vote for the board of directors in proportion to the number of bonds held.

Ans: F, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
2. Bond interest paid by a corporation is an expense, whereas dividends paid are not an expense of the corporation.

Ans: T, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
3. Registered bonds are bonds that are delivered to owners by U.S. registered mail service.

Ans: F, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
4. A debenture bond is an unsecured bond which is issued against the general credit of the borrower.

Ans: T, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
5. Bonds are a form of interest-bearing notes payable.

Ans: T, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
6. Neither corporate bond interest nor dividends are deductible for tax purposes.

Ans: F, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
7. A $10 \%$ stock dividend is the equivalent of a $\$ 1,000$ par value bond paying annual interest of $10 \%$.

Ans: F, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: Business Economics
8. The holder of a convertible bond can convert an interest payment received into a cash dividend paid on common stock if the dividend is greater than the interest payment.

Ans: F, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: None, AICPA PC: None, IMA: Business Economics
9. The board of directors may authorize more bonds than are issued.

Ans: T, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: FSA
10. The contractual interest rate is always equal to the market interest rate on the date that bonds are issued.

Ans: F, LO: 2, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
11. If $\$ 150,000$ face value bonds are issued at 103 , the proceeds received will be $\$ 103,000$.

Ans: F, LO: 2, Bloom: C, Difficulty: Easy, Min: 1, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: Business Economics
12. Discount on bonds is an additional cost of borrowing and should be recorded as interest expense over the life of the bonds.

Ans: T, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: Business Economics
13. If a corporation issued bonds at an amount less than face value, it indicates that the corporation has a weak credit rating.

Ans: F, LO: 2, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics

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14. A corporation that issues bonds at a discount will recognize interest expense at a rate which is greater than the market interest rate.

Ans: F, LO: 2, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
15. If bonds are issued at a discount, the issuing corporation will pay a principal amount less than the face amount of the bonds on the maturity date.

Ans: F, LO: 2, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
16. If bonds are issued at a premium, the carrying value of the bonds will be greater than the face value of the bonds for all periods prior to the bond maturity date.

Ans: T, LO: 2, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
17. If the market interest rate is greater than the contractual interest rate, bonds will sell at a discount.

Ans: T, LO: 2, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
18. If $\$ 800,000,6 \%$ bonds are issued on January 1, and pay interest semiannually, the amount of interest paid on July 1 will be $\$ 24,000$.

Ans: T, LO: 2, Bloom: AP, Difficulty: Easy, Min: 1, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA
19. If bonds sell at a premium, the interest expense recognized each year will be greater than the contractual interest rate.

Ans: F, LO: 2, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
20. The carrying value of bonds is calculated by adding the balance of the Discount on Bonds Payable account to the balance in the Bonds Payable account.

Ans: F, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
21. The loss on bond redemption is the difference between the cash paid and the carrying value of the bonds.

Ans: T, LO: 3, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
22. If $\$ 500,000$ par value bonds with a carrying value of $\$ 476,000$ are redeemed at 97 , a loss on redemption will be recorded.

Ans: T, LO: 3, Bloom: C, Difficulty: Easy, Min: 1, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting
23. Gains and losses are not recognized when convertible bonds are converted into common stock.

Ans: T, LO: 3, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
24. Generally, convertible bonds do not pay interest.

Ans: F, LO: 3, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics
25. Each payment on a mortgage note payable consists of interest on the original balance of the loan and a reduction of the loan principal.

Ans: F, LO: 4, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
26. A long-term note that pledges title to specific property as security for a loan is known as a mortgage payable.

Ans: T, LO: 4, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics
27. A capital lease requires the lessee to record the lease as a purchase of an asset.

Ans: T, LO: 5, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
28. The times interest earned is computed by dividing net income by interest expense.

Ans: F, LO: 6, Bloom: K, Difficulty: Easy, Min: 1, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
${ }^{\text {a }} 29$. The present value of a bond is a function of two variables: (1) the payment amounts and (2) the interest (discount) rate.

Ans: F, LO: 7, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
${ }^{\text {a }} 30$. The effective-interest method of amortization results in varying amounts of amortization and interest expense per period but a constant interest rate.

Ans: T, LO: 8, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics
31. Bonds that mature at a single specified future date are called term bonds.

Ans: T, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
32. The terms of the bond issue are set forth in a formal legal document called a bond indenture.

Ans: T, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
33. The carrying value of bonds at maturity should be equal to the face value of the bonds.

Ans: T, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
34. Premium on Bonds Payable is a contra account to Bonds Payable.

Ans: F, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
35. When bonds are converted into common stock, the carrying value of the bonds is transferred to paid-in capital accounts.

Ans: T, LO: 3, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
36. Operating leases are leases that the lessee must capitalize on its balance sheet as an asset.

Ans: F, LO: 5, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
37. Under a capital lease, the lease/asset is reported on the balance sheet under plant assets.

Ans: T, LO: 5, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
38. Long-term liabilities are reported in a separate section of the balance sheet immediately following current liabilities.

Ans: T, LO: 6, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting

Answers to True-False Statements

| Item | Ans. | Item | Ans. | Item | Ans. | Item | Ans. | Item | Ans. | Item | Ans. | Item | Ans. |
| ---: | :---: | ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | F | 7. | F | 13. | F | 19. | F | 25. | F | 31. | T | 37. | T |
| 2. | T | 8. | F | 14. | F | 20. | F | 26. | T | 32. | T | 38. | T |
| 3. | F | 9. | T | 15. | F | 21. | T | 27. | T | 33. | T |  |  |
| 4. | T | 10. | F | 16. | T | 22. | T | 28. | F | 34. | F |  |  |
| 5. | T | 11. | F | 17. | T | 23. | T | a29. | F | 35. | T |  |  |
| 6. | F | 12. | T | 18. | T | 24. | F | a 30. | T | 36. | F |  |  |

## MULTIPLE CHOICE QUESTIONS

39. Each of the following is correct regarding bonds except they are
a. a form of interest-bearing notes payable.
b. attractive to many investors.
c. issued by corporations and governmental agencies.
d. sold in large denominations.

Ans: d, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
40. From the standpoint of the issuing company, a disadvantage of using bonds as a means of long-term financing is that
a. bond interest is deductible for tax purposes.
b. interest must be paid on a periodic basis regardless of earnings.
c. income to stockholders may increase as a result of trading on the equity.
d. the bondholders do not have voting rights.

Ans: b, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics
41. If a corporation issued $\$ 3,000,000$ in bonds which pay $5 \%$ annual interest, what is the annual net cash cost of this borrowing if the income tax rate is $30 \%$ ?
a. $\$ 3,000,000$
b. $\$ 45,000$
c. $\$ 150,000$
d. $\$ 105,000$

Ans: d, LO: 1, Bloom: AP, Difficulty: Medium, Min: 2, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $\$ 3,000,000 \times 0.05 \times(1-.30)=\$ 105,000$
42. Secured bonds are bonds that
a. are in the possession of a bank.
b. are registered in the name of the owner.
c. have specific assets of the issuer pledged as collateral.
d. have detachable interest coupons.

Ans: c, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
43. A legal document which summarizes the rights and privileges of bondholders as well as the obligations and commitments of the issuing company is called
a. a bond indenture.
b. a bond debenture.
c. trading on the equity.
d. a term bond.
44. Stockholders of a company may be reluctant to finance expansion through issuing more equity because
a. leveraging with debt is always a better idea.
b. their earnings per share may decrease.
c. the price of the stock will automatically decrease.
d. dividends must be paid on a periodic basis.

Ans: b, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics
45. Which of the following is not an advantage of issuing bonds instead of common stock?
a. Stockholder control is not affected.
b. Earnings per share on common stock may be lower.
c. Income to common shareholders may increase.
d. Tax savings result.

Ans: b, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics
46. Bonds that are secured by real estate are termed
a. mortgage bonds.
b. serial bonds.
c. debentures.
d. bearer bonds.

Ans: a, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
47. Bonds that mature at a single specified future date are called
a. coupon bonds.
b. term bonds.
c. serial bonds.
d. debentures.

Ans: b, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
48. Bonds that may be exchanged for common stock at the option of the bondholders are called
a. options.
b. stock bonds.
c. convertible bonds.
d. callable bonds.

Ans: c, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
49. Bonds that are subject to retirement at a stated dollar amount prior to maturity at the option of the issuer are called
a. callable bonds.
b. early retirement bonds.
c. options.
d. debentures.

Ans: a, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
50. Investors who receive checks in their names for interest paid on bonds must hold
a. registered bonds.
b. coupon bonds.
c. bearer bonds.
d. direct bonds.

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51. A bondholder that sends in a coupon to receive interest payments must have $a(n)$
a. unsecured bond.
b. bearer bond.
c. mortgage bond.
d. serial bond.

Ans: b, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
52. Bonds that are not registered are
a. bearer bonds.
b. debentures.
c. registered bonds.
d. transportable bonds.

Ans: a, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics
53. Bonds that are issued in the name of the owner are
a. coupon bonds.
b. bearer bonds.
c. serial bonds.
d. registered bonds.

Ans: d, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics
54. Corporations are granted the power to issue bonds through
a. tax laws.
b. state laws.
c. federal security laws.
d. bond debentures.

Ans: b, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
55. The party who has the right to exercise a call option on bonds is the
a. investment banker.
b. bondholder.
c. bearer.
d. issuer.

Ans: d, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics
56. A major disadvantage resulting from the use of bonds is that
a. earnings per share may be lowered.
b. interest must be paid on a periodic basis.
c. bondholders have voting rights.
d. taxes may increase.

Ans: b, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
57. Bonds will always fall into all but which one of the following categories?
a. Callable or convertible
b. Term or serial
c. Registered or bearer
d. Secured or unsecured

Ans: a, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
58. Which of the following statements concerning bonds is not a true statement?
a. Bonds are generally sold through an investment company.
b. The bond indenture is prepared after the bonds are printed.
c. The bond indenture and bond certificate are separate documents.
d. The trustee keeps records of each bondholder.

Ans: b, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics
59. A bond trustee does not
a. issue the bonds.
b. keep a record of each bondholder.
c. hold conditional title to pledged property.
d. maintain custody of unsold bonds.

Ans: a, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics
60. The contractual interest rate is always stated as $a(n)$
a. monthly rate.
b. daily rate.
c. semiannual rate.
d. annual rate.

Ans: d, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
61. When authorizing bonds to be issued, the board of directors does not specify the
a. total number of bonds authorized to be sold.
b. contractual interest rate.
c. selling price.
d. total face value of the bonds.

Ans: c, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
62. The following exhibit is for Target bonds.

| Bonds | $\frac{\text { Close }}{1001 / 4}$ | $\frac{\text { Yield }}{8.2}$ | $\frac{\text { Volume }}{35}$ | $\frac{\text { Net Change }}{+7 / 8}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |

The contractual interest rate of the Target bonds is
a. greater than the market interest rate.
b. less than the market interest rate.
c. equal to the market interest rate.
d. not determinable.

Ans: b, LO: 2, Bloom: C, Difficulty: Medium, Min: 2, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: Business Economics
63. The following exhibit is for Target bonds.

| Bonds | $\frac{\text { Close }}{1001 / 4}$ | $\frac{\text { Yield }}{8.2}$ | $\frac{\text { Volume }}{35}$ | $\frac{\text { Net Change }}{+7 / 8}$ |
| :--- | :--- | :--- | :--- | :--- |

On the day of trading referred to above,
a. no Target bonds were traded.
b. bonds with market prices of $\$ 3,500$ were traded.
c. at closing, the selling price of the bond was higher than the previous day's price.
d. the bond sold for $\$ 100.25$

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64. A $\$ 1,000$ face value bond with a quoted price of 98 is selling for
a. $\$ 1,000$.
b. $\$ 980$.
c. $\$ 908$.
d. $\$ 98$.

Ans: b, LO: 2, Bloom: AP, Difficulty: Easy, Min: 1, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $\$ 1,000 \times .98=\$ 980$
65. A bond with a face value of $\$ 200,000$ and a quoted price of $1021 / 8$ has a selling price of
a. \$240,225.
b. \$204,025.
c. $\$ 200,225$.
d. \$204,250.

Ans: d, LO: 2, Bloom: AP, Difficulty: Medium, Min: 2, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $\$ 200,000 \times 1.02125=\$ 204,250$
66. Premium on Bonds Payable
a. has a debit balance.
b. is a contra account.
c. is considered to be a reduction in the cost of borrowing.
d. is deducted from bonds payable on the balance sheet.

Ans: c, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
67. If the market interest rate is greater than the contractual interest rate, bonds will sell
a. at a premium.
b. at face value.
c. at a discount.
d. only after the stated interest rate is increased.

Ans: c, LO: 2, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
68. On January 1, 2014, Meeks Corporation issued \$5,000,000, 10-year, 4\% bonds at 102. Interest is payable semiannually on January 1 and July 1. The journal entry to record this transaction on January 1, 2014 is
a. Cash .................................................................................. 5,000,000

Bonds Payable
5,000,000
b. Cash $\qquad$
Bonds Payable
5,100,000
$5,100,000$

Bonds Payable
,000,000

5,100,000
Bonds Payable
5,000,000
Premium on Bonds Payable
100,000
69. The total cost of borrowing is increased only if the
a. bonds were issued at a premium.
b. bonds were issued at a discount.
c. bonds were sold at face value.
d. market interest rate is less than the contractual interest rate on that date.

Ans: b, LO: 2, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
70. If the market interest rate is $5 \%$, a $\$ 10,000,6 \%, 10$-year bond, that pays interest semiannually would sell at an amount
a. less than face value.
b. equal to face value.
c. greater than face value.
d. that cannot be determined.

Ans: c, LO: 2, Bloom: C, Difficulty: Easy, Min: 2, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics
71. The present value of a $\$ 10,000,5$-year bond, will be less than $\$ 10,000$ if the
a. contractual interest rate is less than the market interest rate.
b. contractual interest rate is greater than the market interest rate.
c. bond is convertible.
d. contractual interest rate is equal to the market interest rate.

Ans: a, LO: 2, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
72. Martinez Corporation issues 2,000, 10-year, $8 \%$, $\$ 1,000$ bonds dated January 1, 2014, at 98. The journal entry to record the issuance will show a
a. debit to Cash of $\$ 2,000,000$.
b. credit to Discount on Bonds Payable for $\$ 40,000$.
c. credit to Bonds Payable for $\$ 2,040,000$.
d. debit to Cash for $\$ 1,960,000$.

