# Test Bank for Managerial Accounting Tools for Business Decision Making 7th Edition Weygandt Kimmel Kieso 9781118334331 

Test Bank: https://testbankpack.com/p/test-bank-for-managerial-accounting-tools-for-business-decision-making-7th-edition-weygandt-kimmel-kieso9781118334331/

Solution Manual: https://testbankpack.com/p/solution-manual-for-managerial-accounting-tools-for-business-decision-making-7th-edition-weygandt-kimmel-kieso-9781118334331/

## CHAPTER 2

## JOB ORDER COSTING

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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Item | LO | BT | Item | LO | BT | Item | LO | BT | Item | LO | BT | Item | LO | BT |


| 1. | 1 | K | 8. | 1 | K | 15. | 1 | K | 22. | 3 | C | 29. | 5 | C |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2. | 1 | C | 9. | 1 | C | 16. | 1 | K | 23. | 3 | K | 30. | 5 | C |
| 3. | 1 | C | 10. | 1 | C | 17. | 2 | K | 24. | 3 | C | 31. | 1 | C |
| 4. | 1 | C | 11. | 1 | C | 18. | 2 | K | 25. | 4 | C | 32. | 1 | K |
| 5. | 1 | C | 12. | 1 | C | 19. | 2 | C | 26. | 4 | K | 33. | 2 | K |
| 6. | 1 | K | 13. | 1 | K | 20. | 2 | C | 27. | 4 | K | 34. | 3 | K |
| 7. | 1 | C | 14. | 1 | C | 21. | 2 | K | 28. | 4 | K | 35. | 5 | K |
| Multiple Choice Questions |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 36. | 1 | K | 59. | 2 | C | 82. | 3 | AP | 105. | 4 | C | 128. | 5 | C |
| 37. | 1 | K | 60. | 1 | C | 83. | 3 | AP | 106. | 4 | AP | 129. | 5 | C |
| 38. | 1 | K | 61. | 2 | K | 84. | 3 | AP | 107. | 4 | C | 130. | 5 | K |
| 39. | 1 | C | 62. | 2 | K | 85. | 3 | AP | 108. | 4 | C | 131. | 5 | C |
| 40. | 1 | C | 63. | 2 | AP | 86. | 3 | AP | 109. | 4 | C | 132. | 5 | AP |
| 41. | 1 | C | 64. | 2 | K | 87. | 3 | AP | 110. | 4 | C | 133. | 5 | C |
| 42. | 1 | C | 65. | 2 | C | 88. | 3 | AP | 111. | 4 | AP | 134. | 5 | C |
| 43. | 1 | C | 66. | 2 | K | 89. | 3 | C | 112. | 4 | AP | 135. | 5 | C |
| 44. | 1 | AP | 67. | 2 | K | 90. | 3 | K | 113. | 4 | AP | 136. | 5 | C |
| 45. | 1 | K | 68. | 2 | K | 91. | 3 | C | 114. | 4 | C | 137. | 5 | C |
| 46. | 1 | K | 69. | 2 | C | 92. | 3 | C | 115. | 4 | C | 138. | 5 | C |
| 47. | 1 | C | 70. | 2 | C | 93. | 3 | K | 116. | 4 | AP | 139. | 5 | C |
| 48. | 1 | K | 71. | 2 | K | 94. | 3 | AP | 117. | 4 | AP | 140. | 5 | C |
| 49. | 1 | C | 72. | 2 | K | 95. | 3 | C | 118. | 4 | AP | ${ }^{\text {st }} 141$. | 1 | K |
| 50. | 1 | C | 73. | 2 | C | 96. | 3 | K | 119. | 4 | AP | 142. | 1 | K |
| 51. | 1 | C | 74. | 2 | C | 97. | 3 | AP | 120. | 4 | AP | ${ }^{\text {st }} 143$. | 1 | K |
| 52. | 1 | K | 75. | 2 | K | 98. | 3 | AP | 121. | 4 | AP | 144. | 2 | K |
| 53. | 1 | C | 76. | 2 | AP | 99. | 3 | AP | 122. | 4 | AP | ${ }^{\text {st }} 145$. | 2 | K |
| 54. | 1 | K | 77. | 2 | AP | 100. | 3 | AP | 123. | 4 | AP | 146. | 3 | AP |
| 55. | 1 | K | 78. | 2 | AP | 101. | 3 | AP | 124. | 5 | AP | ${ }^{\text {st }} 147$. | 3 | K |
| 56. | , | AP | 79. | 2 | AP | 102. | 4 | AP | 125. | 5 | AP | 148. | 5 | C |
| 57. | 1 | K | 80. | 2 | AP | 103. | 4 | C | 126. | 5 | AP | ${ }^{\text {st }} 149$. | 5 | K |
| 58. | 2 | K | 81. | 3 | AP | 104. | 4 | C | 127. | 5 | C | 150. | 5 | K |
| Brief Exercises |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 151 | 1 | AP | 153. | 2 | AP | 155. | 3,5 | AP | 157. | 4 | AP | 159. | 5 | AP |
| 152 | 1 | AP | 154. | 2 | AP | 156. | 3 | AP | 158. | 5 | AP | 160. | 5 | AP |

${ }^{s t}$ This question also appears in a self-test at the student companion website.

## SUMMARY OF QUESTIONS BY LEARNING OBJECTIVES AND BLOOM'S TAXONOMY

| Exercises |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 161. | 1 | AP | 167. | 1-4 | AP | 173. | 1-5 | AP | 179. | 2,4 | AP | 185. | 4,6 | AP |
| 162. | 1-3 | C | 168. | 1-4 | AN | 174. | 1,2,5 | AP | 180. | 2,4,5 | AP | 186. | 4,6 | AP |
| 163. | 1-3 | AP | 169. | 1-4 | AP | 175. | 1-5 | AP | 181. | 3,5 | AP | 187. | 4 | AP |
| 164. | 1-3 | C | 170. | 1,2 | AP | 176. | 2 | AP | 182. | 3,5 | AP | 188. | 4 | AP |
| 165. | 1,2 | AP | 171. | 1-4 | AP | 177. | 2-4 | AN | 183. | 3 | AP |  |  |  |
| 166. | 1-4 | AP | 172. | 1,4 | AP | 178. | 2,4 | AP | 184. | 3,5 | AP |  |  |  |
| Completion Statements |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 189. | 1 | K | 191. | 1 | K | 193. | 1 | K | 195. | 2 | K | 197. | 5 | K |
| 190. | 1 | K | 192. | 1 | K | 194. | 2 | AP | 196. | 3 | K | 198. | 5 | K |
| Matching Statements |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 199. | 1 | K |  |  |  |  |  |  |  |  |  |  |  |  |
| Short-Answer Essay |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 200. | 1 | S | 202. | 3 | S | 204. | 2 | S |  |  |  |  |  |  |
| 201. | 1 | S | 203. | 3 | S | 205. | 3 | S |  |  |  |  |  |  |

SUMMARY OF LEARNING OBJECTIVES BY QUESTION TYPE

| Item ${ }^{\text {Type }}$ | Item | Type | Item | Type | Item | Type | Item | Type | Item | Type | Item | Type |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Learning Objective 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. TF | 11. | TF | 38. | MC | 48. | MC | 58. | MC | 163. | Ex | 173. | Ex |
| 2. TF | 12. | TF | 39. | MC | 49. | MC | 59. | MC | 164. | Ex | 175. | Ex |
| 3. TF | 13. | TF | 40. | MC | 50. | MC | 60. | MC | 165. | Ex | 189. | C |
| 4. TF | 14. | TF | 41. | MC | 51. | MC | 141. | MC | 166. | Ex | 190. | C |
| 5. TF | 15. | TF | 42. | MC | 52. | MC | 142. | MC | 167. | Ex | 191. | C |
| 6. TF | 16. | TF | 43. | MC | 53. | MC | 143. | MC | 168. | Ex | 192. | C |
| 7. TF | 31. | TF | 44. | MC | 54. | MC | 151. | BE | 169. | Ex | 193. | C |
| 8. TF | 32. | TF | 45. | MC | 55. | MC | 152. | BE | 170. | Ex | 199. | MA |
| 9. TF | 36. | MC | 46. | MC | 56. | MC | 161. | Ex | 171. | Ex | 200. | SA |
| 10. TF | 37. | MC | 47. | MC | 57. | MC | 162. | Ex | 172. | Ex | 201. | SA |
| Learning Objective 2 |  |  |  |  |  |  |  |  |  |  |  |  |
| 17. TF | 61. | MC | 69. | MC | 77. | MC | 162. | Ex | 170. | Ex | 179. | Ex |
| 18. TF | 62. | MC | 70. | MC | 78. | MC | 163. | Ex | 171. | Ex | 180. | Ex |
| 19. TF | 63. | MC | 71. | MC | 79. | MC | 164. | Ex | 173. | Ex | 194. | C |
| 20. TF | 64. | MC | 72. | MC | 80. | MC | 165. | Ex | 174. | Ex | 195. | C |
| 21. TF | 65. | MC | 73. | MC | 144. | MC | 166. | Ex | 175. | Ex | 204. | SA |
| 33. TF | 66. | MC | 74. | MC | 145. | MC | 167. | Ex | 176. | Ex |  |  |
| 58. MC | 67. | MC | 75. | MC | 153. | BE | 168. | Ex | 177. | Ex |  |  |
| 59. MC | 68. | MC | 76. | MC | 154. | BE | 169. | Ex | 178. | Ex |  |  |



## CHAPTER LEARNING OBJECTIVES

1. Describe cost systems and the flow of costs in job order system. Cost accounting involves the procedures for measuring, recording, and reporting product costs. From the data accumulated, companies determine the total cost and the unit cost of each product. The two basic types of cost accounting systems are job order cost and process cost. In job order costing, companies first accumulate manufacturing costs in three accounts: Raw Materials Inventory, Factory Labor, and Manufacturing Overhead. They then assign the accumulated costs to Work in Process Inventory and eventually to Finished Goods Inventory and Cost of Goods Sold.
2. Use a job cost sheet to assign costs to work in process. A job cost sheet is a form used to record the costs chargeable to a specific job and to determine the total and unit costs of the completed job. Job cost sheets constitute the subsidiary ledger for the Work in Process Inventory control account.
3. Demonstrate how to determine and use the predetermined overhead rate. The predetermined overhead rate is based on the relationship between estimated annual overhead costs and expected annual operating activity. This is expressed in terms of a common activity base, such as direct labor cost. Companies use this rate to assign overhead costs to work in process and to specific jobs.
4. Prepare entries for manufacturing and service jobs completed and sold. When jobs are completed, companies debit the cost to Finished Goods Inventory and credit it to Work in Process Inventory. When a job is sold the entries are: (a) Debit Cash or Accounts Receivable and credit Sales Revenue for the selling price, and (b) Debit Cost of Goods Sold and credit Finished Goods Inventory for the cost of the goods.
5. Distinguish between under- or overapplied manufacturing overhead. Underapplied manufacturing overhead indicates that the overhead assigned to work in process is less than the overhead incurred. Overapplied overhead indicates that the overhead assigned to work in process is greater than the overhead incurred.

## TRUE-FALSE STATEMENTS

1. Cost accounting is primarily concerned with accumulating information about product costs.

Ans: T, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
2. A job order cost system is most appropriate when a large volume of uniform products are produced.

Ans: F, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Reporting
3. A process cost accounting system is appropriate for similar products that are continuously mass produced.

Ans: T, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Reporting
4. The perpetual inventory method cannot be used in a job order cost system.

Ans: F, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Reporting
5. A job order cost system and a process cost system are two alternative methods for valuing inventories.

Ans: T, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
6. A job order cost system identifies costs with a particular job rather than with a set time period.

Ans: T, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
7. A company may use either a job order cost system or a process cost system, but not both.

Ans: F, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
8. Raw Materials Inventory, Factory Labor, and Manufacturing Overhead are all control accounts in the general ledger when a job order cost accounting system is used.

Ans: F, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
9. Accumulating and assigning manufacturing costs are two important activities in a job order cost system.

Ans: T, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
10. Recording the acquisition of raw materials is a part of accumulating manufacturing costs.

Ans: T, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
11. Manufacturing costs are generally incurred in one period and recorded in a subsequent period.

Ans: F, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
12. The Purchases account is credited for all raw materials purchase returns and allowances.

Ans: F, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
13. When raw materials are received, there is no effort at this point to associate the cost of materials with specific jobs.

Ans: T, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
14. When raw materials are purchased, the Work in Process Inventory account is debited.

Ans: F, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
15. Factory labor should be assigned to selling and administrative expenses on a proportionate basis.

Ans: F, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
16. Fringe benefits and payroll taxes associated with factory workers should be accumulated as a part of Factory Labor.

Ans: T, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None IMA: FSA
17. Job order cost sheets constitute the subsidiary ledger of the control account Work In Process Inventory.

Ans: T, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
18. In a job order cost system, each entry to the Work In Process Inventory account should be accompanied by a posting to one or more job cost sheets.

Ans: T, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
19. Direct materials requisitioned from the storeroom should be charged to the Work In Process Inventory account and the job cost sheets for the individual jobs on which the materials were used.

Ans: T, LO: 2, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
20. Manufacturing overhead is the only product cost that can be assigned to jobs as soon as the costs are incurred.

Ans: F, LO: 2, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
21. There should be a separate job cost sheet for each job.

Ans: T, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
22. Actual manufacturing overhead costs are assigned to each job by tracing each overhead cost to a specific job.
Ans: F, LO: 3, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: FSA
23. The formula for the predetermined overhead rate is estimated annual overhead costs divided by an expected annual operating activity.
Ans: T, LO: 3, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
24. Actual manufacturing overhead costs should be charged to the Work in Process Inventory account as they are incurred.

Ans: F, LO: 3, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
25. A good system of internal control requires that the job order cost sheet be destroyed as soon as the job is complete.

Ans: F, LO: 4, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Risk Management, AICPA PC: None, IMA: Internal Controls
26. Finished Goods Inventory is charged for the cost of jobs completed during a period.

Ans: T, LO: 4, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
27. When goods are sold, the Cost of Goods Sold account is debited and Work in Process Inventory account is credited.

Ans: F, LO: 4, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: FSA
28. Total manufacturing costs for a period consists of the costs of direct materials used, the cost of direct labor incurred, and the manufacturing overhead applied during the period.
Ans: T, LO: 4, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
29. Overapplied overhead means that actual manufacturing overhead costs were greater than the manufacturing overhead costs applied to jobs.
Ans: F, LO: 5, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
30. At the end of the year, the accountant credits the amount of the overapplied overhead to Cost of Goods Sold.

Ans: T, LO: 5, Bloom: C, Difficulty: Medium, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
31. A cost accounting system consists of manufacturing cost accounts that are fully integrated into the general ledger of a company.

Ans: T, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
32. The cost of raw materials purchased is credited to Raw Materials Inventory when materials are received.

Ans: F, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
33. Requisitions for direct materials are posted daily to the individual job cost sheets.

Ans: T, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: None, AICPA PC: None, IMA: Business Economics
34. The predetermined overhead rate is based on the relationship between estimated annual overhead costs and expected annual operating activity expressed in terms of a common activity base.

Ans: T, LO: 3, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
35. At the end of the year, underapplied overhead is usually credited to Cost of Goods Sold.

