

CHAPTER 2

JOB ORDER COSTING

SUMMARY OF LEARNING OBJECTIVES BY QUESTION TYPE

Item	Type	Item	Type	Item	Type	Item	Type	Item	Type	Item	Type	Item	Type
Learning Objective 1													
1. TF		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			

Learning Objective 3													
22. TF		85. MC		93. MC		101. MC		166. Ex		180. Ex		202. SA	
23. TF		86. MC		94. MC		146. MC		167. Ex		181. Ex		203. SA	
24. TF		87. MC		95. MC		147. MC		168. Ex		182. Ex		205. SA	
34. TF		88. MC		96. MC		155. BE		169. Ex		183. Ex			
81. MC		89. MC		97. MC		156. BE		171. Ex		184. Ex			
82. MC		90. MC		98. MC		162. Ex		173. Ex		185. Ex			
83. MC		91. MC		99. MC		163. Ex		175. Ex		186. Ex			
84. MC		92. MC		100. MC		164. Ex		177. Ex		196. C			
Learning Objective 4													
25. TF		104. MC		110. MC		116. MC		122. MC		169. Ex		178. Ex	
26. TF		105. MC		111. MC		117. MC		123. MC		171. Ex		179. Ex	
27. TF		106. MC		112. MC		118. MC		157. BE		172. Ex		187. Ex	
28. TF		107. MC		113. MC		119. MC		166. Ex		173. Ex		188. Ex	
102. MC		108. MC		114. MC		120. MC		167. Ex		175. Ex			

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103. MC	109. MC	115. MC	121. MC	168. Ex	177. Ex	
Learning Objective 5						
29. TF	127. MC	133. MC	139. MC	159. BE	182. Ex	
30. TF	128. MC	134. MC	140. MC	160. BE	184. Ex	
35. TF	129. MC	135. MC	148. MC	173. Ex	185. Ex	
124. MC	130. MC	136. MC	149. MC	175. Ex	186. Ex	
125. MC	131. MC	137. MC	150. MC	180. Ex	197. C	
126. MC	132. MC	138. MC	158. BE	181. Ex	198. C	

Note: TF = True-False BE = Brief Exercise C = Completion
 MC = Multiple Choice Ex = Exercise MA = Matching
 SA = Short-Answer Essay

CHAPTER LEARNING OBJECTIVES

- Describe cost systems and the flow of costs in a 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 process cost and job order 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.
- 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.
- 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 estimated annual operating activity. This is expressed in terms of a common activity base, such as direct labor cost, direct labor hours, or machine hours. Companies use this rate to assign overhead costs to Work in Process and to specific jobs.
- 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.
- 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 actual overhead costs incurred.

TRUE-FALSE STATEMENTS

- 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: Global and Industry Perspectives, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting

2. A job order cost system is most appropriate when a large volume of uniform products is produced.

Ans: F, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: Reporting

3. A process cost 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: Global and Industry Perspectives, AICPA FN: Measurement, Analysis, and Interpretation, 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: Global and Industry Perspectives, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: Reporting

5. A job order cost system and a process cost system are two alternative methods for accumulating product costs.

Ans: T, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, 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: Global and Industry Perspectives, 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: Global and Industry Perspectives, 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: Governance 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: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: FSA

10. Recording the acquisition cost of raw materials is a part of accumulating manufacturing costs.

Ans: T, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, 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: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: FSA

12. The Purchases account is credited for all returns and allowances of raw materials purchases

Ans: F, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, 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: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, 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: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, 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: Governance Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting

16. 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: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, 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: Global and Industry Perspectives, AICPA FN: Measurement, Analysis, and Interpretation, 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: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, 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: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, 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: 3, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance 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: Global and Industry Perspectives, AICPA FN: Measurement, Analysis, and Interpretation, 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: Governance Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: FSA

23. The calculation for the predetermined overhead rate is estimated annual overhead costs divided by an estimated volume of annual operating activity.

Ans: T, LO: 3, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, 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: Governance Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting

25. Finished Goods Inventory is decreased for the cost of jobs completed during a period.

Ans: F, LO: 4, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, 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: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, 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: Governance Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: FSA

28. Total manufacturing costs for a period consists of the cost of direct materials used, the cost of direct labor incurred, and the manufacturing overhead applied during the period.

Ans: T, LO: 5 Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance 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: Moderate, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: Business Economics

30. At the end of the year, the amount of the overapplied overhead is usually credited to Cost of Goods Sold.

Ans: T, LO: 5, Bloom: C, Difficulty: Moderate, Min: 1, AACSB: None, AICPA BB: Governance 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: Global and Industry Perspectives, AICPA FN: Measurement, Analysis, and Interpretation, 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: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, 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: Global and Industry Perspectives, AICPA FN: None, AICPA PC: None, IMA: Business Economics

34. The predetermined overhead rate is based on the relationship between the estimated annual overhead costs and the estimated 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: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, 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: Governance Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting

MULTIPLE CHOICE QUESTIONS

36. Which of the following is one of the purposes of cost accounting?
- It involves measuring product costs.
 - It involves the determination of company profits.
 - 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: Global and Industry Perspectives, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: Business Economics

37. A major purpose of cost accounting is to
- classify all costs as operating or nonoperating.
 - measure, record, and report period costs.
 - provide information to stockholders for investment decisions.
 - measure, record, and report product costs.