Ans: d, LO: 2, Bloom: AP, Difficulty: Medium, Min: 2, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $\$ 1,000 \times 2,000 \times .98=\$ 1,960,000$
73. The market interest rate is often called the
a. stated rate.
b. effective rate.
c. coupon rate.
d. contractual rate.

Ans: b, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
74. If bonds are issued at a discount, it means that the
a. financial strength of the issuer is suspect.
b. market interest rate is higher than the contractual interest rate.
c. market interest rate is lower than the contractual interest rate.
d. bondholder will receive effectively less interest than the contractual interest rate.

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75. Each of the following accounts is reported as long-term liabilities except
a. Interest Payable.
b. Bonds Payable.
c. Discount on Bonds Payable.
d. Premium on Bonds Payable.

Ans: a, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
76. The statement that "Bond prices vary inversely with changes in the market interest rate" means that if the
a. market interest rate increases, the contractual interest rate will decrease.
b. contractual interest rate increases, then bond prices will go down.
c. market interest rate decreases, then bond prices will go up.
d. contractual interest rate increases, the market interest rate will decrease.

Ans: c, LO: 2, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
77. The carrying value of bonds will equal the market price
a. at the close of every trading day.
b. at the end of the fiscal period.
c. on the date of issuance.
d. every six months on the date interest is paid.

Ans: c, LO: 2, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
78. The sale of bonds above face value
a. is a rare occurrence.
b. will cause the total cost of borrowing to be less than the bond interest paid.
c. will cause the total cost of borrowing to be more than the bond interest paid.
d. will have no net effect on Interest Expense by the time the bonds mature.

Ans: b, LO: 2, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
79. In the balance sheet, the account, Premium on Bonds Payable, is
a. added to bonds payable.
b. deducted from bonds payable.
c. classified as a stockholders' equity account.
d. classified as a revenue account.

Ans: a, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
80. Four thousand bonds with a face value of $\$ 1,000$ each, are sold at 105 . The entry to record the issuance is
a. Cash $\qquad$ 4,200,000
Bonds Payable $\qquad$ 4,200,000
b. Cash $\qquad$ 4,000,000
Premium on Bonds Payable 200,000
Bonds Payable $\qquad$
4,200,000
Premium on Bonds Payable
200,000
Bonds Payable
4,000,000
MC. 80 (Cont.)
d. Cash ................................................................................ 4,200,000

| Discount on Bonds Payable | 200,000 |
| :---: | :---: |
| Bonds Payable | 4,000,000 |

Ans: c, LO: 2, Bloom: AP, Difficulty: Medium, Min: 5, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $\$ 1,000 \times 4,000 \times 1.05=\$ 4,200,000$
81. Bond interest paid is
a. higher when bonds sell at a discount.
b. lower when bonds sell at a premium.
c. the same whether bonds sell at a discount or a premium.
d. higher when bonds sell at a discount and lower when bonds sell at a premium.

Ans: c, LO: 2, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
82. Bond Corporation issues 5,000, 10-year, $8 \%$, $\$ 1,000$ bonds dated January 1, 2014, at 103. The journal entry to record the issuance will show a
a. debit to Cash of $\$ 5,000,000$.
b. credit to Premium on Bonds Payable for $\$ 150,000$.
c. credit to Bonds Payable for $\$ 5,030,000$.
d. credit to Cash for $\$ 5,150,000$.

Ans: b, LO: 2, Bloom: AP, Difficulty: Medium, Min: 2, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $\$ 1,000 \times 5,000 \times .03=\$ 150,000$
83. Rikki Company received proceeds of $\$ 188,000$ on 10 -year, $6 \%$ bonds issued on January 1,2014 . The bonds had a face value of $\$ 200,000$, pay interest semi-annually on June 30 and December 31, and have a call price of 101. Rikki uses the straight-line method of amortization.
What is the amount of interest Rikki must pay the bondholders in 2014 ?
a. $\$ 11,200$
b. $\$ 12,000$
c. $\$ 13,200$
d. $\$ 10,800$

Ans: b, LO: 2, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $\$ 200,000 \times .06=\$ 12,000$
${ }^{\text {a }} 84$. Pan Company received proceeds of $\$ 188,000$ on 10-year, $6 \%$ bonds issued on January 1, 2013. The bonds had a face value of $\$ 200,000$, pay interest semi-annually on June 30 and December 31, and have a call price of 101. Pan uses the straight-line method of amortization.
What is the amount of interest expense Pan will show with relation to these bonds for the year ended December 31, 2014 ?
a. $\$ 12,000$
b. $\$ 11,200$
c. $\$ 13,200$
d. $\$ 10,800$

Ans: c, LO: 9, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: FSA

Solution: $(\$ 200,000 \times .06)+[((\$ 200,000-\$ 188,000) / 20) \times 2]$

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${ }^{\text {a }} 85$. Garland Company received proceeds of $\$ 188,000$ on 10 -year, $6 \%$ bonds issued on January 1,2013 . The bonds had a face value of $\$ 200,000$, pay interest semi-annually on June 30 and December 31, and have a call price of 101. Garland uses the straight-line method of amortization.
What is the carrying value of the bonds on January 1, 2015?
a. $\$ 200,000$
b. $\$ 190,400$
c. $\$ 197,350$
d. $\$ 189,200$

Ans: b, LO: 9, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution: \$200,000 - $[\$ 12,000-((\$ 12,000 / 20) \times 4)]=\$ 190,400$
86. Brooks Company received proceeds of $\$ 188,500$ on 10 -year, $8 \%$ bonds issued on January 1,2013 . The bonds had a face value of $\$ 200,000$, pay interest semi-annually on June 30 and December 31, and have a call price of 101. Brooks uses the straight-line method of amortization.
Brooks Company decided to redeem the bonds on January 1, 2015. What amount of gain or loss would Brooks report on its 2015 income statement?
a. \$9,200 gain
b. $\$ 11,200$ gain
c. $\$ 11,200$ loss
d. \$9,200 loss

Ans: c, LO: 3,9, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution: $\$ 200,000-\{\$ 11,500-[(\$ 11,500 / 20) \times 4]\}=\$ 190,800 ;(\$ 200,000 \times 1.01)-\$ 190,800=\$ 11,200$
87. Lowe Company has $\$ 1,500,000$ of bonds outstanding. The unamortized premium is $\$ 19,600$. If the company redeemed the bonds at 101, what would be the gain or loss on the redemption?
a. $\$ 4,600$ gain
b. $\$ 4,600$ loss
c. $\$ 15,000$ gain
d. \$15,000 loss

Ans: a, LO: 3, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $(\$ 1,500,000+\$ 19,600)-(\$ 1,500,000 \times 1.01)=\$ 4,600$ gain
88. The current carrying value of Lane's $\$ 800,000$ face value bonds is $\$ 797,000$. If the bonds are retired at 103, what would be the amount Lane would pay its bondholders?
a. $\$ 797,000$
b. $\$ 800,000$
c. $\$ 820,910$
d. $\$ 824,000$

Ans: d, LO: 3, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution: $\$ 800,000 \times 1.03=\$ 824,000$
89. Robin Corporation retires its $\$ 800,000$ face value bonds at 104 on January 1, following the payment of annual interest. The carrying value of the bonds at the redemption date is $\$ 829,960$. The entry to record the redemption will include a
a. credit of $\$ 2,040$ to Loss on Bond Redemption.
b. debit of $\$ 2,040$ to Loss on Bond Redemption.
c. credit of $\$ 32,040$ to Premium on Bonds Payable.
d. debit of $\$ 32,000$ to Premium on Bonds Payable.

Ans: b, LO: 3, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $(\$ 800,000 \times 1.04)-\$ 829,960=\$ 2,040$ loss
90. A $\$ 600,000$ bond was retired at 102 when the carrying value of the bond was $\$ 622,000$. The entry to record the retirement would include a
a. gain on bond redemption of $\$ 12,000$.
b. loss on bond redemption of $\$ 10,000$.
c. loss on bond redemption of $\$ 12,000$.
d. gain on bond redemption of $\$ 10,000$.

Ans: d, LO: 3, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA
91. If sixty $\$ 1,000$ convertible bonds with a carrying value of $\$ 70,000$ are converted into 9,000 shares of $\$ 5$ par value common stock, the journal entry to record the conversion is
a. Bonds Payable ................................................................ 70,000

Common Stock ....................................................... 70,000
b. Bonds Payable ................................................................. 60,000

Premium on Bonds Payable .............................................. 10,000
Common Stock $\qquad$
c. Bonds Payable ................................................................ 60,000

Premium on Bonds Payable ............................................. 10,000
Common Stock 45,000 Paid-in Capital in Excess of Par ............................... 25,000
d. Bonds Payable ................................................................ 70,000

Discount on Bonds Payable ..................................... 10,000
Common Stock ........................................................ 45,000
Paid-in Capital in Excess of Par ............................... 15,000
Ans: c, LO: 3, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $\$ 70,000-(60 \times \$ 1,000)=\$ 10,000$ premium; $\$ 70,000-(9,000 \times \$ 5)=\$ 25,000$ Paid-in Capital in Excess of Par
92. A corporation recognizes a gain or loss
a. only when bonds are converted into common stock.
b. only when bonds are redeemed before maturity.
c. when bonds are redeemed at or before maturity.
d. when bonds are converted into common stock and when they are redeemed before maturity.

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93. If there is a loss on bonds redeemed early, the
a. loss is debited directly to Retained Earnings.
b. bonds' carrying value was less than the redemption price.
c. bonds' carrying value was greater than the redemption price.
d. loss is debited to Interest Expense, as a cost of financing.

Ans: b, LO: 3, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
94. If bonds can be converted into common stock,
a. they will sell at a lower price than comparable bonds without a conversion feature.
b. they will carry a higher interest rate than comparable bonds without the conversion feature.
c. they will be converted only if the issuer calls them in for conversion.
d. the bondholder may benefit if the market price of the common stock increases substantially.

Ans: d, LO: 3, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
95. When bonds are converted into common stock,
a. the market price of the stock on the date of conversion is credited to the Common Stock account.
b. the market price of the bonds on the date of conversion is credited to the Common Stock account.
c. the market price of the stock and the bonds is ignored when recording the conversion.
d. gains or losses on the conversion are recognized.

Ans: c, LO: 3, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
96. If bonds with a face value of $\$ 140,000$ are converted into common stock when the carrying value of the bonds is $\$ 135,000$, the entry to record the conversion will include a debit to
a. Bonds Payable for $\$ 140,000$.
b. Bonds Payable for $\$ 135,000$.
c. Discount on Bonds Payable for $\$ 5,000$.
d. Bonds Payable equal to the market price of the bonds on the date of conversion.

Ans: a, LO: 3, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA
97. A $\$ 600,000$ bond was retired at 98 when the carrying value of the bond was $\$ 590,000$. The entry to record the retirement would include a
a. gain on bond redemption of $\$ 10,000$.
b. Ioss on bond redemption of $\$ 10,000$.
c. loss on bond redemption of $\$ 2,000$.
d. gain on bond redemption of $\$ 2,000$.

Ans: d, LO: 3, Bloom: AP, Difficulty: Medium, Min: 2, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA
Solution: \$590,000 - (600,000 $\times .98)=\$ 2,000$ gain
98. Thirty $\$ 1,000$ bonds with a carrying value of $\$ 39,600$ are converted into 4,000 shares of $\$ 5$ par value common stock. The common stock had a market value of $\$ 9$ per share on the date of conversion. The entry to record the conversion is
a. Bonds Payable .................................................................. 39,600

Common Stock ........................................................ 20,000
Paid-in Capital in Excess of Par ................................ 19,600
b. Bonds Payable ................................................................. 30,000

Premium on Bonds Payable .............................................. 9,600
Common Stock ........................................................ 30,000
Paid-in Capital in Excess of Par ................................ 3,600
c. Bonds Payable ................................................................ 30,000

Premium on Bonds Payable ............................................. 9,600
Common Stock
20,000
Paid-in Capital in Excess of Par ................................ 19,600
d. Bonds Payable ................................................................. 39,600

Common Stock 36,000
Paid-in Capital in Excess of Par
3,600
Ans: c, LO: 3, Bloom: AP, Difficulty: Medium, Min: 2, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $\$ 39,600-(\$ 1,000 \times 30)=\$ 9,600$ premium; $\$ 39,600-(4,000 \times \$ 5)=\$ 19,600$ Paid-in Capital in Excess of Par
99. Which one of the following amounts increases each period when accounting for long-term notes payable?
a. Cash payment
b. Interest expense
c. Principal balance
d. Reduction of principal

Ans: d, LO: 4, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
100. In the balance sheet, mortgage notes payable are reported as
a. a current liability only.
b. a long-term liability only.
c. both a current and a long-term liability.
d. a current liability except for the reduction in principal amount.

Ans: c, LO: 4, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
101. A mortgage note payable with a fixed interest rate requires the borrower to make installment payments over the term of the loan. Each installment payment includes interest on the unpaid balance of the loan and a payment on the principal. With each installment payment, indicate the effect on the portion allocated to interest expense and the portion allocated to principal.

|  | Portion Allocated <br> to <br> Interest Expense |  |
| :--- | :--- | :--- |
| Increases | Portion Allocated <br> to Payment of Principal |  |
| a. | Increases |  |
| b. | Increases |  |
| c. | Decreases |  |
| d. | Decreases | Decreases |
| d. |  | Increases |

Ans: d, LO: 4, Bloom: C, Difficulty: Medium, Min: 2, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: FSA

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102. The entry to record an installment payment on a long-term note payable is
a. Mortgage Payable

Cash
b. Interest Expense

Cash
c. Mortgage Payable Interest Expense

Cash
d. Bonds Payable

Cash
Ans: c, LO: 4, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
103. Autumn Company purchased a building on January 2 by signing a long-term $\$ 630,000$ mortgage with monthly payments of $\$ 5,400$. The mortgage carries an interest rate of 10 percent.
The entry to record the first monthly payment will include a
a. debit to the Cash account for $\$ 5,400$.
b. credit to the Cash account for $\$ 5,250$.
c. debit to the Interest Expense account for \$5,250.
d. credit to the Mortgage Payable account for $\$ 5,400$.