Ans: F, LO: 5, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, 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. | T | 6. | T | 11. | F | 16. | T | 21. | T | 26. | T | 31. | T |
| 2. | F | 7. | F | 12. | F | 17. | T | 22. | F | 27. | F | 32. | F |
| 3. | T | 8. | F | 13. | T | 18. | T | 23. | T | 28. | T | 33. | T |
| 4. | F | 9. | T | 14. | F | 19. | T | 24. | F | 29. | F | 34. | T |
| 5. | T | 10. | T | 15. | F | 20. | F | 25. | F | 30. | T | 35. | F |

## MULTIPLE CHOICE QUESTIONS

36. Which of the following is one of the components of cost accounting?
a. It involves measuring product costs.
b. It involves the determination of company profits.
c. It requires GAAP to be applied.
d. It requires cost minimizing principles.

Ans: A, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
37. A major purpose of cost accounting is to
a. classify all costs as operating or nonoperating.
b. measure, record, and report period costs.
c. provide information to stockholders for investment decisions.
d. measure, record, and report product costs.

Ans: D, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
38. The two basic types of cost accounting systems are
a. job order and job accumulation systems.
b. job order and process cost systems.
c. process cost and batch systems.
d. job order and batch systems.

Ans: B, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics
39. A process cost system would most likely be used by a company that makes
a. motion pictures.
b. repairs to automobiles.
c. breakfast cereal.
d. college graduation announcements.
40. Which of the following would be accounted for using a job order cost system?
a. The production of personal computers.
b. The production of automobiles.
c. The refining of petroleum.
d. The construction of a new campus building.

Ans: D, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
41. Process costing is used when
a. the production process is continuous.
b. production is aimed at filling a specific customer order.
c. dissimilar products are involved.
d. costs are to be assigned to specific jobs.

Ans: A, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
42. Process costing is not used when
a. similar goods are being produced.
b. large volumes are produced.
c. jobs have distinguishing characteristics.
d. a series of connected manufacturing processes is necessary.

Ans: C, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
43. An important feature of a job order cost system is that each job
a. must be similar to previous jobs completed.
b. has its own distinguishing characteristics.
c. must be completed before a new job is accepted.
d. consists of one unit of output.

Ans: B, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
44. As of December 31, 2017, Stand Still Industries had $\$ 2,500$ of raw materials inventory. At the beginning of 2017, there was $\$ 2,000$ of materials on hand. During the year, the company purchased $\$ 375,000$ of materials; however, it paid for only $\$ 312,500$. How much inventory was requisitioned for use on jobs during 2017?
a. $\$ 362,000$
b. $\$ 374,500$
c. $\$ 375,500$
d. $\$ 363,000$

Ans: B, LO: 1, Bloom: AP, Difficulty: Medium, Min: 2, AACSB: Analytic, AICPA BB: Resource Management, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Business Economics
45. The flow of costs in a job order cost system
a. involves accumulating manufacturing costs incurred and assigning the accumulated costs to work done.
b. cannot be measured until all jobs are complete.
c. measures product costs for a set time period.
d. generally follows a LIFO cost flow assumption.

Ans: A, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
46. In a job order cost accounting system, the Raw Materials Inventory account is
a. an expense.
b. a control account.
c. not used.
d. a period cost.

Ans: B, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
47. When a job is completed and all costs have been accumulated on a job cost sheet, the journal entry that should be made is
a. Finished Goods Inventory Direct Materials Direct Labor Manufacturing Overhead
b. Work In Process Inventory

Direct Materials Direct Labor Manufacturing Overhead
c. Raw Materials Inventory Work In Process Inventory
d. Finished Goods Inventory Work In Process Inventory

Ans: D, LO: 1, Bloom: C, Difficulty: Medium, Min: 2, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
48. The two major steps in the flow of costs are
a. allocating and assigning.
b. acquiring and accumulating.
c. accumulating and assigning.
d. accumulating and amortizing.

Ans: C, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
49. The Raw Materials Inventory account is
a. a subsidiary account.
b. debited for invoice costs and freight costs chargeable to the purchaser.
c. debited for purchase discounts taken.
d. debited for purchase returns and allowances.

Ans: B, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
50. Records of individual items of raw materials would not be maintained
a. electronically.
b. manually.
c. on stores ledger cards.
d. in the Raw Materials Inventory account.
51. Cost of raw materials is debited to Raw Materials Inventory when the
a. materials are ordered.
b. materials are received.
c. materials are put into production.
d. bill for the materials is paid.

Ans: B, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
52. Which of the following is not included in factory labor costs?
a. Gross earnings.
b. Employer payroll taxes.
c. Fringe benefits.
d. All of these are included.

Ans: D, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
53. All of the following would be entries in assigning accumulated costs to the Work In Process Inventory except:
a. the purchase of raw materials.
b. raw materials are used.
c. overhead is applied.
d. factory labor is used.

Ans: A, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
54. Factory labor costs
a. are accumulated in a control account.
b. do not include pension costs.
c. include vacation pay.
d. are based on workers' net pay.

Ans: C, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
55. Factory Labor is a(n)
a. expense account.
b. control account.
c. subsidiary account.
d. temporary account.

Ans: D, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
56. Kline Manufacturing has the following labor costs:
Factory-Gross wages
\$500,000
Factory-Net wages 420,000
Employer Payroll Taxes Payable 50,000

The entry to record the cost of factory labor and the associated payroll tax expense will include a debit to Factory Labor for
a. $\$ 550,000$.
b. $\$ 500,000$.
c. $\$ 470,000$.
d. $\$ 450,000$.
57. Factory labor costs
a. accumulate in advance of utilization.
b. accumulate in a control account.
c. include sick pay earned by factory workers.
d. accumulate in the Factory Labor Expense account.

Ans: C, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
58. Which of the following is not a control account?
a. Manufacturing Overhead
b. Raw materials inventory
c. Accounts Receivable
d. All fo these are control accounts

Ans: B, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics
59. Manufacturing Overhead would not have a subsidiary account for
a. utilities.
b. property taxes.
c. insurance.
d. raw materials inventory.

Ans: D, LO: 2, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics
60. The entry to record the acquisition of raw materials on account is
a. Work in Process Inventory

Accounts Payable
b. Manufacturing Overhead

Raw Materials Inventory Accounts Payable
c. Accounts Payable

Raw Materials Inventory
d. Raw Materials Inventory

Accounts Payable
Ans: D, LO: 1, Bloom: C, Difficulty: Medium, Min: 2, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA
61. Which one of the following best describes a job cost sheet?
a. It is a form used to record the costs chargeable to a specific job and to determine the total and unit costs of the completed job.
b. It is used to track manufacturing overhead costs to specific jobs.
c. It is used by management to understand how direct costs affect profitability.
d. It is a daily form that management uses for tracking worker productivity on which employee raises are based.

Ans: A, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
62. Job cost sheets constitute the subsidiary ledger for the
a. Finished Goods Inventory account.
b. Cost of Goods Sold account.
c. Work In Process Inventory account.
d. Cost of Goods Manufactured account.
63. A materials requisition slip showed that direct materials requested were $\$ 66,000$ and indirect materials requested were $\$ 9,000$. The entry to record the transfer of materials from the storeroom is

| a. Work In Process Inventory | 66,000 |  |
| :---: | :---: | :---: |
| Raw Materials Inventory. |  | 66,000 |
| b. Direct Materials | 66,000 |  |
| Indirect Materials. | 9,000 |  |
| Work in Process Inventory |  | 75,000 |
| c. Manufacturing Overhead. | 75,000 |  |
| Raw Materials Inventory. |  | 75,000 |
| d. Work In Process Inventory | 66,000 |  |
| Manufacturing Overhead. | 9,000 |  |
| Raw Materials Inventory |  | 75,000 |

Ans: D, LO: 2, Bloom: AP, Difficulty: Medium, Min: 2, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA
64. The job cost sheet does not show
a. costs chargeable to a specific job.
b. the total costs of a completed job.
c. the unit cost of a completed job.
d. the cost of goods sold.

Ans: D, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics
65. Under an effective system of internal control, the authorization for issuing materials is made
a. orally.
b. on a prenumbered materials requisition slip.
c. by the accounting department.
d. by anyone on the production line.

Ans: B, LO: 2, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Risk Management, AICPA PC: None, IMA: Internal Controls
66. A copy of the materials requisition slip would not include the:
a. quantity.
b. stock number.
c. cost per unit.
d. name of the supplier.

Ans: D, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Internal Controls
67. Materials requisition slips are costed
a. by production supervisors.
b. by factory personnel who work on the production line.
c. after the goods have been sold.
d. using any of the inventory costing methods.

Ans: D, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
68. Postings to control accounts in a costing system are made
a. monthly.
b. daily.
c. annually.
d. semi-annually.

Ans: A, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Business Applications
69. Which one of the following should be equal to the balance of the Work In Process Inventory account at the end of the period?
a. The total of the amounts transferred from raw materials for the current period
b. The sum of the costs shown on the job cost sheets of unfinished jobs
c. The total of manufacturing overhead applied to work in process for the period
d. The total manufacturing costs for the period

Ans: B, LO: 2, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
70. Which of the following shows entries only to control accounts?
a. Factory Labor

Factory Wages Payable
b. Work in Process

Factory Labor
Raw Materials Inventory
Factory Wages Payable
c. Work in Process

Manufacturing Overhead
Raw Materials Inventory
d. Factory Labor

Raw Materials Inventory
Accounts Payable
Factory Wages Payable
Ans: C, LO: 2, Bloom: C, Difficulty: Medium, Min: 2, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA
71. A time ticket does not indicate the
a. employee's name.
b. account to be charged.
c. number of personal exemptions claimed by the employee.
d. job number.

Ans: C, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics
72. Which one of the following is a source document that impacts the job cost sheet?
a. Raw materials receiving slips.
b. Materials purchase orders.
c. Labor time tickets.
d. Finished goods shipping documents.

Ans: C, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Internal Controls
73. Time tickets should be approved by
a. the audit committee.
b. co-workers.
c. the employee's supervisor.
d. the payroll department.

Ans: C, LO: 2, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Internal Controls
74. If the entry to assign factory labor showed only a debit to Work In Process Inventory, then all labor costs were
a. direct labor.
b. indirect labor.
c. overtime related.
d. regular hours.

Ans: A, LO: 2, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
75. The principal accounting record used in assigning costs to jobs is
a. a job cost sheet.
b. the cost of goods manufactured schedule.
c. the Manufacturing Overhead control account.
d. the stores ledger cards.

Ans: A, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics
76. The following information is available for completed Job No. 402: Direct materials, \$120,000; direct labor, \$180,000; manufacturing overhead applied, \$90,000; units produced, 5,000 units; units sold, 4,000 units. The cost of the finished goods on hand from this job is
a. $\$ 60,000$.
b. $\$ 390,000$.
c. $\$ 78,000$.
d. $\$ 312,000$.

Ans: C, LO: 2, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting
77. Sportly, Inc. completed Job No. B14 during 2017. The job cost sheet listed the following:
Direct materials
Direct labor
Manufacturing overhead applied
Units produced
Units sold
\$110,000
\$60,000
\$40,000
3,000 units 1,800 units

How much is the cost of the finished goods on hand from this job?
a. $\$ 210,000$
b. $\$ 126,000$
c. $\$ 84,000$
d. $\$ 102,000$

Ans: C, LO: 2, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC:
Problem Solving, IMA: Reporting
78. Madison Inc. uses job order costing for its brand new line of sewing machines. The cost incurred for production during 2017 totaled $\$ 18,000$ of materials, $\$ 9,000$ of direct labor costs, and $\$ 6,000$ of manufacturing overhead applied. The company ships all goods as soon as they are completed which results in no finished goods inventory on hand at the end of any year. Beginning work in process totaled $\$ 15,000$, and the ending balance is $\$ 9,000$. During the year, the company completed 25 machines. How much is the cost per machine?
a. $\$ 1,080$
b. $\$ 1,560$
c. $\$ 1,320$
d. $\$ 1,920$

Ans: B, LO: 2, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: Business Economics
79. As of December 31, 2017, Nilsen Industries had $\$ 2,000$ of raw materials inventory. At the beginning of 2017, there was $\$ 1,600$ of materials on hand. During the year, the company purchased $\$ 354,000$ of materials; however it paid for only $\$ 314,000$. How much inventory was requisitioned for use on jobs during 2017?
a. $\$ 354,400$
b. $\$ 344,400$
c. $\$ 343,600$
d. $\$ 353,600$

Ans: D, LO: 2, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: Business Economics
80. Cost of goods manufactured equals $\$ 85,000$ for 2017. Finished goods inventory is $\$ 2,000$ at the beginning of the year and $\$ 5,500$ at the end of the year. Beginning and ending work in process for 2017 are $\$ 4,000$ and $\$ 5,000$, respectively. How much is cost of goods sold for the year?
a. $\$ 87,500$
b. $\$ 83,000$
c. $\$ 81,500$
d. $\$ 88,500$

Ans: C, LO: 3, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting
81. A company expected its annual overhead costs to be $\$ 1,500,000$ and direct labor costs to be $\$ 1,000,000$. Actual overhead was $\$ 1,450,000$, and actual labor costs totaled $\$ 1,100,000$. How much is the company's predetermined overhead rate to the nearest cent?
a. $\$ 1.45$
b. $\$ 1.31$
c. $\$ 1.50$
d. $\$ 1.37$

Ans: C, LO: 3, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: Business Economics
82. Vektek, Inc. thinks machine hours is the best activity base for its manufacturing overhead. The estimate of annual overhead costs for its jobs was $\$ 2,050,000$. The company used 1,000 hours of processing on Job No. B12 during the period and incurred overhead costs totaling $\$ 2,100,000$. The budgeted machine hours for the year totaled 20,000 . How much overhead should be applied to Job No. B12?
a. $\$ 2,100$
b. $\$ 102,500$
c. $\$ 105,000$
d. $\$ 2,050$

Ans: B, LO: 3, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA
83. Barr Mfg. provided the following information from its accounting records for 2017:

| Expected production | 60,000 labor hours |
| :--- | ---: |
| Actual production | 56,000 labor hours |
| Budgeted overhead | $\$ 900,000$ |
| Actual overhead | $\$ 870,000$ |

How much is the overhead application rate if Barr bases the rate on direct labor hours?
a. $\$ 16.07$ per hour
b. $\$ 15.00$ per hour
c. $\$ 14.50$ per hour
d. $\$ 15.54$ per hour

Ans: B, LO: 3, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA
84. Kinney Company applies overhead on the basis of $150 \%$ of direct labor cost. Job No. 176 is charged with $\$ 150,000$ of direct materials costs and $\$ 180,000$ of manufacturing overhead. The total manufacturing costs for Job No. 176 is
a. $\$ 330,000$.
b. $\$ 600,000$.
c. $\$ 450,000$.
d. $\$ 405,000$.

Ans: C, LO: 3, Bloom: AP, Difficulty: Medium, Min: 2, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA
85. Redman Company manufactures customized desks. The following pertains to Job No. 978:

Direct materials used
Direct labor hours worked
Direct labor rate per hour
Machine hours used
Applied factory overhead rate per machine hour
\$15,450

360
\$15.00
300
\$22.00

What is the total manufacturing cost for Job No. 978 ?
a. $\$ 25,650$
b. $\$ 27,450$
c. $\$ 28,950$
d. $\$ 30,750$

Ans: B, LO: 3, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting
86. Henson Company applies overhead on the basis of $120 \%$ of direct labor cost. Job No. 190 is charged with $\$ 140,000$ of direct materials costs and $\$ 180,000$ of manufacturing overhead. The total manufacturing costs for Job No. 190 is
a. $\$ 320,000$.
b. $\$ 536,000$.
c. $\$ 348,000$.
d. $\$ 470,000$.