Ans: D, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting

38. The two basic types of cost accounting systems are
- job order cost and job cost accumulation systems.
 - job order cost and process cost systems.
 - process cost and batch cost systems.
 - job order cost and batch cost systems.

Ans: B, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics

39. A process cost system would most likely be used by a company that makes
- music videos.
 - repairs to electric bicycles.
 - ramen noodles.
 - college graduation announcements.

Ans: C, LO: 1, Bloom: C, Difficulty: Moderate, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting

40. Which of the following would be accounted for using a job order cost system?
- The production of computer docking stations.
 - The production of electric cars.
 - The refining of petroleum.
 - The construction of a new campus dormitory.

Ans: D, LO: 1, Bloom: C, Difficulty: Moderate, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting

41. Process costing is used when
- the production process is continuous.
 - production is aimed at filling a specific customer order.
 - dissimilar products are involved.
 - costs are to be assigned to specific jobs.

Ans: A, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting

42. Process costing is **not** used when
- similar goods are being produced.
 - large volumes are produced.
 - jobs have distinguishing characteristics.
 - a series of connected manufacturing processes is necessary.

Ans: C, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting

43. An important feature of a job order cost system is that each job
- must be similar to previous jobs completed.
 - has its own distinguishing characteristics.
 - must be completed before a new job is accepted.
 - consists of one unit of output.

Ans: B, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting

44. As of December 31, 2022, Stand Still Industries had \$2,500 of raw materials inventory. At the beginning of 2022, 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 2022?
- \$312,000
 - \$374,500
 - \$375,500
 - \$313,000

Ans: B, LO: 1, Bloom: AP, Difficulty: Moderate, Min: 2, AACSB: Analytic, Process and Resource Management Perspectives, AICPA FN: Reporting, AICPA PC: Decision Making, IMA: Business Economics

Solution: $\$2,000 + \$375,000 - \$2,500 = \$374,500$

(Beginning raw materials inventory + Purchases – Ending raw materials inventory = Raw materials requisitioned)

45. The flow of costs in a job order cost system
- involves accumulating manufacturing costs incurred and assigning the accumulated cost to work done.
 - cannot be measured until all jobs are complete.
 - measures product costs for a set time period.
 - generally follows a LIFO cost flow assumption.

Ans: A, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: Business Economics

46. In a job order cost system, the Work in Process Inventory account is
- an expense.
 - a control account.
 - not used.
 - a period cost.

Ans: B, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance 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
- 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: Moderate, Min: 2, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, 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: Global and Industry Perspectives, AICPA FN: Measurement, Analysis, and Interpretation, 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 charged 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: Governance 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.

Ans: D, LO: 1, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, AICPA FN: Leverage Technology, AICPA PC: Project Management, IMA: Business Applications

51. The 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: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, 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. Employee benefits.
 - d. All of these are included in factory labor costs.

Ans: D, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, 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**
- the purchase of raw materials.
 - raw materials are used.
 - overhead is applied.
 - factory labor is used.

Ans: A, LO: 1, Bloom: C, Difficulty: Moderate, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting

54. Factory labor costs
- are accumulated in a control account.
 - do not include pension costs.
 - include vacation pay.
 - are based on workers' net pay.

Ans: C, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: Business Economics

55. Factory Labor is a(n)
- expense account.
 - control account.
 - subsidiary account.
 - temporary account.

Ans: D, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance 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

- \$550,000.
- \$500,000.
- \$470,000.
- \$450,000.

Ans: A, LO: 1, Bloom: AP, Difficulty: Moderate, Min: 2, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: FSA

Solution: \$500,000 + \$50,000 = \$550,000
(Gross Wages + Payroll Taxes = Factory Labor)

57. Factory labor costs
- accumulate in advance of utilization.
 - accumulate in a control account.
 - include sick pay earned by factory workers.
 - accumulate in the Factory Labor Expense account.

Ans: C, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: Business Economics

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58. Which of the following is **not** a control account?

- a. Finished Goods Inventory
- b. Raw Materials Inventory
- c. Work in Process Inventory
- d. All of these are control accounts

Ans: B, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics

59. Manufacturing Overhead does **not** include amounts paid for

- a. factory utilities.
- b. property taxes on the manufacturing facility.
- c. supervisor labor costs.
- d. the CEO's salary.