Ans: c, LO: 4, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $\$ 630,000 \times .10 \times 1 / 12=\$ 5,250$ interest
104. Norton Company purchased a building on January 2 by signing a long-term $\$ 480,000$ mortgage with monthly payments of $\$ 4,500$. The mortgage carries an interest rate of 10 percent. The amount owed on the mortgage after the first payment will be
a. $\$ 480,000$.
b. $\$ 479,500$.
c. $\$ 476,000$.
d. $\$ 475,500$.

Ans: b, LO: 4, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $\$ 480,000 \times .10 \times 1 / 12=\$ 4,000$ interest; $\$ 480,000-(\$ 4,500-\$ 4,000)=\$ 479,500$
105. Harris Company borrowed $\$ 800,000$ from Liber Bank on January 1, 2013 in order to expand its mining capabilities. The five-year note required annual payments of \$208,349 and carried an annual interest rate of $8.5 \%$. What is the amount of expense Harris must recognize on its 2014 income statement?
a. $\$ 68,000$
b. $\$ 56,070$
c. $\$ 43,127$
d. $\$ 49,659$

Ans: b, LO: 4, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting
Solution: $\$ 208,349-(\$ 800,000 \times .085)=\$ 140,349$ principle reduction; $\$ 800,000-140,349=\$ 659,651$; Liberbank $\$ 659,651 \times .085=\$ 56,070$
106. Harris Company borrowed $\$ 800,000$ from Liber Bank on January 1, 2013 in order to expand its mining capabilities. The five-year note required annual payments of $\$ 208,349$ and carried an annual interest rate of $8.5 \%$. What is the balance in the notes payable account at December 31, 2014?
a. $\$ 800,000$
b. $\$ 507,372$
c. $\$ 659,651$
d. $\$ 664,000$

Ans: b, LO: 4, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution: $\$ 208,349-(\$ 800,000 \times .085)=\$ 140,349$ principle reduction; $\$ 800,000-140,349=\$ 659,651$; balance $12 / 31 / 13 ; \$ 208,349-(\$ 659,651 \times .085)$ $=\$ 152,279$ principle reduction; $\$ 659,651-\$ 152,279=\$ 507,372$ balance $12 / 31 / 14$
107. The lessee has substantially all of the benefits and risks of ownership in $a(n)$
a. apartment lease.
b. capital lease.
c. operating lease.
d. operating lease and a capital lease.

Ans: b, LO: 5, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Risk Analysis, AICPA PC: None, IMA: Business Economics
108. A lease where the intent is temporary use of the property by the lessee with continued ownership of the property by the lessor is called
a. off-balance sheet financing.
b. an operating lease.
c. a capital lease.
d. a purchase of property.

Ans: b, LO: 5, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
109. Which of the following is not a condition which would require the recording of a lease contract as a capital lease?
a. The lease transfers ownership of the property to the lessee.
b. The lease contains a bargain purchase option.
c. The lease term is less than $75 \%$ of the economic life of the leased property.
d. The present value of the lease payments equals or exceeds $90 \%$ of the fair value of the leased property.

Ans: c, LO: 5, Bloom: K, Difficulty: Medium, Min: 3, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
110. In a lease contract,
a. the owner of the property is called the lessee.
b. the presence of a bargain purchase option indicates that it is a capital lease.
c. the renter of the property is called the lessor.
d. there is always a transfer of ownership at the end of the lease term.

Ans: b, LO: 5, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
111. Which of the following statements concerning leases is true?
a. Capital leases are favored by lessees.
b. The appearance of the account, Leased Asset, on the balance sheet, signifies an operating lease.
c. The portion of a lease liability expected to be paid in the next year is reported as a current liability.
d. Present value is irrelevant in accounting for leases.

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112. If the present value of lease payments equals or exceeds $90 \%$ of the fair market value of the leased property, the
a. conditions are met for the lease to be considered a capital lease.
b. lease is uneconomical and should not be entered into.
c. lease may be classified as an operating lease.
d. recording of a lease liability is optional-that is, the off-balance sheet approach can be elected.

Ans: a, LO: 5, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
113. Each of the following may be shown on a supporting schedule instead of on the balance sheet except the
a. current maturities of long-term debt.
b. conversion privileges.
c. interest rates.
d. maturity dates.

Ans: a, LO: 6, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
114. The times interest earned is computed by dividing
a. net income by interest expense.
b. income before income taxes by interest expense.
c. income before interest expense by interest expense.
d. income before income taxes and interest expense by interest expense.

Ans: d, LO: 6, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
115. The discount on bonds payable or premium on bonds payable is shown on the balance sheet as an adjustment to bonds payable to arrive at the carrying value of the bonds. Indicate the appropriate addition or subtraction to bonds payable:

|  | Premium on <br> Bonds Payable |  |
| :--- | :---: | :---: | | Discount on |
| :---: |
| Bonds Payable |

Ans: c, LO: 6, Bloom: K, Difficulty: Medium, Min: 2, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
116. In a recent year Chandler Corporation had net income of $\$ 150,000$, interest expense of $\$ 40,000$, and tax expense of $\$ 20,000$. What was Chandler Corporation's times interest earned ratio for the year?
a. 5.25
b. 4.75
c. 3.75
d. 4.25

Ans: a, LO: 6, Bloom: AP, Difficulty: Medium, Min: 2, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting
Solution: $(\$ 150,000+\$ 40,000+\$ 20,000) / \$ 40,000=5.25$
117. In a recent year Luke Corporation had net income of $\$ 250,000$, interest expense of $\$ 50,000$, and a times interest earned ratio of 10 . What was Luke Corporation's income before taxes for the year?
a. $\$ 550,000$
b. $\$ 500,000$
c. $\$ 450,000$
d. None of these answer choices are correct.

Ans: c, LO: 6, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution: $10=(\$ 250,000+\$ 50,000+$ tax exp $) / 50,000 ;$ Tax exp $=\$ 200,000 ;$ Inc before tax $=\$ 250,000+\$ 200,000=\$ 450,000$
118. The adjusted trial balance for Otam Corp. at the end of the current year, 2014, contained the following accounts.

| 5-year Bonds Payable 8\% | $\$ 1,500,000$ |
| :--- | ---: |
| Interest Payable | 50,000 |
| Premium on Bonds Payable | 150,000 |
| Notes Payable (3 mo.) | 40,000 |
| Notes Payable (5 yr.) | 145,000 |
| Mortgage Payable (\$10,000 due currently) | 300,000 |
| Salaries and Wages Payable | 18,000 |
| Taxes Payable (due 3/15 of 2015) | 25,000 |

The total long-term liabilities reported on the balance sheet are
a. $\$ 1,945,000$.
b. $\$ 1,935,000$.
c. $\$ 2,095,000$.
d. $\$ 2,085,000$.

Ans: d, LO: 6, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution: $\$ 1,500,000+\$ 150,000+\$ 145,000+\$ 290,000=\$ 2,085,000$
119. The 2014 financial statements of Barker Co. contain the following selected data (in millions).

| Current Assets | $\$ 75$ |
| :--- | ---: |
| Total Assets | 140 |
| Current Liabilities | 40 |
| Total Liabilities | 90 |
| Cash | 8 |

The debt to assets ratio is
a. $64.3 \%$.
b. $53.3 \%$.
c. $28.6 \%$.
d. $147.4 \%$.

Ans: a, LO: 6, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution: $\$ 90 / \$ 140=64.3 \%$

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${ }^{\text {a }} 120$. The present value of a bond is also known as its
a. face value.
b. market price.
c. future value.
d. deferred value.

Ans: b, LO: 7, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
${ }^{\text {a }} 121$. $\$ 4$ million, $8 \%, 10$-year bonds are issued at face value. Interest will be paid semi-annually. When calculating the market price of the bond, the present value of
a. $\$ 320,000$ received for 10 periods must be calculated.
b. $\$ 4$ million received in 10 periods must be calculated.
c. $\$ 4$ million received in 20 periods must be calculated.
d. $\$ 160,000$ received for 10 periods must be calculated.

Ans: c, LO: 7, Bloom: C, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA
${ }^{\text {a }} 122$. Either the straight-line method or the effective-interest method of amortization will always result in
a. the same amount of interest expense being recognized over the term of the bonds.
b. the same amount of interest expense being recognized each year.
c. more interest expense being recognized than if premium or discounts were not amortized.
d. the same carrying value each year during the term of the bonds.

Ans: a, LO: 8,9, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
${ }^{\text {a }}$ 123. A corporation issued $\$ 600,000,10 \%$, 5 -year bonds on January 1, 2014 for $\$ 648,666$, which reflects an effective-interest rate of $7 \%$. Interest is paid semiannually on January 1 and July 1. If the corporation uses the effective-interest method of amortization of bond premium, the amount of bond interest expense to be recognized on July 1, 2014, is
a. $\$ 30,000$.
b. $\$ 21,000$.
c. $\$ 32,434$.
d. \$22,703.

Ans: d, LO: 8, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $\$ 648,666 \times(.07 / 2)=\$ 22,703$
a124. A bond discount must
a. always be amortized using straight-line amortization.
b. always be amortized using the effective-interest method.
c. be amortized using the effective-interest method if it yields annual amounts that are materially different than the straight-line method.
d. be amortized using the straight-line method if it yields annual amounts that are materially different than the effective-interest method.

Ans: c, LO: 8, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
${ }^{\text {a12 }}$. When the effective-interest method of bond discount amortization is used,
a. the applicable interest rate used to compute interest expense is the prevailing market interest rate on the date of each interest payment date.
b. the carrying value of the bonds will decrease each period.
c. interest expense will not be a constant dollar amount over the life of the bond.
d. interest paid to bondholders will be a function of the effective-interest rate on the date the bonds are issued.

Ans: c, LO: 8, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
${ }^{\text {a }} 126$. When the effective-interest method of bond premium amortization is used, the
a. amount of premium amortized will get larger with successive amortization.
b. carrying value of the bonds will increase with successive amortization.
c. interest paid to bondholders will increase after each interest payment date.
d. interest rate used to calculate interest expense will be the contractual rate.

Ans: a, LO: 8, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
${ }^{\text {a }} 127$. Cotton Company issued $\$ 500,000$ of $7 \%$, 10-year bonds on one of its interest dates for $\$ 431,850$ to yield an effective annual rate of $9 \%$. The effective-interest method of amortization is to be used. Interest is paid annually.
What amount of discount (to the nearest dollar) should be amortized for the first interest period?
a. $\$ 4,770$
b. $\$ 6,133$
c. $\$ 7,732$
d. $\$ 3,867$

Ans: d, LO: 8, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $(\$ 431,850 \times .09)-(\$ 500,000 \times .07)=\$ 3,867$
${ }^{\text {a }} 128$. Cotton Company issued $\$ 500,000$ of $7 \%$, 10-year bonds on one of its interest dates for $\$ 431,850$ to yield an effective annual rate of $9 \%$. The effective-interest method of amortization is to be used. Interest is paid annually.
The journal entry on the first interest payment date, to record the payment of interest and amortization of discount will include a
a. debit to Interest Expense for $\$ 35,000$.
b. credit to Cash for $\$ 38,867$.
c. credit to Discount on Bonds Payable for $\$ 3,867$.
d. debit to Interest Expense for $\$ 45,000$.

Ans: c, LO: 8, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $(\$ 431,850 \times .09)-(\$ 500,000 \times .07)=\$ 3,867$ Discount
${ }^{\text {a }}$ 129. Cotton Company issued $\$ 500,000$ of $7 \%$, 10-year bonds on one of its interest dates for $\$ 431,850$ to yield an effective annual rate of $9 \%$. The effective-interest method of amortization is to be used.
How much bond interest expense (to the nearest dollar) should be reported on the income statement for the end of the first year?
a. \$30,229
b. $\$ 38,867$
c. $\$ 45,000$
d. $\$ 35,000$

Ans: b, LO: 8, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting
${ }^{\text {a }}$ 130. On January 1, Browne Inc. issued $\$ 5,000,000,9 \%$ bonds for $\$ 4,685,000$. The market rate of interest for these bonds is $10 \%$. Interest is payable annually on December 31. Browne uses the effective-interest method of amortizing bond discount. At the end of the first year, Greene should report unamortized bond discount of
a. $\$ 283,500$.
b. $\$ 296,500$.
c. $\$ 286,650$.
d. $\$ 255,650$.

Ans: b, LO: 8, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution: $(\$ 5,000,000 \times .09)-(\$ 4,685,000 \times .10)=\$ 18,500$ disc. amount; $\$ 315,000-\$ 18,500=\$ 296,500$ unamount, disc.
${ }^{a}$ 131. On January 1, Shade Corporation issued \$3,000,000, 7\%, 5-year bonds with interest payable on December 31. The bonds sold for $\$ 3,216,288$. The market rate of interest for these bonds was $6 \%$. On the first interest date, using the effective-interest method, the debit entry to Interest Expense is for
a. $\$ 180,000$.
b. $\$ 225,140$.
c. $\$ 192,977$.
d. \$210,000.

Ans: c, LO: 8, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: \$3,216,288×. $06=\$ 192,977$
${ }^{\text {a }} 132$. On January 1, Borge Inc. issued $\$ 3,000,000,8 \%$ bonds for $\$ 2,817,000$. The market rate of interest for these bonds is $9 \%$. Interest is payable annually on December 31. Borge uses the effective-interest method of amortizing bond discount. At the end of the first year, Borge should report unamortized bond discount of:
a. $\$ 164,700$.
b. $\$ 169,470$.
c. $\$ 157,647$.
d. $\$ 153,000$.

Ans: b, LO: 8, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution: $(\$ 2,817,000 \times .09)-(\$ 3,000,000 \times .08)=\$ 13,530$ Disc. Amount; $\$ 183,000-\$ 13,530=\$ 169,470$ Unamount, disc.
${ }^{\text {a }}$ 133. On January 1, Pacer Corporation issued $\$ 2,000,000,13 \%, 5$-year bonds with interest payable on July 1 and January 1. The bonds sold for $\$ 2,197,080$. The market rate of interest for these bonds was $11 \%$. On the first interest date, using the effective-interest method, the debit entry to Interest Expense is for:
a. \$130,000.
b. $\$ 142,810$.
c. $\$ 120,839$.
d. $\$ 241,679$.

Ans: c, LO: 8, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $\$ 2,197,080 \times .055=\$ 120,839$
${ }^{\text {a }} 134$. Which of the following statements regarding the effective-interest method of accounting for bonds characteristics is false?
a. GAAP usually requires use of the effective interest method.
b. The amount of periodic interest expense decreases over the life of a discounted bond issue when the effective-interest method is used.
c. Over the life of the bonds, the carrying value increases for discounted bonds when using the effective-interest method.
d. The effective-interest method applies a constant percentage to the bond carrying value to compute interest expense.