Ans: D, LO: 3, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA
87. Norman Company manufactures customized desks. The following pertains to Job No. 953:

| Direct materials used | $\$ 22,800$ |
| :--- | ---: |
| Direct labor hours worked | 600 |
| Direct labor rate per hour | $\$ 16.00$ |
| Machine hours used | 400 |
| Applied factory overhead rate per machine hour | $\$ 30.00$ |

What is the total manufacturing cost for Job No. 953?
a. $\$ 41,200$
b. $\$ 44,400$
c. $\$ 47,200$
d. $\$ 50,400$

Ans: B, LO: 3, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting
88. Minton Company provided the following information from its accounting records for 2017:

| Expected production | 60,000 labor hours |
| :--- | ---: |
| Actual production | 56,000 labor hours |
| Budgeted overhead | $\$ 1,800,000$ |
| Actual overhead | $\$ 1,740,000$ |

How much is the overhead application rate if Minton Company bases it on direct labor hours?
a. $\$ 30.00$ per hour
b. $\$ 29.00$ per hour
c. $\$ 32.14$ per hour
d. $\$ 31.07$ per hour

Ans: A, LO: 3, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA
89. The labor costs that have been identified as indirect labor should be charged to
a. manufacturing overhead.
b. direct labor.
c. the individual jobs worked on.
d. salary expense.

Ans: A, LO: 3, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Reporting
90. Manufacturing overhead is applied to each job
a. at the time when the overhead cost is incurred.
b. by means of a predetermined overhead rate.
c. at the end of the year when actual costs are known.
d. only if the overhead costs can be directly traced to that job.

Ans: B, LO: 3, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
91. The predetermined overhead rate is based on the relationship between
a. estimated annual costs and actual activity.
b. estimated annual costs and expected annual activity.
c. actual monthly costs and actual annual activity.
d. estimated monthly costs and actual monthly activity.

Ans: B, LO: 3, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
92. The predetermined overhead rate is
a. determined on a moving average basis throughout the year.
b. not calculated until actual overhead costs are incurred.
c. determined at the beginning of the year.
d. determined at the end of the current year.

Ans: C, LO: 3, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
93. In calculating a predetermined overhead rate, a recent trend in automated manufacturing operations is to choose an activity base related to
a. direct labor hours.
b. indirect labor dollars.
c. machine hours.
d. raw materials dollars.

Ans: C, LO: 3, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
94. If annual overhead costs are expected to be $\$ 750,000$ and direct labor costs are expected to be $\$ 1,000,000$, then if the activity base is direct labor costs:
a. $\quad \$ 1.33$ is the predetermined overhead rate.
b. for every dollar of manufacturing overhead, 75 cents of direct labor will be assigned.
c. for every dollar of direct labor, 75 cents of manufacturing overhead will be assigned.
d. a predetermined overhead rate cannot be determined.

Ans: C, LO: 3, Bloom: AP, Difficulty: Medium, Min: 2, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: Business Economics
95. Overhead application is recorded with a
a. credit to Work in Process Inventory.
b. credit to Manufacturing Overhead.
c. debit to Manufacturing Overhead.
d. credit to job cost sheets.

Ans: B, LO: 3, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
96. Manufacturing overhead applied is added to direct labor incurred and to what other item to equal total manufacturing costs for the period?
a. Goods available for sale.
b. Raw materials purchased.
c. Work in process.
d. Direct materials used.

Ans: D, LO: 3, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
97. Simmons Inc. applies overhead to production at a predetermined rate of $90 \%$ based on direct labor cost. Job No. 250, the only job still in process at the end of August, has been charged with manufacturing overhead of $\$ 8,100$. What was the amount of direct materials charged to Job 250 assuming the balance in Work in Process inventory is $\$ 30,000$ ?
a. $\$ 8,100$.
b. $\$ 9,000$.
c. $\$ 12,900$.
d. $\$ 30,000$.

Ans: C, LO: 3, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting
98. Spencer Inc. applies overhead to production at a predetermined rate of $80 \%$ based on direct labor cost. Job No. 130, the only job still in process at the end of August, has been charged with manufacturing overhead of $\$ 6,400$. What was the amount of direct materials charged to Job 130 assuming the balance in Work in Process inventory is $\$ 20,000$ ?
a. $\$ 7,000$.
b. $\$ 6,400$.
c. $\$ 5,600$.
d. $\$ 20,000$.

Ans: C, LO: 3, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting
99. For Jacobs Company, the predetermined overhead rate is $70 \%$ of direct labor cost. During the month, $\$ 600,000$ of factory labor costs are incurred of which $\$ 140,000$ is indirect labor. Actual overhead incurred was $\$ 320,000$. The amount of overhead debited to Work in Process Inventory should be:
a. $\$ 322,000$
b. $\$ 320,000$
c. $\$ 420,000$
d. $\$ 460,000$

Ans: A, LO: 3, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: Business Economics
100. Simpson Company applies overhead on the basis of $200 \%$ of direct labor cost. Job No. 305 is charged with $\$ 180,000$ of direct materials costs and $\$ 200,000$ of manufacturing overhead. The total manufacturing costs for Job No. 305 is:
a. $\$ 380,000$
b. $\$ 480,000$
c. $\$ 560,000$
d. $\$ 580,000$

Ans: B, LO: 3, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting
101. For Wilton Company, the predetermined overhead rate is $70 \%$ of direct labor cost. During the month, $\$ 720,000$ of factory labor costs are incurred of which $\$ 200,000$ is indirect labor. Actual overhead incurred was $\$ 360,000$. The amount of overhead debited to Work in Process Inventory should be:
a. $\$ 364,000$
b. $\$ 360,000$
c. $\$ 504,000$
d. $\$ 520,000$

Ans: A, LO: 3, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: Business Economics
102. At the beginning of the year, Monroe Company estimates annual overhead costs to be $\$ 2,400,000$ and that 300,000 machine hours will be operated. Using machine hours as a base, the amount of overhead applied during the year if actual machine hours for the year was 315,000 hours is
a. $\$ 2,400,000$.
b. $\$ 2,285,714$.
c. $\$ 1,680,000$.
d. $\$ 2,520,000$.

Ans: D, LO: 4, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA
103. Cost of goods sold is obtained from
a. analysis of all the control accounts in the cost system.
b. the finished goods inventory records.
c. the work in process inventory records.
d. the Raw Materials Inventory control account.

Ans: B, LO: 4, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
104. When determining costs of jobs, how does a company account for indirect materials?
a. It is added to work in process as used.
b. It remains part of raw materials inventory.
c. It is transferred out of raw materials into manufacturing overhead when used.
d. It is transferred out of raw materials into work in process as used.

Ans: C, LO: 4, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
105. In a job order cost system, a credit to Manufacturing Overhead will be accompanied by a debit to
a. Cost of Goods Manufactured.
b. Finished Goods Inventory.
c. Work in Process Inventory.
d. Raw Materials Inventory.

Ans: C, LO: 4, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
106. During 2017, Tanner Manufacturing expected Job No. 26 to cost $\$ 300,000$ of overhead, $\$ 500,000$ of materials, and $\$ 200,000$ in labor. Tanner applied overhead based on direct labor cost. Actual production required an overhead cost of $\$ 290,000, \$ 550,000$ in materials used, and $\$ 220,000$ in labor. All of the goods were completed. What amount was transferred to Finished Goods?
a. $\$ 1,000,000$
b. $\$ 1,060,000$
c. $\$ 1,070,000$
d. $\$ 1,100,000$

Ans: D, LO: 4, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA
107. Debits to Work in Process Inventory are accompanied by a credit to all but which one of the following accounts?
a. Raw Materials Inventory
b. Factory Labor
c. Manufacturing Overhead
d. Cost of Goods Sold

Ans: D, LO: 4, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
108. Which of the following is not viewed as part of accumulating manufacturing costs in a job order cost system?
a. Cost of goods sold is recognized
b. Raw materials are purchased
c. Factory labor is incurred
d. Manufacturing overhead is incurred

Ans: A, LO: 4, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
109. Which of the following is not viewed as part of assigning manufacturing costs in a job order cost system?
a. Manufacturing overhead is applied
b. Raw materials are used
c. Manufacturing overhead is incurred
d. Completed goods are recognized

Ans: C, LO: 4, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
110. In determining total manufacturing costs on the cost of goods manufactured schedule,
a. beginning work in process inventory should have a zero balance.
b. actual manufacturing overhead costs appear as a deduction.
c. manufacturing overhead applied is added to direct materials and direct labor.
d. ending work in process inventory is deducted from beginning work in process inventory.

Ans: C, LO: 4, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
111. Gulick Company developed the following data for the current year:

Beginning work in process inventory \$240,000
Direct materials used 144,000
Actual overhead 288,000
Overhead applied 216,000
Cost of goods manufactured 264,000
Total manufacturing costs $\quad 720,000$
Gulick Company's direct labor cost for the year is
a. $\$ 72,000$.
b. $\$ 360,000$.
c. $\$ 216,000$.
d. $\$ 288,000$.

Ans: B, LO: 4, Bloom: AP, Difficulty: Hard, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting
112. Gulick Company developed the following data for the current year:

| Beginning work in process inventory | $\$ 240,000$ |
| :--- | ---: |
| Direct materials used | 144,000 |
| Actual overhead | 288,000 |
| Overhead applied | 216,000 |
| Cost of goods manufactured | 264,000 |
| Total manufacturing costs | 720,000 |

Gulick Company's ending work in process inventory is
a. $\$ 696,000$.
b. $\$ 480,000$.
c. $\$ 456,000$.
d. $\$ 216,000$.

Ans: A, LO: 4, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting
113. Hayward Manufacturing Company developed the following data:

| Beginning work in process inventory | $\$ 900,000$ |
| :--- | ---: |
| Direct materials used | 700,000 |
| Actual overhead | $1,100,000$ |
| Overhead applied | 800,000 |
| Cost of goods manufactured | $1,200,000$ |
| Ending work in process | $1,500,000$ |

Hayward Manufacturing Company's total manufacturing costs for the period is
a. $\$ 1,900,000$.
b. $\$ 1,800,000$.
c. $\$ 1,300,000$.
d. cannot be determined from the data provided.

Ans: B, LO: 4, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting
114. Which of the following is not used in assigning manufacturing costs to work in process inventory?
a. Actual manufacturing overhead
b. Time tickets
c. Materials requisitions
d. Predetermined overhead rate

Ans: A, LO: 4, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
115. On the cost of goods manufactured schedule, the cost of goods manufactured agrees with the
a. balance of Finished Goods Inventory at the end of the period.
b. total debits to Work in Process Inventory during the period.
c. amount transferred from Work in Process Inventory to Finished Goods during the period.
d. debits to Cost of Goods Sold during the period.

Ans: C, LO: 4, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
116. Gannon Company had the following information at December 31:

Finished goods inventory, January $1 \quad \$ 50,000$
Finished goods inventory, December 31 150,000
If the cost of goods manufactured during the year amounted to $\$ 2,200,000$ and annual sales were $\$ 2,750,000$, the amount of gross profit for the year is
a. $\$ 550,000$.
b. $\$ 2,100,000$.
c. $\$ 650,000$.
d. $\$ 450,000$.

Ans: C, LO: 4, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting
117. Haight Company incurred direct materials costs of $\$ 2,500,000$ during the year. Manu-facturing overhead applied was $\$ 450,000$ and is applied at the rate of $60 \%$ of direct labor costs. Haight Company's total manufacturing costs for the year was
a. $\$ 3,700,000$.
b. $\$ 3,220,000$.
c. $\$ 2,950,000$.
d. $\$ 4,720,000$.

Ans: A, LO: 4, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting
118. Greer Company developed the following data for the current year:

Beginning work in process inventory
Direct materials used
Actual overhead
Overhead applied
Cost of goods manufactured
Total manufacturing costs
\$ 136,000 208,000 176,000 184,000 900,000 856,000

How much is Greer Company's direct labor cost for the year?
a. $\$ 508,000$
b. $\$ 600,000$
c. $\$ 464,000$
d. $\$ 328,000$

Ans: C, LO: 4, Bloom: AP, Difficulty: Hard, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: Business Economics
119. Greer Company developed the following data for the current year:

Beginning work in process inventory
Direct materials used
Actual overhead
Overhead applied
Cost of goods manufactured
Total manufacturing costs
\$ 136,000 208,000 176,000 184,000 900,000
856,000

How much is Greer Company's ending work in process inventory for the year?
a. $\$ 92,000$
b. $\$ 484,000$
c. $\$ 84,000$
d. $\$ 372,000$
120. Chmelar Manufacturing Company developed the following data:

| Beginning work in process inventory | $\$ 120,000$ |
| :--- | ---: |
| Direct materials used | 720,000 |
| Actual overhead | 840,000 |
| Overhead applied | 810,000 |
| Cost of goods manufactured | $1,920,000$ |
| Ending work in process | 90,000 |

How much are total manufacturing costs for the period?
a. $\$ 2,370,000$
b. $\$ 1,890,000$
c. $\$ 1,650,000$
d. $\$ 1,830,000$

Ans: B, LO: 4, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: Business Economics
121. Barger Company had the following information at December 31:

$$
\begin{array}{lc}
\text { Finished goods inventory, January } 1 & \$ 90,000 \\
\text { Finished goods inventory, December } 31 & 126,000
\end{array}
$$

If the cost of goods manufactured during the year amounted to $\$ 1,895,000$ and annual sales were $\$ 2,994,000$, how much is the amount of gross profit for the year?
a. $\$ 1,099,000$
b. $\$ 1,009,000$
c. $\$ 1,859,000$
d. $\$ 1,135,000$

Ans: D, LO: 4, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting
122. Emley Company incurred direct materials costs of $\$ 750,000$ during the year. Manufacturing overhead applied was $\$ 700,000$ and is applied based on direct labor costs. The predetermined overhead rate is $70 \%$. How much are Emley Company's total manufacturing costs for the year?
a. $\$ 1,940,000$
b. $\$ 1,750,000$
c. $\$ 1,450,000$
d. $\$ 2,450,000$

Ans: D, LO: 4, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting
123. During 2017, Durham Manufacturing expected Job No. 51 to cost $\$ 300,000$ of overhead, $\$ 500,000$ of materials, and $\$ 200,000$ in labor. Durham applied overhead based on direct labor cost. Actual production required an overhead cost of $\$ 295,000, \$ 570,000$ in materials used, and $\$ 220,000$ in labor. All of the goods were completed. What amount was transferred to Finished Goods?
a. $\$ 1,090,000$
b. $\$ 1,120,000$
c. $\$ 1,000,000$
d. $\$ 1,085,000$
124. During 2017, Cotte Manufacturing expected Job No. 59 to cost $\$ 300,000$ of overhead, $\$ 500,000$ of materials, and $\$ 200,000$ in labor. Cotte applied overhead based on direct labor cost. Actual production required an overhead cost of $\$ 295,000, \$ 570,000$ in materials used, and $\$ 220,000$ in labor. All of the goods were completed. How much is the amount of over- or underapplied overhead?
a. \$5,000 underapplied
b. $\$ 5,000$ overapplied
c. $\$ 35,000$ underapplied
d. $\$ 35,000$ overapplied

Ans: D, LO: 5, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: Business Economics
125. Kimble Company applies overhead on the basis of machine hours. Given the following data, compute overhead applied and the under- or overapplication of overhead for the period:

| Estimated annual overhead cost | $\$ 1,600,000$ |
| :--- | ---: |
| Actual annual overhead cost | $\$ 1,575,000$ |
| Estimated machine hours | 400,000 |
| Actual machine hours | 390,000 |

a. $\$ 1,560,000$ applied and $\$ 15,000$ overapplied
b. $\$ 1,600,000$ applied and $\$ 15,000$ overapplied
c. $\$ 1,560,000$ applied and $\$ 15,000$ underapplied
d. $\$ 1,575,000$ applied and neither under-nor overapplied

Ans: C, LO: 5, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: Business Economics
126. Barnes Company applies overhead on the basis of machine hours. Given the following data, compute overhead applied and the under- or overapplication of overhead for the period:

| Estimated annual overhead cost | $\$ 3,000,000$ |
| :--- | ---: |
| Actual annual overhead cost | $\$ 2,970,000$ |
| Estimated machine hours | 300,000 |
| Actual machine hours | 295,000 |

a. $\$ 2,950,000$ applied and $\$ 20,000$ overapplied
b. $\$ 3,000,000$ applied and $\$ 20,000$ overapplied
c. $\$ 2,950,000$ applied and $\$ 20,000$ underapplied
d. $\$ 2,970,000$ applied and neither under- nor overapplied

Ans: C, LO: 5, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: Business Economics
127. A company assigned overhead to work in process. At year end, what does the amount of overapplied overhead mean?
a. The overhead assigned to work in process is greater than the estimated overhead costs.
b. The overhead assigned to work in process is less than the estimated overhead costs.
c. The overhead assigned to work in process is less than the actual overhead.
d. The overhead assigned to work in process is greater than the overhead incurred.
128. If the Manufacturing Overhead account has a debit balance at the end of a period, it means that
a. actual overhead costs were less than overhead costs applied to jobs.
b. actual overhead costs were greater than overhead costs applied to jobs.
c. actual overhead costs were equal to overhead costs applied to jobs.
d. no jobs have been completed.