Ans: D, LO: 2, Bloom: C, Difficulty: Moderate, Min: 1, AACSB: None, AICPA BB: Governance 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: Moderate, Min: 2, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, 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: Moderate, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, 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.

Ans: C, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting

63. A materials requisition slip shows that direct materials requisitioned were \$66,000 and indirect materials requisitioned 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: Moderate, Min: 2, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: FSA

64. The job cost sheet does **not** show
- costs chargeable to a specific job.
 - the total costs of a completed job.
 - the unit cost of a completed job.
 - the cost of goods sold.

Ans: D, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics

65. Under an effective system of internal control, the authorization for issuing materials is made
- orally.
 - on a prenumbered materials requisition slip.
 - by the accounting department.
 - by anyone on the production line.

Ans: B, LO: 2, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, AICPA FN: Risk Management, AICPA PC: None, IMA: Internal Controls

66. A copy of the materials requisition slip would **not** include the
- quantity.
 - stock number.
 - cost per unit.
 - name of the supplier.

Ans: D, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, AICPA FN: Reporting, AICPA PC: None, IMA: Internal Controls

67. Materials requisition slips are costed
- by production supervisors.
 - by factory personnel who work on the production line.
 - after the goods have been sold.
 - using any of the inventory costing methods.

Ans: D, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: FSA

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68. Postings to control accounts in a costing system are made
- monthly.
 - daily.
 - annually.
 - when errors are discovered

Ans: A, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, AICPA FN: Measurement, Analysis, and Interpretation, 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?
- The total of the amounts transferred from raw materials for the current period
 - The sum of the costs shown on the job cost sheets for unfinished jobs
 - The total of manufacturing overhead applied to Work in Process for the period
 - The total manufacturing costs for the period

Ans: B, LO: 2, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting

70. Which of the following shows entries only to control accounts?
- Factory Labor
Factory Wages Payable
 - Work in Process Inventory
Factory Labor
Raw Materials Inventory
Factory Wages Payable
 - Work in Process Inventory
Manufacturing Overhead
Raw Materials Inventory
 - All of these entries include control accounts.

Ans: C, LO: 2, Bloom: C, Difficulty: Moderate, Min: 2, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: FSA

71. A time ticket does **not** indicate the
- employee's name.
 - account to be charged.
 - number of personal exemptions claimed by the employee.
 - job number.

Ans: C, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, 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?
- Raw materials receiving slips.
 - Materials purchase orders.
 - Labor time tickets.
 - Finished goods shipping documents.

Ans: C, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Internal Controls

73. Time tickets should be approved by
- the audit committee.
 - co-workers.
 - the employee's supervisor.
 - the payroll department.

Ans: C, LO: 2, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Internal Controls

74. If the entry to assign factory labor shows only a debit to Work in Process Inventory, then all labor costs were
- direct labor.
 - indirect labor.
 - overtime related.
 - regular hours.

Ans: A, LO: 2, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: FSA

75. The principal accounting record used in assigning costs to jobs is
- the job cost sheet.
 - the cost of goods manufactured schedule.
 - the Manufacturing Overhead control account.
 - the stores ledger cards.

Ans: A, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, 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 inventory on hand from this job is
- \$60,000.
 - \$390,000.
 - \$78,000.
 - \$312,000.

Ans: C, LO: 2, Bloom: AP, Difficulty: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Decision Making, IMA: Reporting

Solution: $\$120,000 + \$180,000 + \$90,000 = \$390,000$; $\$390,000 \div 5,000 = \78 ; $\$78 \times (5,000 - 4,000) = \$78,000$

(Direct materials + Direct labor + Manufacturing overhead applied = Cost of job; Cost of job $\div$ Units produced = Cost per unit; Cost per unit $\times$ Units on hand = Cost of finished goods on hand)

77. Sportly, Inc. completed Job No. B14 during 2022. The job cost sheet listed the following:

Direct materials	\$110,000
Direct labor	\$60,000
Manufacturing overhead applied	\$40,000
Units produced	3,000 units
Units sold	1,800 units

What is the cost of the finished goods inventory on hand from this job?

- \$210,000
- \$126,000
- \$ 84,000
- \$102,000

Ans: C, LO: 2, Bloom: AP, Difficulty: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Decision Making, IMA: Reporting

Solution: $\$110,000 + \$60,000 + \$40,000 = \$210,000$; $\$210,000 \div 3,000 = \70 ; $\$70 \times (3,000 - 1,800) = \$84,000$

(Direct materials + Direct labor + Manufacturing overhead applied = Cost of job; Cost of job $\div$ Units produced = Cost per unit; Cost per unit $\times$ Units on hand = Cost of finished goods on hand)