Ans: b, LO: 8, Bloom: C, Difficulty: Easy, Min: 2, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
${ }^{\text {a }} 135$. On January 1, Sage Corporation issues $\$ 1,000,000,5$-year, $12 \%$ bonds at 95 with interest payable on July 1 and January 1. The carrying value of the bonds at the end of the third interest period is:
a. $\$ 965,000$
b. $\$ 970,000$
c. $\$ 930,000$
d. $\$ 938,000$

Ans: a, LO: 9, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution: $\$ 1,000,000 \times .95=\$ 950,000 ; \$ 1,000,000-\$ 950,000=\$ 50,000$ Disc.; $(\$ 50,000 / 10) \times 3=\$ 15,000$ Disc. amount.; $\$ 950,000+\$ 15,000=$ \$965,000
${ }^{\text {a/ }} 136$. If bonds are originally sold at a discount using the straight-line amortization method:
a. Interest expense in the earlier years of the bond's life will be less than the interest to be paid.
b. Interest expense in the earlier years of the bond's life will be the same as interest to be paid.
c. Unamortized discount is subtracted from the face value of the bond to determine its carrying value.
d. Unamortized discount is added to the face value of the bond to determine its carrying value.

Ans: c, LO: 9, Bloom: AP, Difficulty: Easy, Min: 2, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA
${ }^{\text {a }} 137$. Presented here is a partial amortization schedule for Graceland Company who sold $\$ 100,000$, five year $10 \%$ bonds on January 1, 2014 for $\$ 108,000$ and uses annual straight-line amortization.

|  | BOND AMORTIZATION SCHEDULE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Interest Period | Interest <br> Paid | Interest <br> Expense | Premium <br> Amortization | Unamortized <br> Premium | Bond Carrying <br> Value |
| January 1,2014 |  |  |  | $\$ 8,000$ | $\$ 108,000$ |
| January 1,2015 | (i) | (ii) | (iii) | (iv) | (v) |

Which of the following amounts should be shown in cell (i)?
a. $\$ 10,800$
b. $\$ 11,600$
c. $\$ 10,000$
d. \$2,000

Ans: c, LO: 9, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $\$ 100,000 \times 10 \%=\$ 10,000$

## 15-28 Test Bank for Accounting Principles, Eleventh Edition

${ }^{\text {a }} 138$. Presented here is a partial amortization schedule for Graceland Company who sold $\$ 100,000$, five year $10 \%$ bonds on January 1, 2014 for $\$ 108,000$ and uses annual straight-line amortization.

|  | BOND AMORTIZATION SCHEDULE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Interest Period | Interest <br> Paid | Interest <br> Expense | Premium <br> Amortization | Unamortized <br> Premium | Bond Carrying <br> Value |
| January 1, 2014 |  |  |  | $\$ 8,000$ | $\$ 108,000$ |
| January 1,2015 | (i) | (ii) | (iii) | (iv) | (v) |

Which of the following amounts should be shown in cell (ii)?
a. \$11,600
b. $\$ 8,400$
c. $\$ 10,800$
d. $\$ 9,200$

Ans: b, LO: 9, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $\$ 100,000 \times 10 \%=\$ 10,000$ int. pd.; $\$ 8,000 \div 5=1,600$ Premium Amount.; $\$ 10,000-\$ 1,600=\$ 8,400$
${ }^{\text {a }} 139$. Presented here is a partial amortization schedule for Graceland Company who sold $\$ 200,000$, six year $10 \%$ bonds on January 1, 2014 for $\$ 212,000$ and uses annual straightline amortization.

|  | BOND AMORTIZATION SCHEDULE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Interest Period | Interest <br> Paid | Interest <br> Expense | Premium <br> Amortization | Unamortized <br> Premium | Bond Carrying <br> Value |
| January 1, 2014 | (i) | (ii) | (iii) | (iv) | $\$ 212,000$ |
| January 1,2015 | (i) | (v) |  |  |  |

Which of the following amounts should be shown in cell (iii)?
a. $\$ 10,000$
b. $\$ 12,000$
c. $\$ 2,000$
d. $\$ 1,200$

Ans: c, LO: 9, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $\$ 12,000 \div 6=\$ 2,000$
${ }^{\text {a }} 140$. Presented here is a partial amortization schedule for Graceland Company who sold \$200,000, six year 10\% bonds on January 1, 2014 for \$212,000 and uses annual straightline amortization.

|  | BOND AMORTIZATION SCHEDULE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Interest Period | Interest <br> Paid | Interest <br> Expense | Premium <br> Amortization | Unamortized <br> Premium | Bond Carrying <br> Value |
| January 1, 2014 |  |  |  | $\$ 12,000$ | $\$ 212,000$ |
| January 1, 2015 | (i) | (ii) | (iii) | (iv) | (v) |

Which of the following amounts should be shown in cell (iv)?
MC. 140 (Cont.)
a. $\$ 10,800$
b. $\$ 6,000$
c. $\$ 11,400$
d. $\$ 10,000$

Ans: d, LO: 9, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $\$ 12,000 / 6=\$ 2,000$ Prem. Amount.; $\$ 12,000-\$ 2,000=\$ 10,000$ Unamount. Prem.
${ }^{\text {a }} 141$. Presented here is a partial amortization schedule for Graceland Company who sold $\$ 100,000$, five year $10 \%$ bonds on January 1, 2014 for $\$ 108,000$ and uses annual straight-line amortization.

|  | BOND AMORTIZATION SCHEDULE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Interest Period | Interest <br> Paid | Interest <br> Expense | Premium <br> Amortization | Unamortized <br> Premium | Bond Carrying <br> Value |
| January 1,2014 |  |  |  | $\$ 8,000$ | $\$ 108,000$ |
| January 1,2015 | (i) | (ii) | (iii) | (iv) | (v) |

Which of the following amounts should be shown in cell (v)?
a. \$109,600
b. $\$ 108,800$
c. $\$ 106,400$
d. $\$ 107,200$

Ans: c, LO: 9, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: \$8,000 / 5 = \$1,600 Prem. Amount; \$108,000 - \$1,600 = \$106,400
${ }^{\text {a }}$ 142. On January 1, Wellness Corporation issues $\$ 3,000,000,5$-year, $12 \%$ bonds at 95 with interest payable on July 1 and January 1. The entry on December 31 to record accrued bond interest and the amortization of bond discount using the straight-line method will include a
a. debit to Interest Expense, $\$ 180,000$.
b. debit to Interest Expense, $\$ 360,000$.
c. credit to Discount on Bonds Payable, $\$ 15,000$.
d. credit to Discount on Bonds Payable, $\$ 30,000$.

Ans: c, LO: 9, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $\$ 3,000,000 \times(1-.95)=\$ 150,000$ Disc.; $\$ 150,000 / 10=\$ 15,000$ Disc. Amount.
143. On January 1, 2014, \$2,000,000, 10-year, 10\% bonds, were issued for \$1,943,000. Interest is paid annually on January 1. If the issuing corporation uses the straight-line method to amortize discount on bonds payable, the monthly amortization amount is
a. $\$ 19,430$.
b. $\$ 5,700$.
c. $\$ 1,535$.
d. $\$ 475$.

Ans: d, LO: 9, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $\$ 2,000,000-\$ 1,943,000=\$ 57,000 ;(\$ 57,000 / 10) / 12=\$ 475$

## 15-30 Test Bank for Accounting Principles, Eleventh Edition

144. A corporation issues $\$ 500,000,8 \%$, 5 -year bonds on January 1, 2014, for $\$ 479,000$. Interest is paid annually on January 1. If the corporation uses the straight-line method of amortization of bond discount, the amount of bond interest expense to be recognized in December 31, 2014's adjusting entry is
a. $\$ 44,200$.
b. $\$ 40,000$.
c. $\$ 35,800$.
d. $\$ 4,200$.

Ans: a, LO: 9, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $(\$ 500,000 \times .08)+[(\$ 500,000-\$ 479,000) / 5]=\$ 44,200$
${ }^{\text {a }}$ 145. Shakey Company issued $\$ 500,000$ of $6 \%, 5$-year bonds at 98 , with interest paid annually. Assuming straight-line amortization, what is the total interest cost of the bonds?
a. $\$ 150,000$
b. $\$ 160,000$
c. $\$ 145,000$
d. $\$ 140,000$

Ans: b, LO: 9, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $(\$ 500,000 \times .06 \times 5)+[\$ 500,000 \times(1.00-.98)]=\$ 160,000$
${ }^{\text {a }} 146$. Dakota Company issued $\$ 700,000$ of $6 \%, 5$-year bonds at 98 , with interest paid annually. Assuming straight-line amortization, what is the carrying value of the bonds after one year?
a. $\$ 686,000$
b. $\$ 683,200$
c. $\$ 688,800$
d. $\$ 697,200$

Ans: c, LO: 9, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution: $(\$ 700,000 \times .98)+(\$ 14,000 / 5)=\$ 688,800$
${ }^{\text {a }} 147$. Wendy Company issued $\$ 600,000$ of $8 \%, 5$-year bonds at 105 . Assuming straight-line amortization and annual interest payments, how much bond interest expense is recorded on the next interest date?
a. $\$ 48,000$
b. $\$ 54,000$
c. $\$ 42,000$
d. $\$ 6,000$

Ans: c, LO: 9, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $(\$ 600,000 \times .08)-[(\$ 600,000 \times .05) / 5]=\$ 42,000$
${ }^{\text {a }} 148$. Hart Company issued $\$ 600,000$ of $8 \%, 5$-year bonds at 105 , with interest paid annually. Assuming straight-line amortization, what is the carrying value of the bonds after one year?
a. $\$ 630,000$
b. $\$ 627,000$
c. $\$ 624,000$
d. $\$ 633,000$

Ans: c, LO: 9, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution: $(\$ 600,000 \times 1.05)-[(\$ 600,000 \times .05) / 5]=\$ 624,000$
${ }^{a}$ a149. On January 1, 2014, $\$ 3,000,000,5$-year, $10 \%$ bonds, were issued for $\$ 2,916,000$. Interest is paid semiannually on January 1 and July 1 . If the issuing corporation uses the straightline method to amortize discount on bonds payable, the monthly amortization amount is
a. $\$ 14,000$.
b. $\$ 16,800$.
c. $\$ 700$.
d. $\$ 1,400$.

Ans: d, LO: 9, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $[(\$ 3,000,000-\$ 2,916,000) / 10] / 6=\$ 1,400$
${ }^{\text {a }} 150$. A corporation issues $\$ 500,000,8 \%$, 5 -year bonds on January 1, 2014 for $\$ 479,000$. Interest is paid semiannually on January 1 and July 1. If the corporation uses the straightline method of amortization of bond discount, the amount of bond interest expense to be recognized on July 1, 2014 is
a. $\$ 42,100$.
b. $\$ 20,000$.
c. $\$ 22,100$.
d. $\$ 17,900$.

Ans: c, LO: 9, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $(\$ 500,000 \times .08 \times 1 / 2)+[(\$ 500,000-\$ 479,000) / 10]=\$ 22,100$
${ }^{\text {a1 }} 151$. Over the term of the bonds, the balance in the Discount on Bonds Payable account will
a. fluctuate up and down if the market is volatile.
b. decrease.
c. increase.
d. be unaffected until the bonds mature.

Ans: b, LO: 9, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
${ }^{\text {a }} 152$. Bond discount should be amortized to comply with
a. the historical cost principle.
b. the expense recognition principle.
c. the revenue recognition principle.
d. conservatism.

Ans: b, LO: 9, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
${ }^{\text {a15 }}$. If bonds have been issued at a discount, over the life of the bonds, the
a. carrying value of the bonds will decrease.
b. carrying value of the bonds will increase.
c. interest expense will increase, if the discount is being amortized on a straight-line basis.
d. unamortized discount will increase.

Ans: b, LO: 9, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
154. The market value (present value) of a bond is a function of all of the following except the
a. dollar amounts to be received.
b. length of time until the amounts are received.
c. market rate of interest.
d. length of time until the bond is sold.

Ans: d, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics

## 15-32 Test Bank for Accounting Principles, Eleventh Edition

155. On the date of issue, Radisch Corporation sells $\$ 5$ million of 5 -year bonds at 98 . The entry to record the sale will include the following debits and credits:
Bonds Payable
a. $\$ 4,900,000 \mathrm{Cr}$.
b. $\$ 5,000,000 \mathrm{Cr}$.
c. $\$ 4,900,000 \mathrm{Cr}$.
d. $\$ 5,000,000 \mathrm{Cr}$.

Discount on Bonds Payable
\$0 Dr.
\$100,000 Dr.
\$1,200,000 Dr.
\$10,000 Dr.
Ans: b, LO: 2, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $[\$ 5,000,000 \times(1.00-.98)]=\$ 100,000$
156. The market rate of interest for a bond issue which sells for more than its face value is
a. independent of the interest rate stated on the bond.
b. higher than the interest rate stated on the bond.
c. equal to the interest rate stated on the bond.
d. less than the interest rate stated on the bond.

Ans: d, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
157. When a company retires bonds before maturity, the gain or loss on redemption is the difference between the cash paid and the
a. carrying value of the bonds.
b. face value of the bonds.
c. original selling price of the bonds.
d. maturity value of the bonds.

Ans: a, LO: 3, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
158. Belle Corporation retires its bonds at 105 on January 1, following the payment of semiannual interest. The face value of the bonds is $\$ 600,000$. The carrying value of the bonds at the redemption date is $\$ 621,500$. The entry to record the redemption will include a
a. credit of $\$ 21,500$ to Loss on Bond Redemption.
b. debit of $\$ 30,000$ to Premium on Bonds Payable.
c. credit of $\$ 8,500$ to Gain on Bond Redemption.
d. debit of $\$ 21,500$ to Premium on Bonds Payable.

Ans: d, LO: 3, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution: $\$ 621,500-\$ 600,000)=\$ 21,500$ Premium
159. Each payment on a mortgage note payable consists of
a. interest on the original balance of the loan.
b. reduction of loan principal only.
c. interest on the original balance of the loan and reduction of loan principal.
d. interest on the unpaid balance of the loan and reduction of loan principal.