Ans: B, LO: 5, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics
129. If the manufacturing overhead costs applied to jobs worked on were greater than the actual manufacturing costs incurred during a period, overhead is said to be
a. underapplied.
b. overapplied.
c. in error.
d. prepaid.

Ans: B, LO: 5, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics
130. At the end of the year, any balance in the Manufacturing Overhead account is generally eliminated by adjusting
a. Work In Process Inventory.
b. Finished Goods Inventory.
c. Cost of Goods Sold.
d. Raw Materials Inventory.

Ans: C, LO: 5, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics
131. If Manufacturing Overhead has a credit balance at the end of the period, then
a. overhead has been underapplied.
b. the overhead assigned to Work in Process Inventory is less than the overhead incurred.
c. overhead has been overapplied.
d. management must take corrective action.

Ans: C, LO: 5, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics
132. The Manufacturing Overhead account shows debits of $\$ 30,000, \$ 24,000$, and $\$ 28,000$ and one credit for $\$ 86,000$. Based on this information, manufacturing overhead
a. has been overapplied.
b. has been underapplied.
c. has not been applied.
d. shows a zero balance.

Ans: A, LO: 5, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA
133. If Manufacturing Overhead has a debit balance at the end of the period, then
a. overhead has been underapplied.
b. the overhead assigned to Work in Process Inventory is more than the overhead incurred.
c. overhead has been overapplied.
d. management must take corrective action.

Ans: A, LO: 5, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
134. If actual overhead is greater than applied manufacturing overhead, then manufacturing overhead is:
a. underapplied.
b. overapplied.
c. a loss on the income statement under "Other Expenses and Losses."
d. considered a miscellaneous expense.

Ans: A, LO: 5, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
135. If actual overhead is less than applied manufacturing overhead, then manufacturing overhead is:
a. underapplied.
b. overapplied.
c. a loss on the income statement under "Other Expenses and Losses."
d. considered a miscellaneous expense.

Ans: B, LO: 5, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
136. If manufacturing overhead has been underapplied during the year, the adjusting entry at the end of the year will show a
a. debit to Manufacturing Overhead.
b. credit to Cost of Goods Sold.
c. debit to Work in Process Inventory.
d. debit to Cost of Goods Sold.

Ans: D, LO: 5, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
137. If manufacturing overhead has been overapplied during the year, the adjusting entry at the end of the year will show a
a. debit to Manufacturing Overhead.
b. credit to Finished Goods Inventory
c. debit to Cost of Goods Sold.
d. credit to Work in Process Inventory.

Ans: A, LO: 5, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
138. The existence of under- or overapplied overhead at the end of the year:
a. requires an adjustment to Cost of Goods Sold.
b. indicates that an error has been made.
c. requires a retroactive adjustment to the cost of all jobs completed.
d. is written off as a bad estimate expense.

Ans: A, LO: 5, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
139. Conceptually, any under- or overapplied overhead at the end of the year should be allocated among all of the following except
a. cost of goods sold.
b. ending work in process inventory.
c. ending raw materials inventory.
d. ending finished goods inventory.
140. If, at the end of the year, Manufacturing Overhead has been overapplied, it means that
a. actual overhead costs were greater than the overhead assigned to jobs.
b. actual overhead costs were less than the overhead assigned to jobs.
c. overhead has not been applied to jobs still in process.
d. cost of goods will have to be increased by the amount of the overapplied overhead.

Ans: B, LO: 5, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
141. A process cost system would be used for all of the following except the
a. manufacture of cereal.
b. refining of petroleum.
c. printing of wedding invitations.
d. production of automobiles.

Ans: C, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Business Applications
142. In a job order cost system, it would be correct in recording the purchase of raw materials to debit
a. Work in Process Inventory.
b. Work in Process and Manufacturing Overhead.
c. Raw Materials Inventory.
d. Finished Goods Inventory.

Ans: C, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
143. In a manufacturing company, the cost of factory labor consists of all of the following except
a. employer payroll taxes.
b. fringe benefits incurred by the employer.
c. net earnings of factory workers.
d. gross earnings of factory workers.

Ans: C, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
144. Which of the following is not a control account?
a. Raw Materials Inventory
b. Factory Labor
c. Manufacturing Overhead
d. All of these are control accounts.

Ans: B, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
145. When the company assigns factory labor costs to jobs, the direct labor cost is debited to a. Direct Labor.
b. Factory Labor.
c. Manufacturing Overhead.
d. Work in Process Inventory.

Ans: D, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
146. Jinnah Company applies overhead on the basis of $200 \%$ of direct labor cost. Job No. 501 is charged with $\$ 240,000$ of direct materials costs and $\$ 320,000$ of manufacturing overhead. The total manufacturing costs for Job No. 501 is
a. $\$ 560,000$.
b. $\$ 880,000$.
c. $\$ 720,000$.
d. $\$ 800,000$.

Ans: C, LO: 3, Bloom: AP, Difficulty: Medium, Min: 1, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting
147. Companies assign manufacturing overhead to work in process on an estimated basis through the use of $a(n)$
a. actual overhead rate.
b. estimated overhead rate.
c. assigned overhead rate.
d. predetermined overhead rate.

Ans: D, LO: 3, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
148. Overapplied manufacturing overhead exists when overhead assigned to work in process is
a. more than overhead incurred and there is a debit balance in Manufacturing Overhead at the end of a period.
b. less than overhead incurred and there is a debit balance in Manufacturing Overhead at the end of a period.
c. more than overhead incurred and there is a credit balance in Manufacturing Overhead at the end of a period.
d. less than overhead incurred and there is a credit balance in Manufacturing Overhead at the end of a period.

Ans: C, LO: 5, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
149. Usually, under- or overapplied overhead is considered to be an adjustment to
a. work in process.
b. finished goods.
c. finished goods and cost of goods sold.
d. cost of goods sold.

Ans: D, LO: 5, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
150. Which of the following statements about under- or overapplied manufacturing overhead is correct?
a. After the entry to transfer over- or underapplied overhead to Cost of Goods Sold is posted, Manufacturing Overhead will have a zero balance.
b. When Manufacturing Overhead has a credit balance, overhead is said to be underapplied.
c. At the end of the year, under- or overapplied overhead is eliminated by a closing entry.
d. When annual financial statements are prepared, overapplied overhead is reported in current liabilities.

## Answers to Multiple Choice Questions

| Item | Ans. | Item | Ans. | Item | Ans. | Item | Ans. | Item | Ans. | Item | Ans. | Item | Ans. |
| :---: | :---: | :---: | :---: | :---: | :---: | ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 36. | a | 53. | a | 70. | c | 87. | b | 104. | c | 121. | d | 138. | a |
| 37. | d | 54. | c | 71. | c | 88. | a | 105. | c | 122. | d | 139. | c |
| 38. | b | 55. | d | 72. | c | 89. | a | 106. | d | 123. | b | 140. | b |
| 39. | c | 56. | a | 73. | c | 90. | b | 107. | d | 124. | d | 141. | c |
| 40. | d | 57. | c | 74. | a | 91. | b | 108. | a | 125. | c | 142. | c |
| 41. | a | 58. | b | 75. | a | 92. | c | 109. | c | 126. | c | 143. | c |
| 42. | c | 59. | d | 76. | c | 93. | c | 110. | c | 127. | d | 144. | b |
| 43. | b | 60. | d | 77. | c | 94. | c | 111. | b | 128. | b | 145. | d |
| 44. | b | 61. | a | 78. | b | 95. | b | 112. | a | 129. | b | 146. | c |
| 45. | a | 62. | c | 79. | d | 96. | d | 113. | b | 130. | c | 147. | d |
| 46. | b | 63. | d | 80. | c | 97. | c | 114. | a | 131. | c | 148. | c |
| 47. | d | 64. | d | 81. | c | 98. | c | 115. | c | 132. | a | 149. | d |
| 48. | c | 65. | b | 82. | b | 99. | a | 116. | c | 133. | a | 150. | a |
| 49. | b | 66. | d | 83. | b | 100. | b | 117. | a | 134. | a |  |  |
| 50. | d | 67. | d | 84. | c | 101. | a | 118. | c | 135. | b |  |  |
| 51. | b | 68. | a | 85. | b | 102. | d | 119. | a | 136. | d |  |  |
| 52. | d | 69. | b | 86. | d | 103. | b | 120. | b | 137. | a |  |  |

## BRIEF EXERCISES

## BE 151

During the first year of operations, Shapiro Tool accumulated the following manufacturing costs:

| Raw materials purchased on account | $\$ 12,000$ |
| :--- | ---: |
| Factory labor accrued | 6,000 |
| Incurred manufacturing overhead on account | 4,000 |

Instructions
Prepare separate journal entries for each manufacturing cost.

| Solution 151 (4 min.) | 12,000 | 12,000 |
| :---: | :---: | :---: |
| Raw Materials Inventory. <br> Accounts Payable... |  |  |
| Factory Labor | 6,000 | 6,000 |
| Factory Wages Payable. |  |  |
| Manufacturing Overhead | 4,000 | 4,000 |
| Accounts Payable ........................................................... |  |  |

## BE 152

In January, Harlan, Inc. production supervisor requisitioned raw materials for production as follows: Job $1 \$ 700$, Job $2 \$ 900$, Job $3 \$ 400$, and general factory use, $\$ 520$.

## Instructions

Prepare a summary journal entry to record raw materials used.
Ans: N/A, LO: 1, Bloom: AP, Difficulty: Medium, Min: 2, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution 152 (2 min.)
Work in Process Inventory ............................................................. 2,000
Manufacturing Overhead.................................................................. 520
Raw Materials Inventory .......................................................... 2,520

## BE 153

Lando Company reported the following amounts for 2016:

| Raw materials purchased | $\$ 83,000$ | Ending work in process inventory | $\$ 6,300$ |
| :--- | ---: | :--- | ---: |
| Beginning raw materials inventory | 5,200 | Manufacturing overhead costs applied | 36,000 |
| Ending raw materials inventory | 4,500 | Beginning work in process inventory | 6,100 |

## Instructions

Calculate the cost of materials used in production
Ans: N/A, LO: 2, Bloom: AP, Difficulty: Medium, Min: 2, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: Business Economics

Solution 153 (2 min.)
$\$ 5,200+\$ 83,000-\$ 4,500=\$ 83,700$
BE 154
Builder Bug Company allocates overhead at $\$ 9$ per direct labor hour. Job A45 required 4 boxes of direct materials at a cost of $\$ 30$ per box and took employees 20 hours to complete. Employees earn $\$ 15$ per hour.

## Instructions

Compute the total cost of Job A45.
Ans: N/A, LO: 2, Bloom: AP, Difficulty: Medium, Min: 4, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: Business Economics

Solution 154 (4 min.)
Direct materials $(4 \times \$ 30) \quad \$ 120$
Direct labor ( 20 hours $\times \$ 15$ ) 300
Overhead ( 20 hours $\times \$ 9$ ) 180
Total job cost $\underline{\underline{\$ 600}}$

## BE 155

Colby Company estimates that annual manufacturing overhead costs will be $\$ 600,000$. Estimated annual operating activity bases are: direct labor cost $\$ 460,000$, direct labor hours 40,000 and machine hours 80,000 . The actual manufacturing overhead cost for the year was $\$ 601,000$ and the actual direct labor cost for the year was $\$ 456,000$. Actual direct labor hours totaled 39,800 and machine hours totaled 79,000 . Colby applies overhead based on direct labor hours.

## Instructions

Compute the predetermined overhead rate and determine the amount of manufacturing overhead applied. Determine if overhead is over- or underapplied and the amount.

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

Solution 155 ( 5 min .)
Rate $=\$ 600,000 \div 40,000=\$ 15$ per direct labor hour
Applied $=\$ 15 \bigcirc 39,800=\$ 597,000$
Underapplied $=\$ 597,000-\$ 601,000=\$ 4,000$

BE 156
Martin Company applies manufacturing overhead based on direct labor hours. Information concerning manufacturing overhead and labor for the year follows:

| Actual manufacturing overhead | $\$ 150,000$ |
| :--- | ---: |
| Estimated manufacturing overhead | $\$ 145,000$ |
| Direct labor hours incurred | 4,800 |
| Direct labor hours estimated | 5,000 |

Instructions
Compute the predetermined overhead rate.
Ans: N/A, LO: 3, Bloom: AP, Difficulty: Medium, Min: 2, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: Business Economics

Solution 156 (2 min.)
$\$ 145,000 \div 5,000=\$ 29$ per direct labor hour

BE 157
The manufacturing operations of Bryant, Inc. had the following balances for the month of January:

| Inventories | January 1 | January31 |
| :--- | :---: | :---: |
| Raterials | $\$ 12,000$ | $\$ 13,000$ |
| Work in process | 21,000 | 23,000 |
| Finished goods | 14,000 | 16,000 |

Bryant transferred \$290,000 of completed goods out of work in process during January.
Instructions
Compute the cost of goods sold.
Ans: N/A, LO: 4, Bloom: AP, Difficulty: Medium, Min: 2, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution 157 (2 min.)
$\$ 14,000+\$ 290,000-\$ 16,000=\$ 288,000$
BE 158
The following amounts were reported by Burke Company before adjusting its immaterial overapplied manufacturing overhead of $\$ 8,000$.

| Raw Materials Inventory | $\$ 40,000$ |
| :--- | ---: |
| Finished Goods Inventory | 60,000 |
| Work in Process Inventory | 100,000 |
| Cost of Goods Sold | 730,000 |

## Instructions

Compute what amount Burke will report as cost of goods sold after it disposes of its overapplied overhead.