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78. Madison Inc. uses job order costing for its line of dual zone wine refrigerators. The cost incurred for production during 2022 totaled \$18,000 of materials, \$9,000 of direct labor costs, and \$6,000 of manufacturing overhead applied. The company ships the refrigerators 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 inventory totaled \$15,000, and the ending balance is \$9,000. During the year, the company completed 25 refrigerators. What is the cost per refrigerator?
- a. \$1,080
 - b. \$1,560
 - c. \$1,320
 - d. \$1,920

Ans: B, LO: 2, Bloom: AP, Difficulty: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: Business Economics

Solution: $\$15,000 + \$18,000 + \$9,000 + \$6,000 - \$9,000 = \$39,000$; $\$39,000 \div 25 = \$1,560$

(Beginning Work in Process inventory + Direct materials + Direct labor + Manufacturing overhead applied – Ending Work in Process inventory = Costs incurred for complete units; Costs incurred for complete units ÷ Units completed = Cost per completed unit)

79. As of December 31, 2022, Nilsen Industries had \$2,000 of raw materials inventory. At the beginning of 2022, 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 2022?
- a. \$354,400
 - b. \$344,400
 - c. \$352,600
 - d. \$353,600

Ans: D, LO: 2, Bloom: AP, Difficulty: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: Business Economics

Solution: $\$1,600 + \$354,000 - \$2,000 = \$353,600$

(Beginning raw materials inventory + Purchases – Ending raw materials inventory = Raw materials requisitioned)

80. Cost of goods manufactured equals \$85,000 for 2022. 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 inventory for 2022 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. \$80,500

Ans: C, LO: 3, Bloom: AP, Difficulty: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Decision Making, IMA: Reporting

Solution: $\$2,000 + \$85,000 - \$5,500 = \$81,500$

(Beginning finished goods inventory + Cost of goods manufactured – Ending finished goods inventory = Cost of goods sold)

81. A company estimated 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. What is the company's predetermined overhead rate (rounded to the nearest cent)?
- a. \$1.45
 - b. \$1.32
 - c. \$1.50
 - d. \$1.36

Ans: C, LO: 3, Bloom: AP, Difficulty: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: Business Economics

Solution: $\$1,500,000 \div \$1,000,000 = \$1.50$

(Estimated overhead ÷ Estimated direct labor cost = Predetermined overhead rate)

82. Vektek, Inc. considers machine hours to be the best activity base for applying its manufacturing overhead. In the current period, 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?
- \$2,100
 - \$102,500
 - \$105,000
 - \$2,050

Ans: B, LO: 3, Bloom: AP, Difficulty: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: FSA

Solution: $\$2,050,000 \div 20,000 = \102.50 per direct labor hour; $1,000 \times \$102.50 = \$102,500$

(Estimated overhead $\div$ Estimated direct labor hours = Predetermined overhead rate; Actual hours $\times$ Predetermined overhead rate = Overhead applied)

83. Barr Mfg. provided the following information from its accounting records for 2022:

Estimated production	60,000 labor hours
Actual production	56,000 labor hours
Estimated overhead	\$900,000
Actual overhead	\$870,000

What is the overhead application rate if Barr bases the rate on direct labor hours (rounded to the nearest cent)?

- \$16.07 per hour
- \$15.00 per hour
- \$14.50 per hour
- \$15.54 per hour

Ans: B, LO: 3, Bloom: AP, Difficulty: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: FSA

Solution: $\$900,000 \div 60,000 = \15.00 per direct labor hour

(Estimated overhead $\div$ Estimated direct labor hours = Predetermined overhead rate)

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
- \$430,000.
 - \$600,000.
 - \$450,000.
 - \$405,000.

Ans: C, LO: 3, Bloom: AP, Difficulty: Moderate, Min: 2, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: FSA

Solution: $\$180,000 \div 150\% = \$120,000$; $\$150,000 + \$120,000 + \$180,000 = \$450,000$

(Manufacturing overhead $\div$ Overhead rate = Direct labor cost; Direct materials + Direct labor + Manufacturing overhead applied = Total manufacturing cost of job)

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85. Redman Company manufactures customized sit-stand desks. The following pertains to Job No. 978:

Direct materials used	\$15,450
Direct labor hours worked	360
Direct labor rate per hour	\$15.00
Machine hours used	300
Applied factory overhead rate per machine hour	\$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: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Decision Making, IMA: Reporting

Solution: $\$15,450 + (360 \times \$15) + (300 \times \$22) = \$27,450$

[Direct materials + (Direct labor hours worked x Direct labor hour rate) + (Machine hours used x Factory overhead rate) = Total manufacturing cost of job]

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. \$488,000.
 - d. \$470,000.