Ans: d, LO: 4, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
160. Able Electronics Company issues a $\$ 1,000,000,8 \%, 20$-year mortgage note on January 1. The terms provide for semiannual installment payments, exclusive of real estate taxes and insurance, of $\$ 58,276$. After the first installment payment, the principal balance is
a. $\$ 1,000,000$.
b. $\$ 941,724$.
c. $\$ 981,724$.
d. \$962,717.

Ans: c, LO: 4, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution: $\$ 1,000,000-[\$ 58,276-(\$ 1,000,000 \times .04)]=\$ 981,724$
161. The lessee must record a lease as an asset if the lease
a. transfers ownership of the property to the lessor.
b. contains a purchase option.
c. term is $75 \%$ or more of the useful life of the leased property.
d. payments equal or exceed $90 \%$ of the fair value of the leased property.

Ans: c, LO: 5, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
162. Which of the following is not a condition under which the lessee must record the lease of an asset?
a. The lease contains a bargain purchase option.
b. The lease transfers ownership of the property to the lessee.
c. The lease term is equal to $60 \%$ of the economic life of the lease property.
d. The present value of the lease payments is $90 \%$ of the fair value of the leased property.
Ans: c, LO: 5, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics
163. The debt to assets ratio is computed by dividing
a. long-term liabilities by total assets.
b. total debt by total assets.
c. total assets by total debt.
d. total assets by long-term liabilities.

Ans: b, LO: 6, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
${ }^{\text {a }} 164$. The market price of a bond is the
a. present value of its principal amount at maturity plus the present value of all future interest payments.
b. principal amount plus the present value of all future interest payments.
c. principal amount plus all future interest payments.
d. present value of its principal amount only.

Ans: a, LO: 7, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
165. Under IFRS Liabilities are generally presented in
a. alphabetical order.
b. order of liquidity.
c. maturity date order.
d. order of magnitude.

IFRS Ans: b, LO: 10, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
166. Preferred stock that is required to be redeemed at a specific point in time in the future is reported
a. as equity.
b. as debt.
c. as debt or equity depending on the circumstances.
d. in a "mezzanine" area between debt and equity.

IFRS Ans: b, LO: 10, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
167. The effective-interest method for amortization of bond discounts is required under
a. GAAP only.
b. IFRS only.
c. Both GAAP and IFRS.
d. Neither GAAP or IFRS.

IFRS Ans: c, LO: 10, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
168. Under IFRS, the proceeds from the issuance of convertible debt are reported as
a. debt only.
b. equity only.
c. debt or equity depending on the circumstances.
d. both debt and equity.

IFRS Ans: d, LO: 10, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
169. Under IFRS, companies do not use a
a. discount account.
b. premium account.
c. bonds payable account.
d. discount or premium account.

IFRS Ans: d, LO: 10, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting

Answers to Multiple Choice Questions

| Item | Ans. | Item | Ans. | Item | Ans. | Item | Ans. | Item | Ans. | Item | Ans. | Item | Ans. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 39. | d | 59. | a | 79. | a | 99. | d | 119. | a | ${ }^{\text {a } 139 .}$ | c | 159. | d |
| 40. | b | 60. | d | 80. | c | 100. | c | ${ }^{1} 120$. | b | a140. | d | 160. | c |
| 41. | d | 61. | c | 81. | c | 101. | d | ${ }^{1} 121$. | c | a141. | c | 161. | c |
| 42. | c | 62. | b | 82. | b | 102. | c | ${ }^{1} 122$. | a | a142. | c | 162. | c |
| 43. | a | 63. | c | 83. | b | 103. | c | ${ }^{\text {a } 123 .}$ | d | ${ }^{\text {a } 143 .}$ | d | 163. | b |
| 44. | b | 64. | b | 84. | c | 104. | b | ${ }^{\text {a } 124 .}$ | c | ${ }^{\text {a } 144 .}$ | a | ${ }^{\text {a } 164 .}$ | a |
| 45. | b | 65. | d | 85. | b | 105. | b | ${ }^{\text {a } 125 .}$ | c | ${ }^{\text {a }} 145$. | b | 165. | b |
| 46. | a | 66. | c | 86. | c | 106. | b | ${ }^{\text {a } 126 . ~}$ | a | ${ }^{\text {a } 146 . ~}$ | c | 166. | b |
| 47. | b | 67. | c | 87. | a | 107. | b | ${ }^{\text {a } 127 .}$ | d | ${ }^{\text {a } 147 .}$ | c | 167. | c |
| 48. | c | 68. | d | 88. | d | 108. | b | ${ }^{\text {a } 128 . ~}$ | c | ${ }^{\text {a } 148 .}$ | c | 168. | d |
| 49. | a | 69. | b | 89. | b | 109. | c | ${ }^{\text {a } 129 .}$ | b | ${ }^{\text {a } 149 .}$ | d | 169. | d |
| 50. | a | 70. | c | 90. | d | 110. | b | ${ }^{\text {a } 130 .}$ | b | ${ }^{\text {a } 150 .}$ | c |  |  |
| 51. | b | 71. | a | 91. | c | 111. | c | ${ }^{\text {a } 131 .}$ | c | ${ }^{\text {a } 151 .}$ | b |  |  |
| 52. | a | 72. | d | 92. | b | 112. | a | ${ }^{\text {a } 132 .}$ | b | ${ }^{\text {a } 152 . ~}$ | b |  |  |
| 53. | d | 73. | b | 93. | b | 113. | a | ${ }^{\text {a } 133 .}$ | c | ${ }^{\text {a } 153 .}$ | b |  |  |
| 54. | b | 74. | b | 94. | d | 114. | d | ${ }^{\text {a } 134 .}$ | b | 154. | d |  |  |
| 55. | d | 75. | a | 95. | c | 115. | c | ${ }^{\text {a } 135 .}$ | a | 155. | b |  |  |
| 56. | b | 76. | c | 96. | a | 116. | a | ${ }^{\text {a } 136 .}$ | c | 156. | d |  |  |
| 57. | a | 77. | c | 97. | d | 117. | c | ${ }^{\text {a } 137 .}$ | c | 157. | a |  |  |
| 58. | b | 78. | b | 98. | c | 118. | d | ${ }^{\text {a } 138 .}$ | b | 158. | d |  |  |

## BRIEF EXERCISES

## BE 170

Dayton Inc. is considering two alternatives to finance its construction of a new $\$ 5$ million plant.
(a) Issuance of 500,000 shares of common stock at the market price of $\$ 10$ per share.
(b) Issuance of $\$ 5$ million, $9 \%$ bonds at par.

## Instructions

Complete the following table.

|  | $\frac{\text { Issue Stock }}{\$ 2,000,000}$ | Issue Bonds <br> Income before interest and taxes |
| :--- | :--- | :--- |
| Interest expense from bonds | - | - |
| Income before income taxes | $\$$ | $\$$ |
| Income tax expense (30\%) | - |  |
| Net income | $\$$ | $\$$ |

Outstanding shares $\qquad$ 700,000

## Earnings per share

$\qquad$
$\qquad$
Ans: N/A, LO: 1, Bloom: AP, Difficulty: Hard, Min: 5, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution 170 (5 min.)

|  | Issue Stock | Issue Bonds |
| :---: | :---: | :---: |
| Income before interest and taxes | \$2,000,000 | \$2,000,000 |
| Interest (\$5,000,000 $\times 9 \%$ ) | 0 | 450,000 |
| Income before income taxes | 2,000,000 | 1,550,000 |
| Income tax expense (30\%) | 600,000 | 465,000 |
| Net income (a) | \$1,400,000 | \$1,085,000 |
| Outstanding shares (b) | 1,200,000 | 700,000 |
| Earnings per share (a) $\div(\mathrm{b})$ | \$1.17 | \$1.55 |

## BE 171

On January 1, 2014, Maris Enterprises issued 9\%, 5-year bonds with a face amount of \$800,000 at par. Interest is payable semiannually on June 30 and December 31.

## Instructions

Prepare the entries to record the issuance of the bonds and the first semiannual interest payment.

Ans: N/A, LO: 2, Bloom: AP, Difficulty: Medium, Min: 4, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA
Solution 171 ( 4 min .)
Jan. 1 Cash ................................................................................... 800,000
June 30 Interest Expense 36,000

$$
\begin{aligned}
& \text { Cash.......................................................... } \quad 36,000 \\
& (\$ 800,000 \times .09 \div 2=\$ 36,000)
\end{aligned}
$$

## BE 172

On January 1, 2014, Borse Company issued bonds with a face value of $\$ 800,000$. The bonds carry a stated interest of $7 \%$ payable each January 1 and July 1.

## Instructions

a. Prepare the journal entry for the issuance assuming the bonds are issued at 95 .
b. Prepare the journal entry for the issuance assuming the bonds are issued at 105.

Ans: N/A, LO: 2, Bloom: AP, Difficulty: Medium, Min: 5, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution 172 (5 min.)

| (a) | Cash.. | 760,000 |  |
| :---: | :---: | :---: | :---: |
|  | Discount on Bonds Payable. | 40,000 |  |
|  | Bonds Payable. |  | 800,000 |
| (b) | Cash. | 840,000 |  |
|  | Bonds Payable. |  | 800,000 |
|  | Premium on Bonds Payable.................................... |  | 40,000 |

BE 173
On July 1, 2014, Fogg Corporation issued \$600,000, 8\%, 10-year bonds at face value. Interest is payable semiannually on January 1 and July 1 . Fogg Corporation has a calendar year end.

## Instructions

Prepare all entries related to the bond issue for 2014.

## Ans: N/A, LO: 2, Bloom: AP, Difficulty: Medium, Min: 4, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

## Solution 173 (4 min.)

2014
Jul. 1 Cash ................................................................................... 600,000
Bonds Payable
600,000
Dec. 31 Interest Expense
24,000
Interest Payable
24,000

## BE 174

On January 1, 2014, Moon Enterprises sold 8\%, 20-year bonds with a face amount of \$1,000,000 for $\$ 950,000$. Interest is payable semiannually on July 1 and January 1.

## Instructions

Calculate the carrying value of the bond at December 31, 2014 and 2015.
Ans: N/A, LO: 2,9, Bloom: AP, Difficulty: Medium, Min: 5, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution 174 (5 min.)
Annual amortization of discount: $\$ 50,000 \div 20=\$ 2,500$
December 31, 2014: \$1,000,000 - (\$50,000 - \$2,500) = \$952,500
December 31, 2015: \$1,000,000 - (\$50,000 - \$5,000) = \$955,000

## BE 175

King Company issued bonds with a face amount of $\$ 1,600,000$ in 2009. As of January 1, 2014, the balance in Discount on Bonds Payable is $\$ 4,800$. At that time, King redeemed the bonds at 102.

## Instructions

Assuming that no interest is payable, make the entry to record the redemption.
Ans: N/A, LO: 3, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution 175 (3 min.)
Jan. 1 Bonds Payable $\qquad$
Loss on Bond Redemption ................................................... 36,800
Discount on Bonds Payable ......................................... 4,800
Cash ............................................................................ 1,632,000

## BE 176

Proxy Inc. issues a $\$ 1,300,000,10 \%$, 10-year mortgage note on December 31, 2014, to obtain financing for a new building. The terms provide for semiannual installment payments of \$106,291.

## Instructions

Prepare the entry to record the mortgage loan on December 31, 2014, and the first installment payment.

Ans: N/A, LO: 4, Bloom: AP, Difficulty: Medium, Min: 5, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem
Solving, IMA: FSA
Solution 176 (5 min.)
Dec. 31 Cash................................................................................. 1,300,000
Mortgage Payable ..................................................... 1,300,000
June 30 Interest Expense............................................................... 65,000
Mortgage Payable.............................................................. 41,291
Cash
106,291

## BE 177

Aire Corporation reports the following selected financial statement information at December 31, 2014:

| Total Assets | $\$ 120,000$ |
| :--- | ---: |
| Total Liabilities | 75,000 |
| Net Income | 20,000 |
| Interest Revenue | 1,600 |
| Interest Expense | 800 |
| Income Tax Expense | 400 |

## Instructions

Calculate the debt to assets and times interest earned ratios.
Ans: N/A, LO: 6, Bloom: AP, Difficulty: Medium, Min: 4, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution 177 (4 min.)
Debt to assets: $\$ 75,000 \div \$ 120,000=62.5 \%$
Times interest earned: $(\$ 20,000+\$ 800+\$ 400) \div \$ 800=26.5$ times

## BE 178

On January 1, 2014, Trapp Enterprises issued 9\%, 10-year bonds with a face amount of $\$ 900,000$ at 96 . Interest is payable semiannually on June 30 and December 31. The bonds were issued for an effective interest rate of $10 \%$.

## Instructions

Prepare the entries to record the issuance of the bonds and the first semiannual interest payment assuming that the company uses effective-interest amortization.

Ans: N/A, LO: 8, Bloom: AP, Difficulty: Medium, Min: 5, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution 178 (5 min.)

| Jan. 1 | Cash. | $\begin{array}{r} 864,000 \\ 36,000 \end{array}$ | 900,000 |
| :---: | :---: | :---: | :---: |
|  | Discount on Bonds Payable |  |  |
|  | Bonds Payable $\qquad$ $(\$ 900,000 \times .96=\$ 864,000)$ |  |  |
| June 30 | Interest Expense. | 43,200 |  |
|  | Discount on Bonds Payable |  | 2,700 |
|  | Cash.................................. |  | 40,500 |
|  | $(\$ 864,000 \times .10 \div 2=\$ 43,200)$ |  |  |
|  | (\$900,000 $\times .09 \div 2=\$ 40,500)$ |  |  |

## BE 179

On January 1, 2014, Morgan Enterprises issued 8\%, 20-year bonds with a face amount of $\$ 5,000,000$ at 101. Interest is payable semiannually on June 30 and December 31.

## Instructions

Prepare the entries to record the issuance of the bonds and the first semiannual interest payment assuming that the company uses straight-line amortization.

## Solution 179 (5 min.)

June 30 Interest Expense.............................................................. 198,750
Premium on Bonds Payable
1,250
Cash
200,000
$(\$ 5,000,000 \times .08 \div 2=\$ 200,000)$ $(\$ 50,000 \div 40=\$ 1,250)$
50,000
5,000,000
Bonds Payable

$$
(\$ 5,000,000 \times 1.01=\$ 5,050,000)
$$

## EXERCISES <br> EXERCISES

## Ex. 180

Loren Company is considering two alternatives to finance its purchase of a new $\$ 4,000,000$ office building.
(a) Issue 400,000 shares of common stock at $\$ 10$ per share.
(b) Issue $7 \%, 10$-year bonds at par $(\$ 4,000,000)$.