Ans: N/A, LO: 5, Bloom: AP, Difficulty: Medium, Min: 2, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting
Solution 158 (2 min.)
$\$ 730,000-\$ 8,000=\$ 722,000$
BE 159
During 2016, Arb Company incurred the following direct labor costs: January \$20,000 and February $\$ 30,000$. Arb uses a predetermined overhead rate of $120 \%$ of direct labor cost. Estimated overhead for the 2 months, respectively, totaled $\$ 19,500$ and $\$ 35,700$. Actual overhead for the 2 months, respectively, totaled $\$ 25,000$ and $\$ 33,500$.

## Instructions

Determine if overhead is over- or underapplied for each of the two months and the respective amounts.

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

Solution 159 ( 4 min .)
Overhead applied:
January: $120 \% \times \$ 20,000=\$ 24,000$
February: $120 \% \times \$ 30,000=\$ 36,000$
Over- or underapplied:
January: $\$ 24,000-\$ 25,000=\$ 1,000$ underapplied
February: $\$ 36,000-\$ 33,500=\$ 2,500$ overapplied

## BE 160

At December 31, Ding Company reported the following balances in its accounts:

| Cost of Goods Sold | $\$ 210,000$ |
| :--- | ---: |
| Finished Goods Inventory | 30,000 |

The company's balance in its Manufacturing Overhead account at the same date was a debit of $\$ 2,800$.

## Instructions

Prepare the entry to adjust the over- or underapplied overhead amount at December 31.
Ans: N/A, LO: 5, Bloom: AP, Difficulty: Medium, Min: 2, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution 160 (2 min.)
Cost of Goods Sold $\qquad$ 2,800
Manufacturing Overhead.

## EXERCISES

Ex. 161

The manufacturing operations of Beatly, Inc. had the following balances for the month of January:

|  | January |  |
| :--- | ---: | :---: |
|  | $\$ 12,000$ | January31 |
| Raw materials | 21,000 | 23,000 |
| Work in process | 14,000 | 12,000 |

Beatly transferred \$270,000 of completed goods out of work in process during January.
Instructions
Compute the cost of goods sold for January.
Ans: N/A, LO: 1, Bloom: AP, Difficulty: Medium, Min: 3, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution 161 (3 min.)
$\$ 14,000+\$ 270,000-\$ 12,000=\$ 272,000$
Ex. 162
A selected list of accounts used by Cline Manufacturing Company follows:

Code
A Cash
B Accounts Receivable
C Raw Materials Inventory
D Work In Process Inventory
E Finished Goods Inventory

Code
F Accounts Payable
G Factory Labor
H Manufacturing Overhead
I Cost of Goods Sold
J Sales Revenue

Cline Manufacturing Company uses a job order system and maintains perpetual inventory records.

Ex. 162 (Cont.)

## Instructions

Place the appropriate code letter in the columns indicating the appropriate account(s) to be debited and credited for the transactions listed below.

| Transactions | Account(s) <br> Debited | Account(s) <br> Credited |
| :--- | :---: | :---: |

1. Raw materials were purchased on account.
2. Issued a check to Dixon Machine Shop for repair work on factory equipment.
3. Direct materials were requisitioned for Job 280.
4. Factory labor was paid as incurred.
5. Recognized direct labor and indirect labor used.
6. The production department requisitioned indirect materials for use in the factory.
7. Overhead was applied to production based on a predetermined overhead rate of $\$ 8$ per labor hour.
8. Goods that were completed were transferred to finished goods.
9. Goods costing $\$ 80,000$ were sold for $\$ 105,000$ on account.
10. Paid for raw materials purchased previously on account.

Solution 162 (10-15 min.)

| Transactions | Account(s) Debited | Account(s) Credited |
| :---: | :---: | :---: |
| 1. Raw materials were purchased on account. | C | F |
| 2. Issued a check to Dixon Machine Shop for repair work on factory equipment. | H | A |
| 3. Direct materials were requisitioned for Job 280 | D | C |
| 4. Factory labor was paid as incurred. | G | A |
| 5. Recognized direct labor and indirect labor used | D, H | G |
| 6. The production department requisitioned indirect materials for use in the factory. | H | C |
| 7. Overhead was applied to production based on a on a predetermined overhead rate of $\$ 8$ per labor hour | D | H |
| 8. Goods that were completed were transferred to finished goods. | E | D |
| 9. Goods costing $\$ 80,000$ were sold for $\$ 105,000$ on account. | B, I | J, E |

10. Paid for raw materials purchased previously F

A on account.

Ex. 163
Finn Manufacturing Company uses a job order cost accounting system and keeps perpetual inventory records. Prepare journal entries to record the following transactions during the month of June.

June 1 Purchased raw materials for $\$ 20,000$ on account.
8 Raw materials requisitioned by production:

Direct materials
\$8,000
Indirect materials 1,000

15 Paid factory utilities, $\$ 2,100$ and repairs for factory equipment, $\$ 8,000$.
25 Incurred \$108,000 of factory labor.
25 Time tickets indicated the following:
Direct Labor $\quad(7,000 \mathrm{hrs} \times \$ 12$ per hr $)=\$ 84,000$
Indirect Labor $(3,000 \mathrm{hrs} \times \$ 8$ per hr$)=\frac{24,000}{\underline{\$ 108,000}}$
Ex. 163 (Cont.)25 Applied manufacturing overhead to production based on a predetermined overheadrate of $\$ 7$ per direct labor hour worked.
28 Goods costing \$18,000 were completed in the factory and were transferred to finished goods.
30 Goods costing $\$ 15,000$ were sold for $\$ 20,000$ on account.
Ans: N/A, LO: 1, 2, 3, Bloom: AP, Difficulty: Medium, Min: 16, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA
Solution 163 ( $16-23 \mathrm{~min}$.)
June 1 Raw Materials Inventory .................................................... 20,000
Accounts Payable .................................................... 20,000
(Purchase of raw materials on account)
8 Work In Process Inventory ................................................. 8,000
Manufacturing Overhead ................................................... 1,000
Raw Materials Inventory ........................................... 9,000
(To assign materials to jobs and overhead)
15 Manufacturing Overhead ................................................... 10,100
Cash ...................................................................... 10,100
(To record payment of factory utilities and repairs)
25 Factory Labor ................................................................... 108,000
Factory Wages Payable ........................................... 108,000
(To record factory labor costs)
25 Work In Process Inventory ................................................. 84,000

| Manufacturing Overhead | 24,000 |  |
| :---: | :---: | :---: |
| Factory Labor |  | 108,000 |
| (To assign factory labor to jobs and overhead) |  |  |

25 Work In Process Inventory ................................................ 49,000 Manufacturing Overhead 49,000 (To apply overhead to jobs)
28 Finished Goods Inventory .................................................. 18,000 Work In Process Inventory 18,000 (To record completion of production)
30 Accounts Receivable ......................................................... 20,000
Cost of Goods Sold ............................................................ 15,000
Sales Revenue
20,000
Finished Goods Inventory ......................................... 15,000
(To record sales of finished goods and its cost)

Ex. 164
Selected accounts of Kosar Manufacturing Company at year end appear below:

| RAW MATERIALS INVENTORY |  |  |  |
| :---: | :---: | :---: | :---: |
| (a) | 40,000 | (d) | 25,000 |


| (d) | 25,000 | (g) | 140,000 |
| :--- | ---: | :--- | :--- |
| (e) | 80,000 |  |  |
| (f) | 100,000 |  |  |


| FINISHED GOODS INVENTORY |  |  |  |
| :---: | :--- | :--- | :--- |
| (g) | 140,000 | (h) | 120,000 |
| FACTORY LABOR |  |  |  |
| (b) | 110,000 | (e) | 110,000 |

(h) 120,000
MANUFACTURING OVERHEAD

## Instructions

Explain the probable transaction that took place for each of the items identified by letters in the accounts. For example:
(a) Raw materials costing $\$ 40,000$ were purchased.

Ans: N/A, LO: 1, 2, 3, Bloom: C, Difficulty: Hard, Min: 9, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution 164 (9-14 min.)
(a) Raw materials costing $\$ 40,000$ were purchased.
(b) Factory labor costs incurred amounted to $\$ 110,000$.
(c) Actual manufacturing overhead costs incurred were $\$ 75,000$.
(d) Direct materials requisitioned for production amounted to $\$ 25,000$.
(e) Factory labor used consisted of:

| Direct labor | $\$ 80,000$ |
| :--- | ---: |
| Indirect labor | 30,000 |

(f) Manufacturing overhead applied to production was $\$ 100,000$.
(g) Completed goods costing $\$ 140,000$ were transferred to finished goods inventory.
(h) Finished goods costing $\$ 120,000$ were sold.

Ex. 165
Sardin Company begins the month of March with \$17,000 of work in process costs from Job 324. Information from job cost sheets shows the following additional costs assigned during March, April, and May of 2013:

|  | ManufacturingCostsAssigned |  |  |
| :--- | :---: | :---: | :---: |
| JobNo. | March | April | May |
| 324 | $\$ 26,000$ | $\$ 28,000$ | $\$ 15,000$ |
| 325 | 20,000 | $\$ 21,000$ |  |
| 326 | 41,000 | 11 |  |
| 327 |  | 16,000 | 39,000 |
| 328 |  | 34,000 | 51,000 |

Job 324 was completed in March. Jobs 325 and 327 were completed in May, and Job 326 was completed in April. Jobs are sold during the month after completion. Total revenue for jobs sold during the 3-month period is $\$ 145,000$.

Ex. 165 (Cont.)
Instructions
Calculate the balances of the work in process and finished goods inventory accounts at the end of May.

Ans: N/A, LO: 1, 2, Bloom: AP, Difficulty: Medium, Min: 5, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Business Economics
Solution 165 (5-6 min.)
Workinprocess
Job $328 \quad \$ 34,000+\$ 51,000=\underline{\$ 85,000}$
Finishedgoods

| Job 325 | $\$ 20,000+\$ 28,000+\$ 15,000=$ | $\$ 63,000$ |
| :--- | :--- | :---: |
| Job 327 | $\$ 16,000+\$ 39,000=$ | $\underline{55,000}$ |
|  |  | $\$ 118,000$ |

Ex. 166
The gross earnings of factory workers for Dinkel Company during the month of January are $\$ 400,000$. The employer's payroll taxes for the factory payroll are $\$ 80,000$. Of the total accumulated cost of factory labor, $75 \%$ is related to direct labor and $25 \%$ is attributable to indirect labor.

## Instructions

(a) Prepare the entry to record the factory labor costs for the month of January.
(b) Prepare the entry to assign factory labor to production.
(c) Prepare the entry to assign manufacturing overhead to production, assuming the predetermined overhead rate is $125 \%$ of direct labor cost.

Ans: N/A, LO: 1, 2, 3, 4, Bloom: AP, Difficulty: Medium, Min: 8, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution 166 ( $8-12 \mathrm{~min}$.)
(a) Factory Labor ............................................................................. 480,000

Factory Wages Payable..................................................... 400,000
Employer Payroll Taxes Payable ....................................... 80,000
(b) Work in Process Inventory........................................................... 360,000

Manufacturing Overhead ............................................................. 120,000 Factory Labor .................................................................... 480,000 $(\$ 480,000 \times 75 \%=\$ 360,000)$
(c) Work in Process Inventory........................................................... 450,000

Manufacturing Overhead

## Ex. 167

Foster Manufacturing uses a job order cost accounting system. On April 1, the company has Work in Process Inventory of $\$ 7,600$ and two jobs in process: Job No. 221, $\$ 3,600$, and Job No. 222, $\$ 4,000$. During April, a summary of source documents reveals the following:

| $\underline{\text { For }}$ | MaterialsRequisitionSlips |  | Labor TimeTickets |
| :--- | :---: | :---: | :---: |
| Job No. 221 | $\$ 1,200$ |  | $\$ 2,100$ |
| 222 | 1,700 | 2,400 | 2,200 |
| 223 | 2,600 |  | 2,900 |
| 224 | $\underline{600}$ |  | 2,800 |
| General use | $\underline{\$ 8,500}$ |  | $\underline{400}$ |
| Totals |  | $\underline{\$ 10,400}$ |  |

Foster applies manufacturing overhead to jobs at an overhead rate of $70 \%$ of direct labor cost. Job No. 221 is completed during the month.

## Instructions

(a) Prepare summary journal entries to record the raw materials requisitioned, factory labor used, the assignment of manufacturing overhead to jobs, and the completion of Job No. 221.
(b) Calculate the balance of the Work in Process Inventory account at April 30.

Ans: N/A, LO: 1, 2, 3, 4, Bloom: AP, Difficulty: Medium, Min: 10, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA

Solution 167 (10-15 min.)

| (a) April 30 | Work in Process Inventory. Manufacturing Overhead <br> Raw Materials Inventory | $\begin{array}{r} 7,900 \\ 600 \end{array}$ | 8,500 |
| :---: | :---: | :---: | :---: |
|  | Work in Process Inventory. | 10,000 |  |
|  | Manufacturing Overhead. | 400 |  |
|  | Factory Labor .................................................. |  | 10,400 |
|  | Work in Process Inventory.. | 7,000 |  |
|  | Manufacturing Overhead |  | 7,000 |
|  | $(\$ 10,000 \times 70 \%=\$ 70,000)$ |  |  |
|  | Finished Goods Inventory ......................................... | 8,370 |  |
|  | Work in Process Inventory $(\$ 3,600+\$ 1,200+\$ 2,100+\$ 1,470=\$ 8,370)$ |  | 8,370 |

(b) Work in Process Inventory, April $30=\$ 24,130$

Job No. 222
Job No. 223
$\$ 9,440 \quad(\$ 4,000+\$ 1,700+\$ 2,200+\$ 1,540)$
$7,330 \quad(\$ 2,400+\$ 2,900+\$ 2,030)$
Job No. $224 \quad 7,360 \quad(\$ 2,600+\$ 2,800+\$ 1,960)$

## Ex. 168

Manufacturing cost data for Dolan Company, which uses a job order cost system, are presented below:

Direct Materials Used<br>Direct Labor<br>Manufacturing Overhead Applied<br>Total Manufacturing Costs<br>Work in Process, 1/1/17<br>Total Cost of Work in Process<br>Work in Process, 12/31/17<br>Cost of Goods Manufactured

| $\frac{\text { CaseA }}{(a)}$ | $\frac{\text { CaseB }}{103,000}$ |
| :---: | :---: |
| $\$ 70,000$ | 150,000 |
| 63,000 | $(\mathrm{~d})$ |
| 240,000 | $(\mathrm{e})$ |
| (b) | 45,000 |
| 300,000 | (f) |
| (c) | 40,000 |
| 205,000 | $(\mathrm{~g})$ |

## Instructions

Indicate the missing amount for each letter. Assume that overhead is applied on the basis of direct labor cost and that the rate is the same for both cases.

Ans: N/A, LO: 1, 2, 3, 4, Bloom: AN, Difficulty: Hard, Min: 9, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: Business Economics

Solution 168 (9-12 min.)