Ans: D, LO: 3, Bloom: AP, Difficulty: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: FSA

Solution: $\$180,000 + 120\% = \$150,000$; $\$140,000 + \$150,000 + \$180,000 = \$470,000$

(Manufacturing overhead + Overhead rate = Direct labor cost; Direct materials + Direct labor + Manufacturing overhead applied = Total manufacturing cost of job)

87. Norman Company manufactures customized metal buildings. 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: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Decision Making, IMA: Reporting

Solution: $\$22,800 + (600 \times \$16) + (400 \times \$30) = \$44,400$

[Direct materials + (Direct labor hours worked x Direct labor hour rate) + (Machine hours used x Factory overhead rate) = Total manufacturing cost of job]

88. Minton Company provided the following information from its accounting records for 2022:

Estimated production	60,000 labor hours
Actual production	56,000 labor hours
Estimated overhead	\$1,800,000
Actual overhead	\$1,740,000

What is the predetermined overhead application rate if Minton Company bases it on direct labor hours (rounded to the nearest cent)?

- 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: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: FSA
 Solution: $\$1,800,000 \div 60,000 = \30.00 per direct labor hour
 (Estimated overhead $\div$ Estimated direct labor hours = Predetermined overhead rate)

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: Moderate, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, 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: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, 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 estimated annual activity.
 - c. actual monthly costs and actual annual activity.
 - d. estimated monthly costs and actual monthly activity.

Ans: B, LO: 3, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, 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: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: Business Economics

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93. In calculating a predetermined overhead rate, a trend in automated manufacturing operations is to choose an activity base related to
- direct labor hours.
 - indirect labor dollars.
 - machine hours.
 - raw materials dollars.

Ans: C, LO: 3, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: Business Economics

94. Annual overhead costs are estimated to be \$750,000 and direct labor costs are estimated to be \$1,000,000. If the activity base is direct labor costs,
- \$1.33 is the predetermined overhead rate.
 - for every dollar of manufacturing overhead, 75 cents of direct labor cost will be assigned.
 - for every dollar of direct labor cost, 75 cents of manufacturing overhead will be assigned.
 - a predetermined overhead rate cannot be determined.

Ans: C, LO: 3, Bloom: AP, Difficulty: Moderate, Min: 2, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: Business Economics

Solution: $\$750,000 \div \$1,000,000 = \$0.75$

(Estimated overhead $\div$ Estimated direct labor cost = Predetermined overhead rate)

95. Overhead application is recorded with a
- credit to Work in Process Inventory.
 - credit to Manufacturing Overhead.
 - debit to Manufacturing Overhead.
 - credit to job cost sheets.

Ans: B, LO: 3, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, 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?
- Goods available for sale
 - Raw materials purchased
 - Work in Process inventory
 - Direct materials used

Ans: D, LO: 3, Bloom: K, Difficulty: Moderate, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: Business Economics

97. Simmons Inc. applies overhead to production at a predetermined rate of 90% of 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 if the balance in Work in Process Inventory is \$30,000?
- \$8,100
 - \$9,000
 - \$12,900
 - \$14,610

Ans: C, LO: 3, Bloom: AP, Difficulty: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Decision Making, IMA: Reporting

Solution: $\$8,100 \div 90\% = \$9,000$; $X + \$9,000 + \$8,100 = \$30,000$; $X = \$12,900$

(Manufacturing overhead $\div$ Overhead rate = Direct labor cost; Direct materials + Direct labor + Manufacturing overhead applied = Total manufacturing cost of job)

98. Spencer Inc. applies overhead to production at a predetermined rate of 80% of 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 if the balance in Work in Process Inventory is \$20,000?
- \$7,000
 - \$6,400
 - \$5,600
 - \$8,480

Ans: C, LO: 3, Bloom: AP, Difficulty: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Decision Making, IMA: Reporting

Solution: $\$6,400 \div 80\% = \$8,000$; $X + \$8,000 + \$6,400 = \$20,000$; $X = \$5,600$

(Manufacturing overhead $\div$ Overhead rate = Direct labor cost; Direct materials + Direct labor + Manufacturing overhead applied = Total manufacturing cost of job)

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
- \$322,000.
 - \$320,000.
 - \$420,000.
 - \$460,000.

Ans: A, LO: 3, Bloom: AP, Difficulty: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: Business Economics

Solution: $(\$600,000 - \$140,000) \times 70\% = \$322,000$

[(Factory labor costs – Indirect labor) $\times$ Predetermined overhead rate = Amount debited to Work in Process inventory]

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 cost for Job No. 305 is
- \$380,000.
 - \$480,000.
 - \$560,000.
 - \$580,000.