Income before interest and taxes is expected to be $\$ 3,500,000$. The company has a $30 \%$ tax rate and has 600,000 shares of common stock outstanding prior to the new financing.

## Instructions

Calculate each of the following for each alternative:
(1) Net income.
(2) Earnings per share.

Ans: N/A, LO: 1, Bloom: AP, Difficulty: Hard, Min: 12, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution 180 (12-15 min.)

Income before interest and taxes
Interest (7\% × \$4,000,000)
Income before income taxes
Income tax expense
(1) Net income

Shares outstanding
(2) Earnings per share

| (a) Issue Stock | (b) Issue Bonds |
| :---: | :---: |
| \$3,500,000 | \$3,500,000 |
| - | 280,000 |
| 3,500,000 | 3,220,000 |
| 1,050,000 | 966,000 |
| \$2,450,000 | \$2,254,000 |

1,000,000
$\$ 2.45$

## Ex. 181

The board of directors of Les Corporation is considering two plans for financing the purchase of new plant equipment. Plan \#1 would require the issuance of $\$ 5,000,000,6 \%, 20$-year bonds at face value. Plan \#2 would require the issuance of 100,000 shares of $\$ 5$ par value common stock which is selling for $\$ 50$ per share on the open market. Les Corporation currently has 100,000 shares of common stock outstanding and the income tax rate is expected to be $35 \%$. Assume that income before interest and income taxes is expected to be $\$ 500,000$ if the new factory equipment is purchased.

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## Ex. 181 (Cont.)

## Instructions

Prepare a schedule which shows the expected net income after taxes and the earnings per share on common stock under each of the plans that the board of directors is considering.

Ans: N/A, LO: 1, Bloom: AN, Difficulty: Medium, Min: 10, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution 181 (10-12 min.)

|  | Plan \#1 <br> Issue Bonds | Plan \#2 |
| :--- | ---: | ---: |
| $\$ 500,000$ | Issue Stock |  |
| Income before interest and taxes | $\underline{300,000}$ |  |
| Interest expense $(\$ 5,000,000 \times 6 \%)$ | $\underline{000,000}$ |  |
| Income before taxes | $\underline{500,000}$ |  |
| Income taxes $(35 \%)$ | $\underline{\$ 130,000}$ | $\underline{175,000}$ |
| Net income | $\underline{\$ 325,000}$ |  |
| Outstanding shares | 100,000 | 200,000 |
| Earnings per share | $\underline{\$ 1.30}$ | $\underline{\$ 1.63}$ |

## Ex. 182

Zohan Health is considering two alternatives for the financing of some high technology medical equipment. These two alternatives are:

1. Issue 60,000 shares of $\$ 10$ par value common stock at $\$ 50$ per share.
2. Issue $\$ 3,000,000,8 \%, 10$-year bonds at par.

It is estimated that the company will earn $\$ 900,000$ before interest and taxes as a result of acquiring the medical equipment. The company has an estimated tax rate of $40 \%$ and has 80,000 shares of common stock outstanding prior to the new financing.

## Instructions

Determine the effect on net income and earnings per share for these two methods of financing.
Ans: N/A, LO: 1, Bloom: AN, Difficulty: Medium, Min: 10, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution 182 (10-15 min.)
The alternative effects on net income and earnings per share are as follows:

|  | Issue Stock |  | Issue Bonds |
| :--- | ---: | ---: | ---: |
| Income before interest and taxes | $\$ 900,000$ |  | $\$ 900,000$ |
| Interest (8\% $\times \$ 3,000,000)$ | - |  | $(240,000)$ |
| Income before income taxes | $\underline{900,000}$ |  | 660,000 |
| Income tax expense | $\underline{(360,000)}$ |  | $\underline{(264,000)}$ |
| Net income | $\underline{\$ 540,000}$ |  | $\underline{\$ 396,000}$ |
| Outstanding shares | 140,000 |  | 80,000 |
| Earnings per share | $\underline{\$ 3.86}$ | $\underline{\$ 4.95}$ |  |

Net income is higher if the equipment is financed through the issuance of stock. However, earnings per share is lower because of the additional number of shares of common stock that are outstanding.

## Ex. 183

Three plans for financing a $\$ 20,000,000$ corporation are under consideration by its organizers. Under each of the following plans, the securities will be issued at their par or face amount and the income tax rate is estimated at $30 \%$.

|  | Plan 1 | Plan 2 | Plan 3 |
| :---: | :---: | :---: | :---: |
| 9\% Bonds | - | - | \$10,000,000 |
| 6\% Preferred Stock, \$100 par | - | \$10,000,000 | 5,000,000 |
| Common Stock, \$10 par | \$20,000,000 | 10,000,000 | 5,000,000 |
| Total | \$20,000,000 | \$20,000,000 | \$20,000,000 |

It is estimated that income before interest and taxes will be $\$ 5,000,000$.

## Instructions

Determine for each plan, the expected net income and the earnings per share on common stock.
Ans: N/A, LO: 1, Bloom: AN, Difficulty: Hard, Min: 14, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution 183 (14-19 min.)

|  | Plan 1 | Plan 2 | Plan 3 |
| :---: | :---: | :---: | :---: |
| Earnings before interest and income tax | \$5,000,000 | \$5,000,000 | \$5,000,000 |
| Deduct interest on bonds | - | - | $(900,000)$ |
| Income before income tax | 5,000,000 | 5,000,000 | 4,100,000 |
| Deduct income tax | (1,500,000) | (1,500,000) | (1,230,000) |
| Net Income | 3,500,000 | 3,500,000 | 2,870,000 |
| Dividends on preferred stock |  | $(600,000)$ | $(300,000)$ |
| Available for dividends on common stock | \$3,500,000 | \$2,900,000 | \$2,570,000 |
| Shares of common stock outstanding | 2,000,000 | 1,000,000 | 500,000 |
| Earnings per share on common stock | \$1.75 | \$2.90 | \$5.14 |

## Ex. 184

Malay Corporation issued \$2 million, 10-year, 6\% bonds on January 1, 2014.

## Instructions

Prepare the entry to record the sale of these bonds, assuming they were issued at
(a) 98.
(b) 103.

Ans: N/A, LO: 2, Bloom: AP, Difficulty: Medium, Min: 5, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem
Solving, IMA: FSA
Solution 184 (5-7 min.)
(a) Cash (\$2,000,000 $\times 98 \%$ ) ..... 1,960,000
Discount on Bonds Payable ..... 40,000Bonds Payable
$\qquad$
2,000,000
(b) Cash (\$2,000,000 $\times 103 \%$ ) ..... 2,060,000Bonds Payable2,000,000Premium on Bonds Payable60,000

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## Ex. 185

On January 1, 2014, Gunne Corporation issued $\$ 800,000$, $8 \%$, 10 -year bonds at face value. Interest is payable semiannually on July 1 and January 1. Gunne Corporation has a calendar year end.

## Instructions

Prepare all entries related to the bond issue for 2014.
Ans: N/A, LO: 2, Bloom: AN, Difficulty: Medium, Min: 6, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution 185 (6-10 min.)
2014
Jan. 1 Cash ....................................................................................................................................... 800,000
Bonds Payable .........
800,000
July 1 Interest Expense ............................................................... 32,000 Cash 32,000 $(\$ 800,000 \times 8 \% \times 1 / 2=\$ 32,000)$

Dec. 31 Interest Expense ............................................................... 32,000 Interest Payable 32,000

## Ex. 186

On January 1, Focus Corporation issued $\$ 500,000,6 \%, 5$-year bonds at face value. Interest is payable semiannually on July 1 and January 1.

## Instructions

Prepare journal entries to record the
(a) Issuance of the bonds.
(b) Payment of interest on July 1, assuming no previous accrual of interest.
(c) Accrual of interest on December 31.
Ans: N/A, LO: 2, Bloom: AP, Difficulty: Medium, Min: 8, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem
Solving, IMA: FSA Solving, IMA: FSA

Solution 186 (8 min.)


(c) Interest Expense......................................................................... 15,000

Interest Payable
15,000

## Ex. 187

The following section is taken from Greene Corp's balance sheet at December 31, 2013. Current liabilities Interest Payable \$ 90,000
Long-term liabilities Bonds Payable, 9\%, due January 1, 2018 ................. 2,000,000

Interest is payable semiannually on January 1 and July 1. The bonds are callable on any interest date.

## Instructions

(a) Journalize the payment of the bond interest on January 1, 2014.
(b) Assume that on January 1, 2012, after paying interest, Greene calls bonds having a face value of $\$ 800,000$. The call price is 106 . Record the redemption of the bonds.
(c) Prepare the entry to record the payment of interest on July 1, 2014, assuming no previous accrual of interest on the remaining bonds.

Ans: N/A, LO: 2,3, Bloom: AP, Difficulty: Medium, Min: 9, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

## Solution 187 (7-10 min.)

| (a) | Interest Payable | 90,000 |  |
| :---: | :---: | :---: | :---: |
|  | Cash |  | 90,000 |
| (b) | Bonds Payable | 800,000 |  |
|  | Loss on Bond Redemption | 48,000 |  |
|  | $\begin{aligned} & \text { Cash..................................... } \\ & (\$ 800,000 \times 1.06=\$ 848,000) \\ & (\$ 848,000-\$ 800,000=\$ 48,000) \end{aligned}$ |  | 848,000 |
| (c) | Interest Expense | 54,000 |  |
|  | Cash $([\$ 2,000,000-\$ 800,000] \times .09 \times 6 / 12=\$ 54,000)$ |  | 54,000 |

## Ex. 188

Sergei Company issued $\$ 400,000$ of bonds on January 1, 2014.

## Instructions

(a) Prepare the journal entry to record the redemption of the bonds at maturity, assuming the bonds were issued at 100.
(b) Prepare the journal entry to record the redemption of the bonds before maturity at 97. Assume the balance in Premium on Bonds Payable is $\$ 4,000$.
(c) Prepare the journal entry to record the conversion of the bonds into 15,000 shares of $\$ 10$ par value common stock. Assume the bonds were issued at par.

Ans: N/A, LO: 3, Bloom: AP, Difficulty: Medium, Min: 9, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

| Solution 188 (9-12 min.) |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Retirement of bonds at maturity |  |  |
| (a) | Bonds Payable .......................................................... | 400,000 |  |
|  | Cash.... |  | 400,000 |
|  | Retirement of bonds before maturity at 97 |  |  |
| (b) | Bonds Payable .................................................................. | 400,000 |  |
|  | Premium on Bonds Payable................................................ | 4,000 |  |
|  | Cash.. |  | 388,000 |
|  | Gain on Bond Redemption.............................................. |  | 16,000 |
|  | Conversion of bonds into common stock |  |  |
| (c) | Bonds Payable .................................................................... | 400,000 |  |
|  | Common Stock ............................................................. |  | 150,000 |
|  | Paid-in-Capital in Excess of Par...................................... |  | 250,000 |

## Ex. 189

Stengle Company retired \$500,000 face value, 9\% bonds on June 30, 2014 at 96. The carrying value of the bonds at the redemption date was $\$ 508,000$.

## Instructions

Prepare the journal entry to record the redemption of the bonds.
Ans: N/A, LO: 3, Bloom: AP, Difficulty: Medium, Min: 5, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem
Solving, IMA: FSA Solving, IMA: FSA

## Solution 189 (5-7 min.)

| Bonds Payable | 500,000 |  |
| :---: | :---: | :---: |
| Premium on Bonds Payable | 8,000 |  |
| Gain on Bond Redemption |  | 28,000 |
| Cash (\$500,000 $\times 96 \%$ ) |  | 480,000 |

## Ex. 190

Presented below are three independent situations:
(a) Ball Corporation purchased $\$ 380,000$ of its bonds on June 30, 2014, at 102 and immediately retired them. The carrying value of the bonds on the retirement date was $\$ 371,500$. The bonds pay semiannual interest and the interest payment due on June 30, 2014, has been made and recorded.
(b) Horton, Inc. purchased \$400,000 of its bonds at 96 on June 30, 2014, and immediately retired them. The carrying value of the bonds on the retirement date was $\$ 395,000$. The bonds pay semiannual interest and the interest payment due on June 30, 2014, has been made and recorded.
(c) Valley Company has $\$ 80,000,10 \%, 12$-year convertible bonds outstanding. These bonds were sold at face value and pay semiannual interest on June 30 and December 31 of each year. The bonds are convertible into 40 shares of Valley $\$ 4$ par value common stock for each $\$ 1,000$ par value bond. On December 31, 2014, after the bond interest has been paid, $\$ 30,000$ par value of bonds were converted. The market value of Valley's common stock was $\$ 38$ per share on December 31, 2014.

## Instructions

For each of the independent situations, prepare the journal entry to record the retirement or conversion of the bonds.
Ans: N/A, LO: 3, Bloom: AN, Difficulty: Medium, Min: 13, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA
Solution 190 (13-16 min.)
(a) June 30 Bonds Payable ........................................................... 380,000
Loss on Bond Redemption ......................................... 16,100
Discount on Bonds Payable.............................. 8,500
Cash............................................................... 387,600
$(\$ 380,000-\$ 371,500=\$ 8,500)$
$(\$ 380,000 \times 102 \%=\$ 387,600)$
(b) June 30 Bonds Payable ........................................................... 400,000
Discount on Bonds Payable.
5,000
Gain on Bond Redemption ................................ 11,000
Cash................................................................ 384,000
$(\$ 400,000-\$ 395,000=\$ 5,000)$
$(\$ 400,000 \times 96 \%=\$ 384,000)$
(c) Dec. 31 Bonds Payable .......................................................... 30,000
Common Stock ................................................ 4,800
Paid-in Capital in Excess of Par ....................... 25,200 $(\$ 4 \times 40 \times 30=\$ 4,800)$

## Ex. 191

Kirk Company issued a $\$ 3,500,000$, $10 \%$, 10-year mortgage note payable to finance the construction of a building at December 31, 2014. The terms provide for semiannual installment payments of $\$ 200,608$.

## Instructions

Prepare the entry to record:
(a) the mortgage loan on December 31, 2014.
(b) the first installment payment.