## CaseA

(a) $+\$ 70,000+\$ 63,000=\$ 240,000$
$\$ 300,000-(\mathrm{c})=\$ 205,000$
(a) $=\$ 107,000$
$(c)=\$ 95,000$
$\$ 240,000+(b)=\$ 300,000$
$(b)=\$ 60,000$
CaseB [Note that the overhead rate from Case A is $90 \%(\$ 63,000 \div \$ 70,000)$ ]

$$
\begin{array}{ll}
\$ 150,000 \times 90 \%=(\mathrm{d}) & \$ 388,000+\$ 45,000=(\mathrm{f}) \\
(\mathrm{d})=\$ 135,000 & (\mathrm{f})=\$ 433,000 \\
\$ 103,000+\$ 150,000+\$ 135,000=(\mathrm{e}) & \$ 433,000-\$ 40,000=(\mathrm{g}) \\
(\mathrm{e})=\$ 388,000 & (\mathrm{~g})=\$ 393,000
\end{array}
$$

Ex. 169
Fort Corporation had the following transactions during its first month of operations:

1. Purchased raw materials on account, $\$ 85,000$.
2. Raw Materials of $\$ 30,000$ were requisitioned to the factory. An analysis of the materials requisition slips indicated that $\$ 6,000$ was classified as indirect materials.
3. Factory labor costs incurred were $\$ 175,000$ of which $\$ 145,000$ pertained to factory wages payable and $\$ 30,000$ pertained to employer payroll taxes payable.
4. Time tickets indicated that $\$ 145,000$ was direct labor and $\$ 30,000$ was indirect labor.
5. Overhead costs incurred on account were $\$ 198,000$.
6. Manufacturing overhead was applied at the rate of $150 \%$ of direct labor cost.
7. Goods costing $\$ 115,000$ are still incomplete at the end of the month; the other goods were completed and transferred to finished goods.
8. Finished goods costing $\$ 100,000$ to manufacture were sold on account for $\$ 130,000$.
Ex. 169 (Cont.)
Instructions
Journalize the above transactions for Fort Corporation.
Ans: N/A, LO: 1, 2, 3, 4, Bloom: AP, Difficulty: Medium, Min: 12, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: FSA
Solution 169 (12-17 min.)
9. Raw Materials Inventory ..... 85,000
Accounts Payable ..... 85,000
10. Work in Process Inventory ..... 24,000
Manufacturing Overhead ..... 6,000
Raw Materials Inventory ..... 30,000
11. Factory Labor ..... 175,000
Factory Wages Payable ..... 145,000
Employer Payroll Taxes Payable ..... 30,000
12. Work in Process Inventory ..... 145,000
Manufacturing Overhead ..... 30,000
Factory Labor ..... 175,000
13. Manufacturing Overhead ..... 198,000
Accounts Payable ..... 198,000
14. Work in Process Inventory ..... 217,500Manufacturing Overhead.217,500
$(\$ 145,000 \times 150 \%=\$ 217,500)$7. Finished Goods Inventory.271,500Work in Process Inventory271,500$(\$ 24,000+\$ 145,000+\$ 217,500=\$ 386,500)$$(\$ 386,500-\$ 115,000=\$ 271,500)$
15. Accounts Receivable ..... 130,000Sales Revenue130,000
Cost of Goods Sold ..... 100,000
Finished Goods Inventory ..... 100,000

Ex. 170
Lando Company reported the following amounts for 2017:

| Raw materials purchased | $\$ 85,000$ |
| :--- | ---: |
| Beginning raw materials inventory | 5,200 |
| Ending raw materials inventory | 4,500 |
| Beginning finished goods inventory | 7,600 |
| Ending finished goods inventory | 8,000 |
| Direct labor used | 20,000 |
| Manufacturing overhead costs applied | 30,000 |
| Beginning work in process inventory | 6,100 |
| Ending work in process inventory | 6,300 |

Ex. 170
(Cont.)

## Instructions

Calculate (a) the cost of materials used in production and (b) total manufacturing costs.
Ans: N/A, LO: 1, 2, Bloom: AP, Difficulty: Medium, Min: 4, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Business Economics

Solution 170 (4 min.)
(a) Cost of materials used in production: $\$ 5,200+\$ 85,000-\$ 4,500=\$ 85,700$
(b) Total manufacturing costs: $\$ 85,700+\$ 20,000+\$ 30,000=\$ 135,700$

Ex. 171
A job cost sheet of Fugate Company is given below.


## Instructions

(a) Answer the following questions.
(1) What is the predetermined manufacturing overhead rate?
(2) What are the total cost and the unit cost of the completed job?
(b) Prepare the entry to record the completion of the job.

## Solution 171 ( 8 min .)

(a)
(1) The predetermined overhead rate is $150 \%$ of direct labor cost. For example, on May 15, the computation is $\$ 825 \div \$ 550=150 \%$. The same result is obtained on May 22 and 31 .
(2) The total cost is:

Direct materials
Direct labor
$\qquad$
Manufacturing overhead $\qquad$ 1,700

The unit cost is $\$ 6.38(\$ 9,570 \div 1,500)$
(b) May 31 Finished Goods Inventory $\ldots . . . . . . . . . . . . . . . .$. 9,570
Work in Process Inventory. $\qquad$
Ex. 172
At May 31, 2017, the accounts of Kuhlmann Manufacturing Company show the following.

1. May 1 inventories-finished goods $\$ 12,600$, work in process $\$ 14,700$, and raw materials \$8,200.
2. May 31 inventories-finished goods $\$ 8,500$, work in process $\$ 22,900$, and raw materials \$7,100.
3. Debit postings to work in process were: direct materials $\$ 77,400$, direct labor $\$ 50,000$, and manufacturing overhead applied \$45,000.
4. Sales totaled $\$ 225,000$.

## Instructions

(a) Prepare a condensed cost of goods manufactured schedule.
(b) Prepare an income statement for May through gross profit.

Ans: N/A, LO: 1, 4, Bloom: AP, Difficulty: Medium, Min: 10, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution 172 ( 10 min .)
(a)

## KUHLMANN MANUFACTURING COMPANY

Cost of Goods Manufactured Schedule
For the Month Ended May 31, 2017

|  |  | \$ 14,700 |
| :---: | :---: | :---: |
| Direct materials used. | \$77,400 |  |
| Direct labor. | 50,000 |  |
| Manufacturing overhead applied ............................. | 45,000 |  |
| Total manufacturing costs................................ |  | 172,400 |
| Total cost of work in process |  | 187,100 |
| Less: Work in process, May 31. |  | 22,900 |
| Cost of goods manufactured .................................. |  | \$164,200 |

## Solution 172 (Cont.)

(b)

KUHLMANN MANUFACTURING COMPANY
Cost of Goods Manufactured Schedule
For the Month Ended May 31, 2017

| Sales.................................................................. |  | \$225,000 |
| :---: | :---: | :---: |
| Cost of goods sold |  |  |
| Finished goods, May 1 ..................................... | \$ 12,600 |  |
| Cost of Goods manufactured........................... | 164,200 |  |
| Cost of goods available for sale....................... | 176,800 |  |
| Finished goods, May 31 | 8,500 |  |
| Cost of goods sold ................................. |  | 168,300 |
| Gross profit ....................................................... |  | \$56,700 |

Ex. 173
Watson Manufacturing Company employs a job order cost accounting system and keeps perpetual inventory records. The following transactions occurred in the first month of operations:

1. Direct materials requisitioned during the month:

| Job 101 | $\$ 20,000$ |
| :---: | ---: |
| Job 102 | 16,000 |
| Job 103 | $\underline{24,000}$ |
|  | $\underline{\$ 60,000}$ |

2. Direct labor incurred and charged to jobs during the month was:

| Job 101 | $\$ 32,000$ |
| :---: | ---: |
| Job 102 | 28,000 |
| Job 103 | $\underline{\$ 0,000}$ |
|  | $\underline{880,000}$ |

3. Manufacturing overhead was applied to jobs worked on using a predetermined overhead rate based on $75 \%$ of direct labor costs.
4. Actual manufacturing overhead costs incurred during the month amounted to $\$ 66,000$.
5. Job 101 consisting of 1,000 units and Job 103 consisting of 200 units were completed during the month.

## Instructions

(a) Prepare journal entries to record the above transactions.
(b) Answer the following questions:

1. How much manufacturing overhead was applied to Job 103 during the month?
2. Compute the unit cost of Jobs 101 and 103.
3. What is the balance in Work In Process Inventory at the end of the month?
4. Determine if manufacturing overhead was under- or overapplied during the month. How much?

Solution 173 (15-20 min.)
(a) 1. Work in Process Inventory.................................................... 60,000

Raw Materials Inventory ...................................................6000
2. Work in Process Inventory..................................................... 80,000

Factory Labor .............................................................. 80,000
3. Work in Process Inventory...................................................... 60, 600

Manufacturing Overhead ............................................. 60,000
4. Manufacturing Overhead..................................................... 66,000

Cash, Payables, etc...................................................... 66,000
5. Finished Goods Inventory................................................... 135,000

Work in Process Inventory ............................................ 135,000 [Job 101 \$76,000; Job 103 \$59,000—see (b) 2]
(b) 1. $\$ 15,000(\$ 20,000 \times 75 \%)$.
2. Unit cost: Job 101, \$76; Job 103, \$295.

|  | $\underline{\text { Job101 }}$ | $\underline{\text { Job103 }}$ |
| :--- | :---: | :---: |
| Direct materials | $\$ 20,000$ | $\$ 24,000$ |
| Direct labor | 32,000 | 20,000 |
| Overhead applied | $\frac{24,000}{76,000}$ | $\underline{15,000}$ |
| Total cost | $\underline{\div 1,000}$ | $\frac{59,000}{\div 200}$ |
| Units | $\underline{\$ 76}$ | $\underline{\$ 295}$ |
| Unit cost |  |  |

3. Work In Process Inventory is $\$ 65,000$ and consists of work performed on Job 102.

| Direct materials | $\underline{\mathbf{J o b} 102}$ |
| :--- | :---: |
| Direct labor | 28,000 |
| Overhead applied | $\underline{21,000}$ |
| Total cost | $\underline{\$ 65,000}$ |

4. Manufacturing overhead costs were underapplied by $\$ 6,000$ during the month.

| Actual manufacturing overhead | $\$ 66,000$ |
| :--- | :--- |
| Manufacturing overhead applied | $\underline{60,000}$ |
| Underapplied overhead | $\underline{\underline{\$ 6,000}}$ |

Ex. 174
Graham Manufacturing is a small manufacturer that uses machine-hours as its activity base for assigned overhead costs to jobs. The company estimated the following amounts for 2017 for the company and for Job 62:

|  | Company | Job62 |
| :--- | :---: | :---: |
| Direct materials | $\$ 60,000$ | $\$ 4,500$ |
| Direct labor | $\$ 25,000$ | $\$ 2,500$ |
| Manufacturing overhead costs | $\$ 72,000$ |  |
| Machine hours | 90,000 | 1,350 |

During 2017, the actual machine-hours totaled 95,000, and actual overhead costs were $\$ 71,000$.

## Ex. 174 (Cont.)

## Instructions

(a) Compute the predetermined overhead rate.
(b) Compute the total manufacturing costs for Job 62.
(c) How much overhead is over or underapplied for the year for the company? State amount and whether it is over- or underapplied.
(d) If Graham Manufacturing sells Job 62 for $\$ 14,000$, compute the gross profit.

Ans: N/A, LO: 1,2,5, Bloom: AP, Difficulty: Medium, Min: 7, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: Business Economics

Solution 174 (7-9 min.)
(a) $\$ 72,000 \quad 90,000=\$ 0.80$ per machine hour
(b) $\$ 4,500+\$ 2,500+(\$ 0.80 \times 1,350)=\$ 8,080$
(c) Actual - Applied $=$ Over/Underapplied $\$ 71,000-(\$ 0.80 \times 95,000)=\$ 5,000$ overapplied
(d) $\$ 14,000-\$ 8,080($ from $(b)$ above $)=\$ 5,920$

Ex. 175
The following inventory information is available for Ricci Manufacturing Corporation for the year ended December 31, 2017:

| Inventories: | Beginning | Ending |
| :---: | :---: | :---: |
| Raw materials | $\$ 17,000$ | $\$ 19,000$ |
| Work in process | 9,000 | 14,000 |
| Finished goods | $\underline{\$ 1,000}$ | $\underline{8,000}$ |
| Total | $\underline{\$ 37,000}$ | $\underline{\$ 41,000}$ |

In addition, the following transactions occurred in 2017:

1. Raw materials purchased on account, $\$ 75,000$.
2. Incurred factory labor, $\$ 80,000$, all is direct labor. (Credit Factory Wages Payable).
3. Incurred the following overhead costs during the year: Utilities $\$ 6,800$, Depreciation on manufacturing machinery $\$ 8,000$, Manufacturing machinery repairs $\$ 9,200$, Factory insurance \$9,000 (Credit Accounts Payable and Accumulated Depreciation).
4. Assigned $\$ 80,000$ of factory labor to jobs.
5. Applied $\$ 36,000$ of overhead to jobs.

## Instructions

(a) Journalize the above transactions.
(b) Reproduce the manufacturing cost and inventory accounts. Use T-accounts.
(c) From an analysis of the accounts, compute the following:

1. Raw materials used.
2. Completed jobs transferred to finished goods.
3. Cost of goods sold.
4. Under- or overapplied overhead.

Solution 175 (16-22 min.)
(a) 1. Raw Materials Inventory

75,000
Accounts Payable 75,000
2. Factory Labor $\qquad$ 80,000
Factory Wages Payable 80,000
3. Manufacturing Overhead $\qquad$
Accounts Payable
33,000
Accumulated Depreciation ..............................................
25,000
8,000
4. Work in Process Inventory

80,000
Factory Labor $\qquad$ 80,000
5. Work in Process Inventory

36,000
Manufacturing Overhead
36,000
(b)


| Finished Goods Inventory |  |  |
| :--- | :---: | :---: |
| Bal. | $\overline{11,000}$ |  |
|  | $\overline{8,000}$ |  |


| Manufacturing Overhead |  |  |  |
| :--- | :--- | :--- | :--- |
| $(3)$ | 33,000 | $(5)$ | 36,000 |


| Factory |  |  |  |
| :---: | :--- | :--- | :--- |
| Labor |  |  |  |
| $(2)$ | 80,000 | $(4)$ | 80,000 |

Cost of Goods Sold
(c) 1. Raw materials used $=\$ 17,000+\$ 75,000-\$ 19,000=\$ 73,000$.
2. Completed jobs transferred to finished goods $=\mathrm{W} / \mathrm{P}$ debits $\$ 9,000+\$ 73,000+\$ 116,000-\$ 14,000=\$ 184,000$.
3. Cost of goods sold $=\$ 11,000+\$ 184,000-\$ 8,000=\$ 187,000$.
4. Overhead overapplied $=\$ 3,000$ (credit balance in Manufacturing Overhead).

Ex. 176
Builder Bug Company allocates manufacturing overhead at $\$ 9$ per direct labor hour. Job A45 required 4 boxes of direct materials at a cost of $\$ 30$ per box and took employees 14 hours to complete. Employees earn $\$ 15$ per hour.

## Instructions

Compute the total cost of Job A45.

Solution 176 ( 5 min .)
Direct materials (4 boxes $\times \$ 30$ ) $\$ 120$
Direct labor (14 hours $\times \$ 15$ ) 210
Manufacturing overhead (14 hours $\times \$ 9$ )
Total job cost of Job A45
126
\$456
Ex. 177
Job cost sheets for Howard Manufacturing are as follows:

Job No $\underline{210}$

| Date |  | DirectMaterials |  |
| ---: | :---: | :---: | :---: |
| 1 | 9,000 |  | DirectLabor |
| 8 | 8,500 | 8,000 |  |
| 10 |  | 10,000 |  |
| 15 | 5,500 |  |  |
| 25 |  | 20,000 |  |

Job No $\underline{21}$ :
20,000

Quantity 1,500
Manufacturing
Overhead
12,000

Quantity $\quad \underline{1,200}$

Manufacturing

| Date |  | DirectMaterials |  |
| ---: | :---: | :---: | :---: |
| 1 | 5,000 |  | DirectLabor |
| 10 | 9,000 | 6,000 |  |
| 15 |  | 8,000 |  |
| 20 | 7,000 |  |  |
| 27 |  | 12,000 |  |

## Instructions

(a) Answer the following questions.