Ans: B, LO: 3, Bloom: AP, Difficulty: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Decision Making, IMA: Reporting

Solution: $\$200,000 \div 200\% = \$100,000$; $\$180,000 + \$100,000 + \$200,000 = \$480,000$

(Manufacturing overhead $\div$ Overhead rate = Direct labor cost; Direct materials + Direct labor + Manufacturing overhead applied = Total manufacturing cost of job)

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 charged to Work in Process Inventory is
- \$364,000.
 - \$360,000.
 - \$504,000.
 - \$520,000

Ans: A, LO: 3, Bloom: AP, Difficulty: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: Business Economics

Solution: $(\$720,000 - \$200,000) \times 70\% = \$364,000$

[(Factory labor costs – Indirect labor) $\times$ Predetermined overhead rate = Amount debited to Work in Process inventory]

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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. Machine hours is the overhead allocation base. What is the amount of overhead applied during the year if actual machine hours for the year was 315,000 hours?
- \$2,400,000
 - \$2,285,714
 - \$1,680,000
 - \$2,520,000

Ans: D, LO: 4, Bloom: AP, Difficulty: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: FSA

Solution: $\$2,400,000 \div 300,000 = \8.00 per machine hour; $315,000 \times \$8 = \$2,520,000$

(Estimated overhead $\div$ Estimated machine hours = Predetermined overhead rate; Actual machine hours $\times$ Predetermined overhead rate = Overhead applied)

103. Cost of goods sold is obtained from
- analysis of all the control accounts in the cost system.
 - the Finished Goods Inventory records.
 - the Work in Process Inventory records.
 - the Raw Materials Inventory control account.

Ans: B, LO: 4, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting

104. When determining costs of jobs, how does a company account for the cost of indirect materials?
- The cost is added to Work in Process inventory as used.
 - The cost remains part of Raw Materials Inventory.
 - The cost is transferred out of Raw Materials Inventory and into manufacturing overhead when used.
 - The cost is transferred out of Raw Materials Inventory and into Work in Process inventory as used.

Ans: C, LO: 4, Bloom: C, Difficulty: Moderate, Min: 1, AACSB: None, AICPA BB: Governance 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
- Cost of Goods Manufactured.
 - Finished Goods Inventory.
 - Work in Process Inventory.
 - Raw Materials Inventory.

Ans: C, LO: 4, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: FSA

106. During 2022, Tanner Manufacturing estimated that Job No. 26 would incur \$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 Inventory?
- \$1,000,000
 - \$1,060,000
 - \$1,070,000
 - \$1,100,000

Ans: D, LO: 4, Bloom: AP, Difficulty: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: FSA

Solution: $\$300,000 \div \$200,000 = 150\%$ of direct labor cost; $\$550,000 + \$220,000 + (\$220,000 \times 150\%) = \$1,100,000$

[Estimated overhead $\div$ Estimated direct labor cost = Predetermined overhead rate; Direct materials + Direct labor + (Direct labor $\times$ Predetermined overhead rate) = Amount transferred to finished goods]

107. Debits to Work in Process Inventory are accompanied by credits to all but which one of the following accounts?
- Raw Materials Inventory
 - Factory Labor
 - Manufacturing Overhead
 - Cost of Goods Sold

Ans: D, LO: 4, Bloom: C, Difficulty: Moderate, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, 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?
- Cost of goods sold is recognized.
 - Raw materials are purchased.
 - Factory labor is incurred.
 - Manufacturing overhead is incurred.

Ans: A, LO: 4, Bloom: C, Difficulty: Moderate, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, 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?
- Manufacturing overhead is applied.
 - Raw materials are used.
 - Manufacturing overhead is incurred.
 - Completed goods are recognized.

Ans: C, LO: 4, Bloom: C, Difficulty: Moderate, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: Business Economics

110. In determining total manufacturing costs on the cost of goods manufactured schedule,
- beginning Work in Process Inventory should have a zero balance.
 - actual manufacturing overhead costs appear as a deduction.
 - manufacturing overhead applied is added to direct materials and direct labor.
 - ending Work in Process inventory is deducted from beginning Work in Process Inventory.

Ans: C, LO: 5, Bloom: C, Difficulty: Moderate, Min: 1, AACSB: None, AICPA BB: Governance 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	720,000

Gulick Company's direct labor cost for the year is

- \$72,000.
- \$360,000.
- \$216,000.
- \$288,000.

Ans: B, LO: 5 Bloom: AP, Difficulty: Hard, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Decision Making, IMA: Reporting

Solution: $\$144,000 + X + \$216,000 = \$720,000$; $X = \$360,000$

(Direct materials used + Direct labor + Manufacturing overhead applied = Total manufacturing costs)

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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: 45 Bloom: AP, Difficulty: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Decision Making, IMA: Reporting

Solution: $\$240,000 + \$720,000 - X = \$264,000$; $X = \$696,000$

(Beginning Work in Process inventory + Total manufacturing costs – Ending Work in Process inventory = Cost of goods manufactured)

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 Inventory	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: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Decision Making, IMA: Reporting

Solution: $\$900,000 + X - \$1,500,000 = \$1,200,000$; $X = \$1,800,000$

(Beginning Work in Process inventory + Total manufacturing costs – Ending Work in Process inventory = Cost of goods manufactured)

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: Moderate, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, 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 Inventory during the period.
- d. debits to Cost of Goods Sold during the period.