Ans: N/A, LO: 4, Bloom: AP, Difficulty: Medium, Min: 5, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution 191 (5-7 min.)
(a) Cash
Mortgage Payable
$3,500,000$
$3,500,000$
(b) Interest Expense (\$3,500,000 $\times 5 \%$ )............................................ 175,000
Mortgage Payable........................................................................ 25,608
Cash
200,608

## Ex. 192

Eve Corporation issues a $\$ 9,000,000,5 \%$, 20-year mortgage note payable on December 31, 2014, to obtain needed financing for the construction of a building addition. The terms provide for semiannual installment payments of $\$ 289,409$ on June 30 and December 31.

## Instructions

(a) Prepare the journal entries to record the mortgage loan on December 31, 2014, and the first installment payment.
(b) Will the amount of principal reduction in the second installment payment be more or less than with the first installment payment?

Ans: N/A, LO: 4, Bloom: AP, Difficulty: Medium, Min: 5, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution 192 (5-8 min.)
(a) Dec. 31 Cash..
Mortgage Payable
9,000,000
$\qquad$ 9,000,000
June 30 Interest Expense ....................................................... 225,000
Mortgage Payable
64,409
Cash
289,409 $(\$ 9,000,000 \times 5 \% \times 1 / 2=\$ 225,000)$
(b) The amount of principal reduction will increase with each installment payment.

## Ex. 193

Stuckey Company borrowed $\$ 800,000$ on January 1, 2014, by issuing $\$ 800,000$, $8 \%$ mortgage note payable. The terms call for semiannual installment payments of $\$ 60,000$ on June 30 and December 31.

## Instructions

(a) Prepare the journal entries to record the mortgage loan and the first two installment payments.
(b) Indicate the amount of mortgage note payable to be reported as a current liability and as a long-term liability at December 31, 2014.

Ans: N/A, LO: 4, Bloom: AP, Difficulty: Medium, Min: 5, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

## Solution 193 (5-8 min.)



## December 31, 2014

## Interest Expense

(\$772,000 $\times 8 \% \times 6 / 12$ )
30,880
Solution 193 (Cont.)
Mortgage Payable .................................................................... 29,120
Cash...................................................................
60,000
(b) Current : $\$ 61,781$
$[\$ 60,000-(\$ 742,880 \times 8 \% \times 6 / 12)]+[\$ 60,000-(\$ 681,122 \times 8 \% \times 6 / 12)]$
Long-term: \$681,099 [(\$800,000 - \$28,000 - \$29,120) - \$56,960]

## Ex. 194

Presented below are three different aircraft lease transactions that occurred for Northwest Airways in 2014. All the leases start on January 1, 2014. In no case does Northern receive title to the aircraft during or at the end of the lease period; nor is there a bargain purchase option.

Type of property
Yearly rental
Lease term
Estimated economic life
Fair value of leased asset
Present value of lease rental payments

|  | Lessor |  |
| ---: | ---: | ---: |
| Yale Insurance | Nexcs Leasing | $\underline{\text { Banner Leasing }}$ |
| 747 Aircraft | 727 Aircraft | L-1011 Aircraft |
| $\$ 8,508,645$ | $\$ 6,357,660$ | $\$ 2,851,861$ |
| 15 years | 20 years | 15 years |
| 25 years | 25 years | 25 years |
| $\$ 80,000,000$ | $\$ 63,000,000$ | $\$ 32,000,000$ |
| $\$ 73,000,000$ | $\$ 54,000,000$ | $\$ 28,000,000$ |

## Instructions

(a) Which of the above leases are operating leases and which are capital leases? Explain your answer.
(b) How should the lease transaction with Yale Insurance be recorded in 2014?
(c) How should the lease transaction with Banner Leasing be recorded in 2014?

Ans: N/A, LO: 5, Bloom: AP, Difficulty: Hard, Min: 10, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Business Economics

## Solution 194 (10-14 min.)

(a) The Yale Insurance lease is a capital lease since it meets one of the four criteria; i.e., the present value of the lease payments exceeds $90 \%$ of the fair value of the leased asset. The Nexcs Leasing lease is a capital lease since the lease term, 20 years, exceeds $75 \%$ of the estimated economic life of the leased asset. The Banner Leasing lease is an operating lease since it meets none of the criteria.
(b) Leased Asset .......................................................................... 73,000,000

Lease Liability
$73,000,000$
Lease Liability
8,508,645
Cash
8,508,645
(c) Rent Expense......................................................................... 2,851,861

Cash

## 15-48 Test Bank for Accounting Principles, Eleventh Edition

## Ex. 195

Renth Corporation entered into the following transactions:

1. On January 1, 2014 Lee Car Rental leased a car to Renth Corporation for one year. Terms of the operating lease call for monthly payments of $\$ 650$.
2. On January 1, 2014, Renth Corporation entered into an agreement to lease 20 machines from Sweis Corporation. The terms of the lease agreement require an initial payment of \$500,000 and then three annual rental payments of $\$ 600,000$ beginning on December 31, 2014. The present value of the three rental payments is $\$ 1,492,108$. The lease is a capital lease.

## Instructions

Prepare the appropriate journal entries to be made by Renth Corporation in January related to the lease transactions.

Ans: N/A, LO: 5, Bloom: AP, Difficulty: Medium, Min: 5, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

## Solution 195 (5-7 min.)

## 2014

Jan. 1 Rental Expense ................................................................... 650
Cash
Leased Equipment................................................................ 1,992,108
Lease Liability ............................................................. $1,492,108$
Cash ........................................................................... 500,000

## Ex. 196

On January 1, 2014, Muddle Inc. entered into an agreement to lease equipment from Albert Corporation. The lease agreement requires five annual rental payments of \$90,000 beginning December 31, 2014. The present value of the rental payments is $\$ 342,117$. The lease transfers substantially all the benefits and risks of ownership to Muddle.

## Instructions

Prepare the entry to record the lease agreement on the books of Malcolm Inc. on January 1, 2014.

Ans: N/A, LO: 5, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution 196 (3 min.)
Jan. 1 Leased Equipment 342,117 Lease Liability 342,117

## Ex. 197

The adjusted trial balance for Katy Corporation at the end of 2014 contained the following accounts:

Bonds payable, 10\%......................................................... \$700,000
Interest payable ................................................................ 20,000
Discount on bonds payable................................................ 40,000
Lease liability .................................................................... 50,000
Mortgage notes payable, 9\%, due 2017.............................. 90,000
Accounts payable .............................................................. 120,000

## aEx. 197 (Cont.)

## Instructions

(a) Prepare the long-term liabilities section of the balance sheet.
(b) Indicate the proper balance sheet classification for the accounts listed above that do not belong in the long-term liabilities section.

Ans: N/A, LO: 6, Bloom: AP, Difficulty: Medium, Min: 4, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

## Solution 197 (4-7 min.)

(a) Long-term liabilities

| Bonds payable 10\% | $\$ 700,000$ |  |
| :--- | ---: | ---: |
| Less: bond discount | 40,000 | $\$ 660,000$ |
| Mortgage payable 9\% |  | 90,000 |
| Lease liability |  | 50,000 |
| Total long-term liabilities |  | $\underline{\$ 800,000}$ |

(b) Bond interest payable and accounts payable should be classified as current liabilities.

## Ex. 198

Trooper Corporation reports the following amounts in their 2014 financial statements:
At December 31, 2014 For the Year 2014

| Total assets | $\$ 2,000,000$ |  |
| :--- | :---: | ---: |
| Total liabilities | $1,310,000$ |  |
| Total stockholders' equity | $?$ |  |
| Interest expense |  | $\$ 25,000$ |
| Income tax expense |  | 130,000 |
| Net income |  | 150,000 |

## Instructions

(a) Compute the December 31, 2014, balance in stockholders' equity.
(b) Compute the debt to assets ratio at December 31, 2014.
(c) Compute times interest earned for 2014.

Ans: N/A, LO: 6, Bloom: AN, Difficulty: Hard, Min: 4, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution 198 (4-7 min.)
(a) Total assets .............................................................................. \$2,000,000

Less : Total liabilities ................................................................. $1,310,000$
Total stockholders' equity ........................................................... \$ 690,000
(b) Debt to assets ratio $=\frac{\text { Total liabilities }}{\text { Total assets }}=\frac{\$ 1,310,000}{\$ 2,000,000}=65.5 \%$
(c) Times interest earned $=\frac{\text { Net income }+ \text { Income tax expense }+ \text { Interest expense }}{\text { Interest expense }}$

$$
=\frac{\$ 150,000+\$ 130,000+\$ 25,000}{\$ 25,000}=12.2 \text { times }
$$

## 15-50 Test Bank for Accounting Principles, Eleventh Edition

${ }^{\text {a }}$ Ex. 199
Pug Corporation is issuing $\$ 600,000$ of $8 \%$, 5 -year bonds when potential bond investors want a return of $10 \%$. Interest is payable semiannually. The present value of 1 factors are $4 \%, .67556$ and $5 \%, .61391$. The present value of an annuity factors are $4 \%, 8.1109$ and $5 \%, 7.72173$.

## Instructions

Compute the market price (present value) of the bonds.
Ans: N/A, LO: 7, Bloom: AP, Difficulty: Medium, Min: 5, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution 199 (5-7 min.)
Present value of principal (\$600,000 × .61391) ................................... \$368,346

Market price of bonds $\qquad$ \$553,668
${ }^{\text {a }}$ Ex. 200
On January 1, 2014, Timber Corporation issued $\$ 800,000,6 \%, 5$-year bonds for $\$ 735,110$. The bonds were sold to yield an effective-interest rate of $8 \%$. Interest is paid semiannually on June 30 and December 31. The company uses the effective-interest method of amortization.

## Instructions

(a) Prepare a bond discount amortization schedule which shows the amortization of discount for the first two interest payment dates. (Round to the nearest dollar.)
(b) Prepare the journal entries that Timber Corporation would make on January 1, June 30, and December 31, 2014, related to the bond issue.

Ans: N/A, LO: 8, Bloom: AN, Difficulty: Hard, Min: 15, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA
${ }^{\text {a }}$ Solution 200 (15-22 min.)
(a)

TIMBER CORPORATION
Bond Discount Amortization
Effective-Interest Method—Semiannual Interest Payments 6\% Bonds Issued at 8\%

| Interest Periods | Interest to be Paid | Interest Expense | Discount Amortization | Unamortized Discount | Carrying Value of Bonds |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1/01/14 | (Issue date) |  |  | \$64,890 | \$735,110 |
| 6/30/14 | \$24,000 | \$29,404 | 5,404 | 59,486 | 740,514 |
| 12/31/14 | 24,000 | 29,621 | 5,621 | 53,865 | 746,135 |

(b)

January 1, 2014
Cash
735,110
Discount on Bonds Payable. 64,890
Bonds Payable.
800,000
(To record issuance of bonds at a discount)

## aSolution 200 (Cont.)

June 30, 2014
Bond Interest Expense
29,404
Discount on Bonds Payable
5,404
Cash
(To record payment of interest and amortization of discount)

December 31, 2014
Bond Interest Expense 29,621
Discount on Bonds Payable
5,621
Cash
(To record payment of interest and amortization of discount)
${ }^{a} E x .201$
On June 30, 2014, Lipton, Inc. sold \$3,000,000 (face value) of bonds. The bonds are dated June 30, 2014, pay interest semiannually on December 31 and June 30, and will mature on June 30, 2017. The following schedule was prepared by the accountant for 2014.

| Semi-Annual Interest Period | Interest to be Paid | Interest Expense | Amortization | Unamortized Amount | Bond Carrying Value |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | \$75,000 | \$2,936,625 |
| 1 | \$120,000 | \$131,625 | \$11,625 | 63,375 | 1,936,625 |

## Instructions

On the basis of the above information, answer the following questions. (Round your answer to the nearest dollar or percent.)

1. What is the stated interest rate for this bond issue?
2. What is the market interest rate for this bond issue?
3. What was the selling price of the bonds as a percentage of the face value?
4. Prepare the journal entry to record the sale of the bond issue on June 30, 2014.
5. Prepare the journal entry to record the payment of interest and amortization on December 31, 2014.

Ans: N/A, LO: 8, Bloom: AN, Difficulty: Medium, Min: 12, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA
aSolution 201 (12-17 min.)

1. $\$ 120,000 \div \$ 3,000,000=.04 \times 2=8 \%$
2. $\$ 131,625 \div \$ 2,925,000=.045 \times 2=9 \%$
3. $\$ 2,925,000 \div \$ 3,000,000=.975$ The bonds sold at 97.5 .
4. 

June 30, 2014
Cash ............................................................................................ 2,925,000
Discount on Bonds Payable .......................................................... 75,000
Bonds Payable

## 15-52 Test Bank for Accounting Principles, Eleventh Edition

aSolution 201 (Cont.)
5.

December 31, 2014
Interest Expense 131,625
Discount on Bonds Payable
Cash
${ }^{\mathrm{a}}$ Ex. 202
On January 1, 2014, Sunset Corporation issued $\$ 4,000,000,8 \%, 5$-year bonds dated January 1, 2014, at 95 . The bonds pay semiannual interest on January 1 and July 1 . The company uses the straight-line method of amortization and has a calendar year end.

## Instructions

Prepare all the journal entries that Sunset Corporation would make related to this bond issue through January 1, 2015. Be sure to indicate the date on which the entries would be made.

Ans: N/A, LO: 9, Bloom: AN, Difficulty: Medium, Min: 8, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA
asolution 202 (8-12 min.)
January 1, 2014
Cash......................................................................................... 3,800,000
Discount on Bonds Payable....................................................... 200,000
Bonds Payable
4,000,000
(To record sale of bonds at a discount)
July 1, 2014
Interest Expense........................................................................ 180,000
Discount on Bonds Payable
20,000
Cash 160,000
(To record semiannual payment of interest and amortization of discount)

December 31, 2014
Interest Expense
180,000
Discount on Bonds Payable
20,000
Interest Payable
160,000
(To record accrued bond interest and amortization of bond discount)

January 1, 2015
Interest Payable.......................................................................... 160,000
Cash 160,000
(To record payment of bond interest liability)
aEx. 203
Capital Company issued $\$ 600,000,10 \%$, 20-year bonds on January 1, 2014, at 103. Interest is payable semiannually on July 1 and January 1. Capital uses the straight-line method of amortization and has a calendar year end.