1. What was the balance in Work in Process Inventory on July 1 if these were the only unfinished jobs?
2. What was the predetermined overhead rate in June if overhead was applied on the basis of direct labor cost?
3. If July is the start of a new fiscal year and the overhead rate is $20 \%$ higher than in the preceding year, how much overhead should be applied to Job 210 in July?
4. Assuming Job 210 is complete, what is the total and unit cost of the job?
5. Assuming Job 211 is the only unfinished job at July 31, what is the balance in Work in Process Inventory on this date?
(b) Journalize the summary entries to record the assignment of costs to the jobs in July. (Note: Make one entry in total for each manufacturing cost element.)

Solution 177 (15-20 min.)
(a) 1. Job $210-\$ 9,000+\$ 8,000+\$ 12,000=\$ 29,000$

Job $211-\$ 5,000+\$ 6,000+\$ 9,000=\frac{20,000}{\$ 49,000}$
2. Manufacturing overhead rate $=150 \%$ of direct labor cost $(\$ 12,000 \div \$ 8,000$
or $\$ 9,000 \div \$ 6,000$ )
3. July overhead rate $=150 \% \times 120 \%=180 \%$

Overhead applied in July $=\$ 30,000 \times 180 \%=\$ 54,000$
4. Direct materials $\quad \$ 23,000$

Direct labor 38,000
Manufacturing overhead (\$12,000 + \$54,000)
Total cost
66,000

Unit cost $(\$ 127,000 \div 1,500)$
\$127,000
\$84.67
$\begin{array}{lc}\text { 5. Direct materials } & \$ 21,000 \\ \text { Direct labor } & 26,000 \\ \text { Manufacturing overhead }(\$ 9,000+\$ 36,000) & \underline{45,000} \\ \text { Total cost of work in process } & \underline{\$ 92,000}\end{array}$
(b) Work in Process Inventory

30,000
Raw Materials Inventory
30,000
Work in Process Inventory
50,000
Factory Labor
50,000
Work in Process Inventory ......................................................... 90,000

Ex. 178
Garner Company begins operations on July 1, 2017. Information from job cost sheets shows the following:

| Manufacturing Costs Assigned |  |  |  |
| :---: | ---: | :---: | :---: |
| JobNo. | July | August | September |
| 100 | $\$ 12,000$ | $\$ 8,800$ | $\$ 12,000$ |
| 101 | 10,800 | 9,700 | 6,000 |
| 102 | 5,000 |  | 71,800 |
| 103 |  | 5,800 | 7,000 |

Job 102 was completed in July. Job 100 was completed in August, and Jobs 101 and 103 were completed in September. Each job was sold for $60 \%$ above its cost in the month following completion.

Ex. 178 (Cont.)

## Instructions

(a) Compute the balance in Work in Process Inventory at the end of July.
(b) Compute the balance in Finished Goods Inventory at the end of September.
(c) Compute the gross profit for August.

Ans: N/A, LO: 2, 4, Bloom: AP, Difficulty: Medium, Min: 10, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA
PC: Problem Solving, IMA: Reporting
Solution 178 (10-13 min.)
(a) Work in Process Inventory

July Job 100 Job 101
Balance, July 31
(b) Finished Goods Inventory

| Job 101 | $\$ 32,500$ |
| :--- | :--- |
| Job 103 | $\underline{17,800}$ |
| 50300 |  |

Balance, Sept. 30
\$50,300
(c) Gross Profit
$\frac{\text { Month }}{\text { August }} \quad \frac{\text { JobNumber }}{102} \quad \frac{\text { Sales }}{\$ 8,000} \quad \frac{\text { COGS }}{\$ 5,000} \quad \frac{\text { GrossProfit }}{\$ 3,000}$

Ex. 179
The accounting records of Roland Manufacturing Company include the following information:

|  | Dec. 31 | Jan.1 |
| :--- | ---: | ---: |
| Work in process inventory | $\$ 20,000$ | $\$ 50,000$ |
| Finished goods inventory | 120,000 | 150,000 |
| Direct materials used | 350,000 |  |
| Direct labor | 160,000 |  |
| Selling expenses | 125,000 |  |

Manufacturing overhead is applied at a rate of $150 \%$ of direct labor cost.

## Instructions

Answer the following questions:

1. What is the total of the debits to Work in Process Inventory during the year?
2. What is the amount transferred to Finished Goods Inventory during the year?
3. What is the cost of goods sold?

PC: Problem Solving, IMA: FSA

Solution 179 (10-14 min.)

| 1. Direct Materials | $\$ 350,000$ |
| :--- | :---: |
| Direct Labor | 160,000 |
| Manufacturing Overhead Applied $(\$ 160,000 \times 150 \%)$ | $\underline{240,000}$ |
| Total debits | $\underline{\$ 750,000}$ |

2. 

WORK IN PROCESS INVENTORY

| Balance | 50,000 | Transferred to |  |
| :--- | ---: | ---: | ---: |
| From (1) | $\underline{750,000}$ | Finished Goods | 780,000 |
| Balance | 20,000 |  |  |

3. 

FINISHED GOODS INVENTORY

| Balance | 150,000 | Cost of Goods Sold | 810,000 |
| :--- | :--- | :--- | :--- |
| From WIP (see 2) | $\underline{780,000}$ |  |  |
| Balance | 120,000 |  |  |

Ex. 180
Grant Marwick and Associates, a CPA firm, uses job order costing to capture the costs of its audit jobs. There were no audit jobs in process at the beginning of November. Listed below are data concerning the three audit jobs conducted during November.

Direct materials

| Rondelli | $\frac{\text { Preston }}{}$ | Lopez |
| :---: | :---: | :---: |
| $\$ 9900$ | $\$ 600$ | $\$ 300$ |
| $\$ 5,900$ | $\$ 6,600$ | $\$ 3,700$ |
| 66 | 88 | 45 |

Overhead costs are applied to jobs on the basis of auditor hours, and the predetermined overhead rate is $\$ 50$ per auditor hour. The Rondelli job is the only incomplete job at the end of November. Actual overhead for the month was $\$ 10,500$.

## Instructions

(a) Determine the cost of each job.
(b) Indicate the balance of the Work in Process account at the end of November.
(c) Calculate the ending balance of the Manufacturing Overhead account for November.

Ans: N/A, LO: 2, 3, 5, Bloom: AP, Difficulty: Medium, Min: 8, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution 180 ( 8 min .)

|  | $\underline{2}$ Rondelli | $\underline{\text { Preston }}$ | $\underline{\text { Lopez }}$ |
| :--- | ---: | ---: | ---: |
| Direct materials | $\$ 900$ | $\$ 600$ | $\$ 300$ |
| Auditor labor costs | 5,900 | 6,600 | 3,700 |
| Applied overhead | $\underline{3,300}$ | $\underline{4,400}$ | $\underline{\underline{2,250}}$ |
| Total cost | $\underline{\$ 10,100}$ | $\underline{\underline{\$ 11,600}}$ | $\underline{\underline{\$ 6,250}}$ |

(b) The Rondelli job is the only incomplete job, therefore, $\$ 10,100$
(c) Actual overhead $\$ 10,500$ (DR)

Applied overhead $\quad \underline{9,950}$ (CR)
Balance $\quad \underline{\underline{550}}(\mathrm{DR})$

Ex. 181
Gallagher Company applies manufacturing overhead to jobs on the basis of machine hours used. Overhead costs are expected to total $\$ 425,000$ for the year, and machine usage is estimated at 125,000 hours.

For the year, $\$ 450,000$ of overhead costs are incurred and 130,000 hours are used.

## Instructions

(a) Compute the manufacturing overhead rate for the year.
(b) What is the amount of under - or overapplied overhead at December 31?
(c) Assuming the under - or overapplied overhead for the year is not allocated to inventory accounts, prepare the adjusting entry to assign the amount to cost of goods sold
Ans: N/A, LO: 3, 5, Bloom: AP, Difficulty: Medium, Min: 6, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: Business Economics

Solution 181 (6 min.)
(a) $\$ 3.40$ per machine hour $(\$ 425,000 \div 125,000)$.
(b) $\quad(\$ 450,000)-(\$ 3.40 \bigcirc 30,000$ Machine Hours $)$ $\$ 450,000-\$ 442,000=\$ 8,000$ underapplied
(c) Cost of Goods Sold ............................ 8,000

Manufacturing Overhead 8,000

Ex. 182
Fancy Decorating uses a job order costing system to collect the costs of its interior decorating business. Each client's consultation is treated as a separate job. Overhead is applied to each job based on the number of decorator hours incurred. Listed below are data for the current year.

| Budgeted overhead | $\$ 880,000$ |
| :--- | ---: |
| Actual overhead | $\$ 910,000$ |
| Budgeted decorator hours | 40,000 |
| Actual decorator hours | 41,000 |

The company uses Operating Overhead in place of Manufacturing Overhead.
Instructions
(a) Compute the predetermined overhead rate.
(b) Prepare the entry to apply the overhead for the year.
(c) Determine whether the overhead was under - or overapplied and by how much.

[^0]
## Solution 182 (6 min.)

(a) Predetermined overhead rate $=$ Budgeted overhead $\div$ Budgeted

$$
\begin{aligned}
& \text { decorator hours } \\
= & \$ 880,000 \div 40,000 \text { decorator hours } \\
= & \$ 22 \text { per decorator hour }
\end{aligned}
$$

(b) AppliedOverhead
Work in Process (41,000 hrs O 22 ).............. 902,000
Operating Overhead...........
(c) Actual overhead $\$ 910,000$

Applied overhead $\underline{\underline{902,000}}$
Balances $\quad \$ 8,000$ underapplied
Ex. 183
Martin Company applies manufacturing overhead based on direct labor hours. Information concerning manufacturing overhead and labor for the year follows:

| Actual manufacturing overhead | $\$ 80,000$ |
| :--- | ---: |
| Estimated manufacturing overhead | $\$ 75,000$ |
| Direct labor hours incurred | 4,800 |
| Direct labor hours estimated | 5,000 |

## Instructions

Compute (a) the predetermined overhead rate and (b) the amount of applied manufacturing overhead.

Ans: N/A, LO: 3, Bloom: AP, Difficulty: Medium, Min: 4, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA
PC: Problem Solving, IMA: Business Economics
Solution 183 (4 min.)
(a) Predetermined overhead rate: $\$ 75,000 \quad 5,000=\$ 15$ per direct labor hour
(b) Applied manufacturing overhead: $4,800 \times \$ 15=\$ 72,000$

Ex. 184
Landis Company uses a job order cost system in each of its two manufacturing departments. Manufacturing overhead is applied to jobs on the basis of direct labor cost in Department A and machine hours in Department B. In establishing the predetermined overhead rates for 2017, the following estimates were made for the year:

Department

|  | A |  |
| :--- | ---: | ---: |
|  | $\$ 2,100,000$ | B |
| Manufacturing overhead | $1,500,000$ | $1,400,000$ |
| Direct labor cost | 100,000 | 100,000 |
| Direct labor hours | 200,000 | 400,000 |
| Machine hours |  |  |

Ex. 184 (Cont.)
During January, the job cost sheet showed the following costs and production data:
Department
Direct materials used
Direct labor cost
Manufacturing overhead incurred
Direct labor hours
Machine hours

| Department |  |
| :---: | ---: |
| A | B |
| ${ } \mathbf{1 9 5 , 0 0 0} }$ | $\$ 128,000$ |
| 100,000 | 110,000 |
| 130,000 | 135,000 |
| 8,000 | 8,400 |
| 16,000 | 34,000 |

## Instructions

(a) Compute the predetermined overhead rate for each department.
(b) Compute the total manufacturing cost assigned to jobs in January in each department.
(c) Compute the balance in the Manufacturing Overhead account at the end of January and indicate whether overhead is over- or underapplied.

Ans: N/A, LO: 3, 5, Bloom: AP, Difficulty: Medium, Min: 15, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: Business Economics
Solution 184 (15-20 min.)
(a) Predetermined overhead rates:

DepartmentA (using direct labor cost): $\$ 2,100,000 \div \$ 1,500,000=140 \%$
DepartmentB (using machine hours): $\$ 1,400,000 \div 400,000=\$ 3.50$ per machine hour
(b) Total manufacturing costs by department:

DepartmentA:
Direct materials \$195,000
Direct labor cost
Manufacturing overhead applied $(\$ 100,000 \times 140 \%) \quad 140,000$
Total manufacturing costs $\underline{\underline{\$ 435,000}}$ DepartmentB:

Direct materials $\$ 128,000$
Direct labor cost
110,000
Manufacturing overhead applied (34,000 hrs. $\times \$ 3.50$ )
Total manufacturing costs
119,000
\$357,000
(c)

MANUFACTURING OVERHEAD

| Dept. A | 130,000 | Dept. A | 140,000 |
| :--- | ---: | :--- | :--- |
| Dept. B | $\underline{135,000}$ | Dept. B | $\underline{119,000}$ |
| Bal. Underapplied | 6,000 |  |  |

## Ex. 185

Edwards Company applies manufacturing overhead to jobs on the basis of machine hours used. Overhead costs are expected to total $\$ 1,800,000$ for the year, and machine usage is estimated at 200,000 hours.

In January, $\$ 186,000$ of overhead costs are incurred and 22,000 machine hours are used. For the remainder of the year, $\$ 1,940,000$ of additional overhead costs are incurred and 214,000 additional machine hours are worked.

## Instructions

(a) Compute the manufacturing overhead rate for the year.
(b) What is the amount of over- or underapplied overhead at January 31?
(c) What is the amount of over- or underapplied overhead at December 31?

Ans: N/A, LO: 3, 5, Bloom: AP, Difficulty: Medium, Min: 11, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: Problem Solving, IMA: Business Economics
Solution 185 (11-14 min.)
(a) $\$ 9$ per machine hour $(\$ 1,800,000 \div 200,000)$
(b) Incurred

Applied (\$9 $\times 22,000$ )
Overapplied overhead
(c) Incurred ( $\$ 186,000+\$ 1,940,000)$

Applied ( $\$ 9 \times 236,000$ )
Underapplied overhead
\$186,000
198,000
$\$ 12,000$
\$2, 126,000
2,124,000
$\$ \quad 2,000$

Ex. 186
Klinger Company estimates that annual manufacturing overhead costs will be $\$ 4,800,000$ for 2017. The actual overhead costs at the end of 2017 are $\$ 4,980,000$. Activity base information for 2017 follows:

| ActivityBase | Estimated | Actual |
| :--- | ---: | ---: |
| Direct Labor Cost | $\$ 3,000,000$ | $\$ 3,150,000$ |
| Direct Labor Hours | 200,000 | 21,000 |
| Machine Hours | 150,000 | 152,000 |

## Instructions

(a) Compute the predetermined overhead rate for each activity base.
(b) Compute the amount of overhead applied in 2017 for each activity base.
(c) Compute the amount of under- or overapplied overhead for 2017 for each activity base.