Ans: C, LO: 45 Bloom: C, Difficulty: Moderate, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting

116. Gannon Company had the following information at December 31:

Finished goods inventory, January 1	\$ 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: 5 Bloom: AP, Difficulty: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Decision Making, IMA: Reporting

Solution: $\$50,000 + \$2,200,000 - \$150,000 = \$2,100,000$; $\$2,750,000 - \$2,100,000 = \$650,000$

(Beginning finished goods inventory + Cost of goods manufactured – Ending finished goods inventory = Cost of goods sold; Sales – Cost of goods sold = Gross profit)

117. Haight Company incurred direct materials costs of \$2,500,000 during the year. Manufacturing 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: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Decision Making, IMA: Reporting

Solution: $\$450,000 \div 60\% = \$750,000$; $\$2,500,000 + \$750,000 + \$450,000 = \$3,700,000$

(Manufacturing overhead $\div$ Overhead rate = Direct labor cost; Direct materials + Direct labor + Manufacturing overhead applied = Total manufacturing costs)

118. Greer Company developed the following data for the current year:

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

What is Greer Company's direct labor cost for the year?

- a. \$508,000
- b. \$600,000
- c. \$464,000
- d. \$472,000

Ans: C, LO: 4, Bloom: AP, Difficulty: Hard, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: Business Economics

Solution: $\$208,000 + X + \$184,000 = \$856,000$; $X = \$464,000$

(Direct materials + Direct labor + Manufacturing overhead applied = Total manufacturing cost of job)

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119. Greer Company developed the following data for the current year:

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

What is Greer Company's ending Work in Process Inventory for the year?

- a. \$92,000
- b. \$484,000
- c. \$84,000
- d. \$372,000

Ans: A, LO: 4, Bloom: AP, Difficulty: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Decision Making, IMA: Reporting

Solution: $\$136,000 + \$856,000 - X = \$900,000$; $X = \$92,000$

(Beginning Work in Process inventory + Total manufacturing costs – Ending Work in Process inventory = Cost of goods manufactured)

120. Chomelar 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 inventory	90,000

What 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: 5 Bloom: AP, Difficulty: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: Business Economics

Solution: $\$120,000 + X - \$90,000 = \$1,920,000$; $X = \$1,890,000$

(Beginning Work in Process inventory + Total manufacturing costs – Ending Work in Process inventory = Cost of goods manufactured)

121. Barger Company had the following information at December 31:

Finished goods inventory, January 1	\$ 90,000
Finished goods inventory, December 31	126,000

If the cost of goods manufactured during the year totaled \$1,895,000 and annual sales were \$2,994,000, what is the company's gross profit for the year?

- a. \$1,099,000
- b. \$1,063,000
- c. \$1,859,000
- d. \$1,135,000

Ans: D, LO: 5 Bloom: AP, Difficulty: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Decision Making, IMA: Reporting

Solution: $\$90,000 + \$1,895,000 - \$126,000 = \$1,859,000$; $\$2,994,000 - \$1,859,000 = \$1,135,000$

(Beginning finished goods inventory + Cost of goods manufactured – Ending finished goods inventory = Cost of goods sold; Sales – Cost of goods sold = Gross profit)

122. Emley Company incurred direct materials cost 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%. What are Emley Company's total manufacturing costs for the year?
- \$1,940,000
 - \$1,750,000
 - \$1,450,000
 - \$2,450,000

Ans: D, LO: 5 Bloom: AP, Difficulty: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Decision Making, IMA: Reporting

Solution: $\$700,000 \div 70\% = \$1,000,000$; $\$750,000 + \$1,000,000 + \$700,000 = \$2,450,000$

(Manufacturing overhead $\div$ Overhead rate = Direct labor cost; Direct materials + Direct labor + Manufacturing overhead applied = Total manufacturing costs)

123. During 2022, Durham Manufacturing expected Job No. 51 to incur \$300,000 of overhead, \$500,000 of direct materials, and \$200,000 in direct labor. Durham applied overhead based on direct labor cost. Actual production required overhead cost of \$295,000, \$570,000 in direct materials used, and \$220,000 in direct labor. All of the goods were completed. What amount was transferred to Finished Goods Inventory?
- \$1,090,000
 - \$1,120,000
 - \$1,000,000
 - \$1,085,000

Ans: B, LO: 5 Bloom: AP, Difficulty: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: FSA

Solution: $\$300,000 \div \$200,000 = 150\%$; $\$570,000 + \$220,000 + (\$220,000 \times 150\%) = \$1,120,000$

[Estimated overhead $\div$ Estimated direct labor cost = Predetermined overhead rate; Direct material + Direct labor + (Direct labor $\times$ Predetermined overhead rate) = Amount transferred to finished goods]