## Instructions

Prepare all journal entries made in 2014 related to the bond issue.
Ans: N/A, LO: 9, Bloom: AN, Difficulty: Medium, Min: 8, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA
asolution 203 (8-12 min.)
Jan. 1 Cash................................................................................. 618,000
Bonds Payable......................................................... 600,000

Premium on Bonds Payable...................................... 18,000
July 1 Interest Expense............................................................... 29,550
Premium on Bonds Payable ............................................... 450
Cash
30,000
$(\$ 600,000 \times 10 \% \times 1 / 2=\$ 30,000)$ $(\$ 18,000 \times 1 / 40=\$ 450)$

Dec. 31 Interest Expense................................................................ 29,550
Premium on Bonds Payable ............................................... 450
Interest Payable
30,000 $(\$ 600,000 \times 10 \% \times 1 / 2=\$ 30,000)$
aEx. 204
Mystle Company issued $\$ 500,000$, $8 \%$, 10-year bonds on December 31, 2014, for $\$ 470,000$. Interest is payable semiannually on June 30 and December 31. Mystle uses the straight-line method of amortization and has a calendar year end.

## Instructions

Prepare the appropriate journal entries on
(a) December 31, 2014.
(b) June 30, 2015.

Ans: N/A, LO: 9, Bloom: AN, Difficulty: Medium, Min: 8, AACSB: Analytic, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA
asolution 204 (8-12 min.)
(a)

Dec. 31 Cash ........................................................................ 470,000
2014
Discount on Bonds Payable ...................................... 30,000
Bonds Payable
500,000
(b)

2015


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## COMPLETION STATEMENTS

## 205. Bonds that mature at a single specified future date are called <br> $\qquad$ bonds, whereas bonds that mature in installments are called <br> $\qquad$ bonds.

Ans: N/A, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
206. The terms of a bond issue are set forth in a formal legal document called a bond
$\qquad$ .

Ans: N/A, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
207. Unsecured bonds that are issued against the general credit of the borrower are called
$\qquad$ bonds.

Ans: N/A, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
208. If bonds were issued at a premium, then the contractual interest rate was $\qquad$ than the market interest rate.

Ans: N/A, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
209. Discount on Bonds Payable is $\qquad$ (from)(to) bonds payable on the balance sheet. Premium on Bonds Payable is $\qquad$ (from)(to) bonds payable on the balance sheet.

Ans: N/A, LO: 2, Bloom: AP, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
210. If bonds are issued at face value (par), it indicates that the $\qquad$ interest rate must be equal to the $\qquad$ interest rate.

Ans: N/A, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
211. If a $\$ 1$ million, $10 \%, 10$-year bond issue was sold at 98 , the cash proceeds from the issuance of the bonds amounted to \$ $\qquad$ .

Ans: N/A, LO: 2, Bloom: AP, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
212. When bonds are converted into common stock and the conversion is recorded, the
$\qquad$ of the bonds is transferred to paid-in capital accounts.

Ans: N/A, LO: 3, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
213. A lease may be classified as an $\qquad$ lease or as a $\qquad$ lease.

Ans: N/A, LO: 5, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
${ }^{2}$ 214. The market price of a bond is obtained by discounting to its present value the __ paid at maturity, and all $\qquad$ payments to be made over the term of the bond.

Ans: N/A, LO: 7, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
a215. When there is a $\qquad$ difference between the straight-line and effectiveinterest methods of amortization, the $\qquad$ method is required under GAAP.

Ans: N/A, LO: 8, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
${ }^{2}$ 216. A method of amortizing bond discount or premium that allocates an equal amount each period is the $\qquad$ method.

Ans: N/A, LO: 9, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
a 217. The straight-line method of amortization allocates the same amount to $\qquad$ in each interest period.

Ans: N/A, LO: 9, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: None, IMA: FSA

## Answers to Completion Statements

| 205. | term, serial | 212. | carrying value |
| :--- | :--- | :--- | :--- |
| 206. | indenture | 213. | operating, capital |
| 207. | debenture | a214. | principal, interest |
| 208. | greater | a215. | material, effective-interest |
| 209. deducted, added | a216. | straight-line |  |
| 210. stated (contractual), market (effective) | a217. | interest expense |  |
| 211. 980,000 |  |  |  |

## MATCHING

218. Match the items below by entering the appropriate code letter in the space provided.
A. Serial bonds
G. Straight-line method of amortization
B. Debenture bonds
H. Bonds
C. Bond indenture
D. Premium on bonds payable
I. Debt to total assets ratio
E. Discount on bonds payable
J. Capital lease
K. Operating lease
F. Effective-interest method of amortization
L. Registered bonds
219. A contractual arrangement which is in effect a purchase of property.
$\qquad$ 2. A legal document that sets forth the terms of a bond issue.
$\qquad$ 3. Bonds that mature in installments.
$\qquad$ a4. Produces a periodic interest expense equal to a constant percentage of the carrying value of the bonds.
$\qquad$ 5. Bonds issued in the name of the owner.
$\qquad$ 6. A form of interest-bearing notes payable used by corporations.
220. Occurs when the contractual interest rate is greater than the market interest rate.

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$\qquad$ 8. Unsecured bonds issued against the general credit of the borrower.
$\qquad$ 9. A contractual arrangement that gives the lessee temporary use of property.
$\qquad$ 10. A solvency measure that indicates the percentage of assets provided by creditors.
$\qquad$ 11. Occurs when the contractual interest rate is less than the market interest rate.
$\qquad$ ${ }^{\text {a }}$ 12. Produces a periodic interest expense that is the same amount each interest period.
Ans: N/A, LO: 1, 2, 5, Bloom: , Difficulty: Easy, Min: 8, AACSB: None, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting

## Answers to Matching

| 1. | J | 7. | D |
| ---: | :--- | ---: | :--- |
| 2. | C | 8. | B |
| 3. | A | 9. | K |
| a. | F | 10. | I |
| 5. | L | 11. | E |
| 6. | H | $a 12$. | G |

## SHORT-ANSWER ESSAY QUESTIONS

## S-A E 219

Bonds are frequently issued at amounts greater or less than face value. Describe how the market interest rate, relative to the contractual interest rate, affects the selling price of bonds. Also explain the rationale for requiring an investor to pay accrued interest when a bond is purchased between interest payment dates.

Ans: N/A, LO: 2, Bloom:, Difficulty: Medium, Min: 5, AACSB: Communication, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Communications, IMA: Reporting

## Solution 219

The market interest rate often is different from the contractual interest rate and therefore bonds are frequently issued at amounts greater or less than face value. When the market interest rate is higher than the contractual rate, investors can find better investments elsewhere and consequently there is less demand for the bonds. So to make the bonds more attractive the issue price will be lowered and the bonds will be issued at a discount. Conversely, if the market interest rate is less than the contractual rate there will be greater demand for the bonds because of the higher interest rate. Thus, the issue price will be greater than face value and the bonds will be issued at a premium.

The investor is required to pay accrued interest because it allows the bond issuer to make the same interest payment to all bondholders on the same interest payment date. Otherwise the bond issuer would have to determine the interest payment for each bondholder based on how long that particular bond had been outstanding. Thus, the bond issuer does not have to maintain detailed records and saves bookkeeping costs.

## S-A E 220

A company desires to replace its current plant equipment with new equipment that costs $\$ 10,000,000$. One possibility would be for the company to issue $\$ 10,000,000$ of bonds and use the proceeds to purchase the equipment. Another possibility is to acquire the use of the equipment by signing a long-term capital lease with a leasing company. Describe and compare the financial statement effects of these two alternatives.

Ans: N/A, LO: 5, Bloom: , Difficulty: Medium, Min: 5, AACSB: Communication, AICPA BB: Legal/Regulatory, AICPA FN: Reporting, AICPA PC: Communications, IMA: Reporting

## Solution 220

The bond alternative will result in the balance sheet presentation of an asset (Equipment) and a long-term liability (Bonds Payable), which probably will have a corresponding liability valuation account (Premium or Discount on Bonds Payable). The income statement will show the interest expense from the payment of interest to the bondholder and the depreciation expense for the equipment.

The leasing alternative will result in the balance sheet presentation of a Leased Asset, recorded at the present value of the cash payments for the lease. The portion of the Lease Liability expected to be paid in the next year is reported as a current liability while the remainder is classified as a long-term liability. The income statement will show the interest expense, which is the financing cost, and since the lessee has essentially purchased the asset, the income statement will also show the depreciation expense.

## S-A E 221

When a bond sells at a discount, what is probably true about the market interest rate versus the stated interest rate? Discuss.

Ans: N/A, LO: 2, Bloom: , Difficulty: Medium, Min: 5, AACSB: Communication, AICPA BB: Legal/Regulatory, AICPA FN: Measurement, AICPA PC: Communications, IMA: Business Economics

## Solution 221

For someone to purchase a bond at a discount, the stated interest rate normally must be below the market interest rate for similar bonds. Investors will need to make up the difference by paying less than the face value for the bonds.

## S-A E 222

Bonds may be redeemed (retired) before maturity by the issuing corporation. Explain why a company would decide to retire bonds before maturity and the necessary steps to record the redemption.

Ans: N/A, LO: 3, Bloom: , Difficulty: Medium, Min: 5, AACSB: Communication, AICPA BB: Legal/Regulatory, AICPA FN: Decision Modeling, AICPA PC: Communications, IMA: Business Economics

## Solution 222

A company may decide to retire bonds before maturity to reduce interest cost and remove debt from its balance sheet. A company will retire debt early only if it has sufficient cash resources.

When bonds are retired before maturity, it is necessary to eliminate the carrying value of the bonds at the redemption date and recognize a gain or loss on redemption. The gain or loss is the difference between the cash paid and the carrying value of the bonds.

## S-A E 223

Tim Stihl and Matt Jaffney are discussing how the market price of a bond is determined. Tim believes that the market price of a bond is solely a function of the amount of the principal payment at the end of the term of a bond. Is he right? Discuss.

Ans: N/A, LO: 7, Bloom: , Difficulty: Medium, Min: 5, AACSB: Communication, AICPA BB: Legal/Regulatory, AICPA FN: Research, AICPA PC: Communications, IMA: Business Economics

## Solution 223

No, Tim is not right. The market price of any bond is a function of three factors: (1) The dollar amounts to be received by the investor (interest and principal), (2) The length of time until the amounts are received (interest payment dates and maturity date), and (3) The market interest rate.

S-A E 224
Sarah Mongan is discussing the advantages of the effective-interest method of bond amortization with her accounting staff. What do you think Sarah is saying?

Ans: N/A, LO: 8, Bloom: , Difficulty: Medium, Min: 5, AACSB: Communication, AICPA BB: Legal/Regulatory, AICPA FN: Decision Modeling, AICPA PC: Communications, IMA: Business Economics

## Solution 224

Sarah is probably indicating that since the borrower has the use of the bond proceeds over the term of the bonds, the borrowing rate in each period should be the same. The effective-interest method results in a varying amount of interest expense but a constant rate of interest on the balance outstanding. Accordingly, it results in a better matching of expenses with revenues than the straight-line method.

## S-A E 225 (Ethics)

Ton Janner, a 26-year-old entrepreneur, started Bells \& Whistles (B\&W), Inc., a firm that specializes in top-of-the-line add-ons for computer systems. The firm has a capital structure of approximately $60 \%$ debt. This was necessitated by the rapid growth of B\&W, and Mr. Janner's lack of personal funds to sustain the growth. The $60 \%$ debt amount is quite high for firms in this field, and in fact slightly exceeds the debt covenants negotiated with the bank. B\&W recently received notice that the bank considers the company's debt to be excessive, and that some accelerated repayment schedule will be adopted. The notice came at a particularly bad time. $B \& W$ is in the midst of a major upgrade of its own computer system. The hardware was to have been purchased outright, financed by the seller, Karl miner, longtime friend of Mr. Janner.

Mr. Miner really needs Mr. Janner's business. Both believe in the long-term strength of B\&W. He therefore suggests to Mr. Janner that the equipment be purchased by means of a short-term lease. Mr. Janner could renew the lease annually.

## Required:

1. Is Mr. Miner's suggestion ethical? Explain.
2. If Mr. Janner accepts the suggestion, is he behaving ethically? Explain.

Ans: N/A, LO: 5, Bloom: , Difficulty: Medium, Min: 5, AACSB: Communication, AICPA BB: Legal/Regulatory, AICPA FN: Decision Modeling, AICPA PC: Communications, IMA: Business Economics

## Solution 225

1. Mr. Miner's suggestion is ethical, at least on its face. Since a long-term lease is not possible, a short-term lease is a possibility. However, if there is some kind of agreement between the parties that essentially makes the lease a long-term one, it would not be ethical to treat it as a short-term lease for accounting purposes.
2. Since Mr. Miner's suggestion is ethical, Mr. Janner's acceptance of the suggestion is also ethical, with the same provisions. However, he should not accept the suggestion if his ability to pay Mr. Miner will be compromised by the accelerated repayment required by the bank.

## S-A E 226 (Communication)

Karen Kline works for Permier Press, a fairly large book publishing firm. Her best friend and rival, Mona, works for Copper Books, a smaller publisher. Both companies issue \$100,000 in bonds on July 1. Permier's bonds were issued at a discount, while Copper's were issued at a premium. Mona sent Karen a fax the next day. She told Karen that it was obvious who the better publisher was-the market had shown its preference! She reminded Karen again of her recent increase in salary as further proof of the superiority of Copper Books.

## Required:

Draft a short note for Karen to send to Mona. Explain how such a result could occur.
Ans: N/A, LO: 2, Bloom: , Difficulty: Medium, Min: 5, AACSB: Communication, AICPA BB: Industry/Sector, AICPA FN: Decision Modeling, AICPA PC: Communications, IMA: Business Economics

## Solution 226

Many answers are possible. The format should be fairly informal, and the point that a discount or premium is not necessarily a judgment on the strength or weakness of a company should be addressed. A suggested note follows:

## Mona-

I can't believe that Copper can survive with people like you handling their money! I also can't believe their lack of judgment in giving you a raise! Just kidding! Seriously, though, you can't prove that Permier is a bad company just by the bond price.

Our bonds were issued at a discount, not because of the market's evaluation of our company, but because we underestimated interest rates. Copper got a premium because it overestimated interest rates. You'll have to find some other evidence to prove your company is better, (which you can't, because it isn't).

Seriously (again), congratulations on your raise. Shall we still meet for lunch on Wednesday? How about trying our luck with chopsticks at the Chinese Panda? Let me know if your plans change.
(signed)