Solution 186 (12-16 min.)
(a) Predeterminedoverheadrate asa\%ofdirectlaborcost: $\$ 4,800,000 \div \$ 3,000,000=160 \%$

Predeterminedoverheadrate per hour ofdirectlabor:
$\$ 4,800,000 \div 200,000=\$ 24$ per hour

Predeterminedoverheadrate per machinehour used:
$\$ 4,800,000 \div 150,000=\$ 32$ per machine hour
(b) Overheadappliedasa\%ofdirectlaborcost:
$\$ 3,150,000 \times 1.60=\$ 5,040,000$
Overheadappliedper hour ofdirectlabor:
$212,000 \times \$ 24=\$ 5,088,000$
Overheadappliedper machinehour used:
$152,000 \times \$ 32=\$ 4,864,000$
(c) Over-orUnderappliedOverhead (\$5,040,000 - \$4,980,000 = \$60,000 Overapplied)
$(\$ 5,088,000-\$ 4,980,000=$ \$108,000 Overapplied)
$(\$ 4,864,000-\$ 4,980,000=$ \$116,000 Underapplied)

Ex. 187
Jensen Manufacturing Company makes specialty tools. In January, Jensen incurs manufacturing costs of $\$ 13,000,000$ for direct materials, direct labor, and overhead. $20 \%$ of the total costs represents overhead applied. The overhead rate is $\$ 1$ for every $\$ 2$ of direct labor costs incurred. Inventory balances were:

## Raw materials

Work in process
Finished goods

| January 1 |  | January 31 |
| ---: | ---: | ---: |
| $\$ 300,000$ | $\$ 500,000$ |  |
| 600,000 |  | 400,000 |
| 400,000 |  | 200,000 |

At the end of January, there was $\$ 1,000$ of overapplied overhead.
Instructions
(a) Determine the cost of raw materials purchased in January.
(b) Prepare a cost of goods manufactured schedule for January 2017.
(c) Compute the cost of goods sold for January.

Ans: N/A, LO: 4, Bloom: AP, Difficulty: Medium, Min: 15, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

Solution 187 (15-20 min.)
(a) Overhead applied $(\$ 13,000,000 \times 20 \%)=\$ 2,600,000$

Direct labor used $(\$ 2 \times \$ 2,600,000)=\$ 5,200,000$
Direct materials used $(\$ 13,000,000-\$ 7,800,000)=\$ 5,200,000$

Solution 187 (Cont.)

| Ending raw materials inventory | $\$ 500,000$ |
| :--- | ---: |
| Direct materials used | $\underline{5,200,000}$ |
|  | $\underline{5,700,000}$ |
| Lesp | $\underline{\$ 5,400,000}$ |

(b)

JENSEN MANUFACTURING COMPANY
Cost of Goods Manufactured Schedule
For the Month Ended January 31, 2017

| Work in process, January 1 |  | \$ 600,000 |
| :---: | :---: | :---: |
| Direct materials used | \$5,200,000 |  |
| Direct labor | 5,200,000 |  |
| Manufacturing overhead applied. | 2,600,000 |  |
| Total manufacturing costs |  | 13,000,000 |
| Total cost of work in process |  | 13,600,000 |
| Less: Work in process, January 31 |  | 400,000 |
| Cost of goods manufactured. |  | \$13,200,000 |
| Finished goods, January 1. |  | \$ 400,000 |
| Cost of goods manufactured. |  | 13,200,000 |
| Cost of goods available for sale |  | 13,600,000 |
| Finished goods, January 31. |  | 200,000 |
| Cost of goods sold |  | \$13,400,000 |

Ex. 188
The following information is available for Marks Company at December 31, 2017:

1. Inventory balance

Finished Goods

| BeginningofYear |  | End ofYear |
| :---: | :---: | ---: |
| $\$ 14,000$ |  | $\$ 10,000$ |
| 6,000 |  | 12,000 |
| 10,300 |  | 6,500 |

2. Debit postings to Work in Process Inventory during the year were:

| Direct materials | $\$ 90,000$ |
| :--- | ---: |
| Direct labor | 60,000 |
| Manufacturing overhead applied | 75,000 |

3. Sales totaled $\$ 310,000$ for the year.

Instructions
(a) Prepare a condensed cost of goods manufactured schedule.
(b) Prepare an income statement for the year through gross profit.

[^1]Solution 188 (14-18 min.)
(a)

## MARKS COMPANY

Cost of Goods Manufactured Schedule
For the Year Ended December 31, 2017

| Work in process, January 1 |  | 6,000 |
| :--- | ---: | ---: |
| Direct materials used | $\$ 90,000$ |  |
| Direct labor | 60,000 |  |
| Manufacturing overhead applied | $\underline{75,000}$ | $\underline{225,000}$ |
| $\quad$ Total manufacturing costs |  | $\underline{12,000}$ |
| Total cost of work in process | $\underline{\$ 219,000}$ |  |

(b)

MARKS COMPANY
(Partial) Income Statement
For the Year Ended December 31, 2017

| Sales |  |
| :--- | :---: |
| Cost of Goods Sold | $\$ 310,000$ |
| $\quad$ Finished Goods, January 1 | $\underline{214,000}$ |
| Cost of goods manufactured | $\underline{219,000}$ |
| Cost of goods available for sale | $\underline{10,000}$ |
| Finished Goods, December 31 | $\underline{\underline{223,000}}$ |
| Cost of goods sold | $\underline{\$ 87,000}$ |

## COMPLETION STATEMENTS

189. Cost accounting involves the measuring, recording, and reporting of $\qquad$ costs.

Ans: N/A, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Business Applications
190. There are two basic types of cost accounting systems: (1) system, and (2) $\qquad$ system.

Ans: N/A, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics
191. A $\qquad$ cost system is appropriate when similar products are continuously produced, whereas a $\qquad$ cost system would be more appropriate if the product is custom-made.

Ans: N/A, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Business Applications
192. In a job order system, raw materials purchased are charged to the account.

Ans: N/A, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Industry/Sector Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
193. Of these three accounts; Raw Materials Inventory, Factory Labor, and Manufacturing Overhead, $\qquad$ is not a control account.

Ans: N/A, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting
194. If $\$ 20,000$ direct materials are requisitioned for a job and $\$ 7,000$ of indirect materials are requisitioned for general use, the debit to Work In Process Inventory should be for \$ $\qquad$ .

Ans: N/A, LO: 2, Bloom: AP, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA
195. The cost of producing a particular job under a job cost system is accumulated on a record called a $\qquad$ .

Ans: N/A, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
196. Manufacturing overhead is applied to jobs by means of a $\qquad$ rate.

Ans: N/A, LO: 3, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC None, IMA: Business Economics
197. If actual manufacturing overhead was greater than the amount of manufacturing overhead applied to jobs, the Manufacturing Overhead account will have a $\qquad$ balance and overhead is said to be $\qquad$ .

Ans: N/A, LO: 5, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: Business Economics
198. At the end of the year, any balance in the Manufacturing Overhead account should be eliminated as an adjustment to $\qquad$ .

Ans: N/A, LO: 5, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA

## Answers to Completion Statements

189. product
190. job order cost, process cost
191. process, job order
192. Raw Materials Inventory
193. Factory Labor
194. 20,000
195. job cost sheet
196. predetermined overhead
197. debit, underapplied
198. cost of goods sold

## MATCHING

199. Match the items in the two columns below by entering the appropriate code letter in the space provided.
A. Cost accounting
F. Process cost system
B. Materials requisition slip
G. Job cost sheets
C. Time ticket
H. Predetermined overhead rate
D. Cost accounting system
I. Overapplied overhead
E. Job order cost system
J. Underapplied overhead
$\qquad$ 1. Used to apply manufacturing overhead to jobs.
$\qquad$ 2. Measures, records, and reports product costs.
$\qquad$ 3. When actual manufacturing overhead costs are greater than the overhead applied to products.
$\qquad$ 4. Manufacturing cost accounts are fully integrated into the general ledger.
$\qquad$ 5. Source document which authorizes issuance of raw materials to production.
$\qquad$ 6. Appropriate when products have distinguishing and heterogeneous characteristics.
$\qquad$ 7. Constitute a subsidiary ledger for Work in Process Inventory.
$\qquad$ 8. Indicates number of hours that employees work and the account to be charged.
$\qquad$ 9. Appropriate when products are similar and are produced continuously.
$\qquad$ 10. When actual manufacturing overhead costs are less than the overhead applied to products.

Ans: N/A, LO: 1-5, Bloom: K, Difficulty: Easy, Min: 5, AACSB: None, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA PC: None, IMA: FSA

Answers to Matching

1. H
2. E
3. A
4. G
5. J
6. C
7. D
8. F
9. B
10. I

## SHORT-ANSWER ESSAY QUESTIONS

S-A E 200
(a) Distinguish between the two types of cost accounting systems. (b) May a company use both types of cost accounting systems?

Ans: N/A, LO: 1, Bloom: S, Difficulty: Easy, Min: 5, AACSB: Communications, AICPA BB: Industry/Sector Perspective, AICPA FN: Reporting, AICPA PC: Communications, IMA: Business Applications

Solution 200
(a) The two principal types of cost accounting systems are; (1) job order costing and (2) process costing. Under a job order cost system, costs are assigned to each job or batch of goods; at all times each job or batch of goods can be separately identified. A job order cost system measures costs for each completed job, rather than for set time periods. Under a process cost system, product-related costs are accumulated by or assigned to departments or processes for a set period of time. Job order costing lends itself to specific, special-order manufacturing or servicing while process costing is better suited to similar, large-volume products and continuous process manufacturing.
(b) A company may use both types of systems. For example, General Motors uses process costing for standard model cars and job order costing for custom-made vehicles.

S-A E 201
A job order cost accounting system is fully integrated into the general ledger of a company. Identify the major general ledger accounts used in a job order cost system. Explain how manufacturing costs flow through these accounts so that inventories may be costed and income determined when goods are sold.

Ans: N/A, LO: 1, Bloom: S, Difficulty: Easy, Min: 5, AACSB: Communications, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA
PC: Communications, IMA: Business Economics
Solution 201
When a job order cost accounting system is fully integrated into the general ledger of a company, the major general ledger accounts used are Raw Materials Inventory, Factory Labor, Manufacturing Overhead, Work in Process Inventory, and Finished Goods Inventory. As manufacturing costs are incurred, they are debited to the Raw Materials Inventory, Factory Labor, and Manufacturing Overhead accounts. As materials are used, labor is assigned, or overhead is applied, the costs are taken out of these accounts and debited to Work in Process Inventory. When jobs are finished, the costs flow from the Work in Process Inventory account to the Finished Goods Inventory account, and when jobs are sold, the costs are transferred to Cost of Goods Sold from Finished Goods Inventory.

S-A E 202
Manufacturing overhead items are indirect product costs that cannot be traced to individual products. Explain how manufacturing overhead costs are accumulated and how they are assigned to products in a job order cost system.

## Solution 202

As manufacturing overhead costs are incurred, they are debited to the Manufacturing Overhead account. As jobs move through the factory, manufacturing overhead costs are applied to specific jobs using the predetermined overhead rate. This rate is computed prior to the beginning of the year by dividing estimated annual overhead costs by expected annual operating activity (generally expressed as direct labor hours, direct labor cost, or machine hours). The overhead is applied by determining how much activity was expended on a particular job (for example, direct labor hours), and applying the rate to that activity.

S-A E 203
Mike Hilyer is confused about under and overapplied manufacturing overhead. Define the terms for Mike and indicate the balance in the manufacturing overhead account applicable to each term.

Ans: N/A, LO: 3, Bloom: S, Difficulty: Easy, Min: 5, AACSB: Ethics, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC:
Communications, IMA: Business Economics
Solution 203
Underapplied overhead means that the overhead assigned to work in process is less than the overhead incurred. Overapplied overhead means than the overhead assigned to work in process is greater than the overhead incurred. Manufacturing overhead will have a debit balance when overhead is underapplied and a credit balance when overhead is overapplied.

## S-A E 204 (Ethics)

People Carrier Systems, Inc. (PCS) modifies vans that seat $15-20$ people by adding additional safety features or wheelchair ramps. Most of its customers are cities and counties, who use the vans to transport school children, the elderly, or the handicapped. The company has specialized in a no-frills approach, emphasizing safety, high quality, and low cost. The company's president was quoted as saying, "Let the other guys make a van pretty. We get people where they need to go-faster, better, and cheaper than anybody else."

The company obtains jobs by being the lowest bidder in a sealed bidding process. Recently, the company was solicited by a top-10 college to submit a bid for a van to be used by its athletic team. Some specialized items were required, such as the school's logo on the outside of the van, and the vinyl seats had to be covered in school colors. The company submitted a bid, and was very surprised to obtain it.

When the job was being prepared, the job manager pointed out that several extra costs could result in this job showing a loss. The boss, an ardent supporter of sports in general and this team in particular, told the manager to just record the standard labor and overhead cost for this job. He says that they could use the preset rate for specialized jobs, and increase the overhead application rate (used in submitting bids) by $5 \%$ for future routine jobs. "After all," he says, "nobody else comes close to our price anyway. This could start a whole new line of business for us."

## Required:

1. Who are the stakeholders in the decision to increase overhead for routine jobs?
2. Is the decision to subsidize special jobs by increasing the overhead rate on routine jobs ethical? Briefly explain.

## Solution 204

1. The stakeholders include:

- The employees and managers of PCS
- Customers who purchase standard vans
- Customers who purchase sports vans
- Shareholders of PCS

2. The decision could be considered ethical, if the company clearly understands that it is allowing the customers of the standard vans to cover some of the costs of the specialty ones. This might not be a bad decision, especially if the specialty business is only a small fraction of the total business.
The company might be compromising its own best interests, however, if it arbitrarily damages relationships with existing customers in order to gain others. It seems undeniable that established customers are preferable to untested ones. While probably ethical, the decision may not be a good one.

## S-A E 205 (Communication)

Bridal Treasures, Inc. makes customized wedding gowns. The customer selects a pattern for the basic gown, and then selects fabric and trim. Once the design and the materials have been agreed upon, a Statement of Estimated Cost is signed by the company and by the customer.

Overhead is applied based on the number of days a gown is in process. Usually, five gowns are being worked on at a time. Therefore, each gown is charged $1 / 5$ of a daily estimated overhead amount.

Customer Mary Landon's wedding dress took four days to complete. However, after the first three days had elapsed, Hanna Hunt, a movie personality, suddenly decided to get married, and ordered a very lavish gown. All other work was suspended, and the work on Ms. Landon's dress was delayed six days. The final day of its construction was on the tenth day after it had been begun.

## Required:

You are the accounting manager for Bridal Treasures. Write a memo to the billing department. Instruct them as to the appropriate number of overhead days to charge to Ms. Landon's account.
Ans: N/A, LO: 3, Bloom: S, Difficulty: Easy, Min: 5, AACSB: Communications, AICPA BB: Legal/Regulatory Perspective, AICPA FN: None, AICPA PC: Communications, IMA: Business Economics

Solution 205
TO: Billing Department
FROM: M. Long, Accounting Manager
RE: Overhead billing, Landon account
As you know, our standard procedure in billing overhead is to simply multiply our daily overhead rate by the number of days the gown was in our possession. However, for the Landon gown, and any other jobs we suspended for the Hanna Hunt gown, we should not charge for the days the gowns were in our possession but not being worked on.

We should adjust the billing for the Hanna Hunt gown, so that it absorbs the full daily cost of overhead, since it actually was the only job worked on during those six days. The Landon job should be charged only four days of overhead. Other suspended jobs should be treated similarly.

Please call if you have questions.
(signed)


[^0]:    Ans: N/A, LO: 3, 5, Bloom: AP, Difficulty: Medium, Min: 6, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Measurement, AICPA
    PC: Problem Solving, IMA: Business Economics

[^1]:    Ans: N/A, LO: 4, Bloom: AP, Difficulty: Medium, Min: 14, AACSB: Analytic, AICPA BB: Legal/Regulatory Perspective, AICPA FN: Reporting, AICPA PC: Problem Solving, IMA: Reporting