124. During 2022, Cotte Manufacturing expected Job No. 59 to incur \$300,000 of overhead cost, \$500,000 of direct materials cost, and \$200,000 in direct labor cost. Cotte applied overhead based on direct labor cost. Actual production required overhead cost of \$295,000, \$570,000 in direct materials used, and \$220,000 in direct labor. All of the goods were completed. What is the amount of over- or underapplied overhead?
- \$5,000 underapplied
 - \$5,000 overapplied
 - \$35,000 underapplied
 - \$35,000 overapplied

Ans: D, LO: 5, Bloom: AP, Difficulty: Hard, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: Business Economics

Solution: $\$300,000 \div \$200,000 = 150\%$; $\$220,000 \times 150\% = \$330,000$; $\$330,000 - \$295,000 = \$35,000$ overapplied

(Estimated overhead $\div$ Estimated direct labor cost = Predetermined overhead rate; Direct labor $\times$ Predetermined overhead rate = Overhead applied; Overhead applied – Actual overhead = Under/overapplied overhead)

125. Kimble Company applies overhead on the basis of machine hours. Given the following data, what is the 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

- \$1,560,000 applied and \$15,000 overapplied
- \$1,600,000 applied and \$15,000 overapplied
- \$1,560,000 applied and \$15,000 underapplied
- \$1,575,000 applied and neither under-nor overapplied

Ans: C, LO: 5, Bloom: AP, Difficulty: Hard, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: Business Economics

Solution: $\$1,600,000 \div 400,000 = \$4/\text{machine hour}$; $390,000 \times \$4 = \$1,560,000$; $\$1,560,000 - \$1,575,000 = \$15,000$ underapplied
(Estimated overhead $\div$ Estimated machine hours = Predetermined overhead rate; Actual machine hours $\times$ Predetermined overhead rate = Overhead applied; Overhead applied – Actual overhead = Under/overapplied overhead)

126. Barnes Company applies overhead on the basis of machine hours. Given the following data, what is the 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

- \$2,950,000 applied and \$20,000 overapplied
- \$3,000,000 applied and \$20,000 overapplied
- \$2,950,000 applied and \$20,000 underapplied
- \$2,970,000 applied and neither under- nor overapplied

Ans: C, LO: 5, Bloom: AP, Difficulty: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: Business Economics

Solution: $\$3,000,000 \div 300,000 = \$10/\text{machine hour}$; $295,000 \times \$10 = \$2,950,000$; $\$2,950,000 - \$2,970,000 = \$20,000$ underapplied
(Estimated overhead $\div$ Estimated machine hours = Predetermined overhead rate; Actual machine hours $\times$ Predetermined overhead rate = Overhead applied; Overhead applied – Actual overhead = Under/overapplied overhead)

127. A company assigned overhead to Work in Process Inventory. At year end, what does it mean if overhead is overapplied?
- The overhead assigned to Work in Process Inventory is greater than the estimated overhead costs.
 - The overhead assigned to Work in Process Inventory is less than the estimated overhead costs.
 - The overhead assigned to Work in Process Inventory is less than the actual overhead.
 - The overhead assigned to Work in Process Inventory is greater than the overhead incurred.

Ans: D, LO: 5, Bloom: C, Difficulty: Moderate, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: Business Economics

128. If the Manufacturing Overhead account has a debit balance at the end of a period, it means that
- actual overhead costs were less than overhead costs applied to jobs.
 - actual overhead costs were greater than overhead costs applied to jobs.
 - actual overhead costs were equal to overhead costs applied to jobs.
 - no jobs have been completed.

Ans: B, LO: 5, Bloom: C, Difficulty: Moderate, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics

129. If the manufacturing overhead cost applied to jobs is greater than the actual manufacturing costs incurred during a period, overhead is said to be
- underapplied.

- b. overapplied.
- c. in error.
- d. prepaid.

Ans: B, LO: 5, Bloom: C, Difficulty: Moderate, Min: 1, AACSB: None, AICPA BB: Governance 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: Governance 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: Moderate, Min: 1, AACSB: None, AICPA BB: Governance 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 a 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: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: FSA

Solution: $(\$30,000 + \$24,000 + \$28,000) = \$82,000$ debit balance (actual) - $\$86,000$ credit balance (applied) = $\$4,000$ overapplied manufacturing overhead.

Account debits – Account credits = overapplied debit balance

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: Moderate, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting

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134. If actual manufacturing is greater than applied manufacturing overhead, then manufacturing overhead is
- underapplied.
 - overapplied.
 - a loss on the income statement under "Other Expenses and Losses."
 - considered a miscellaneous expense.

Ans: A, LO: 5, Bloom: C, Difficulty: Moderate, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting

135. If actual overhead is less than applied manufacturing overhead, then manufacturing overhead is
- underapplied.
 - overapplied.
 - a loss on the income statement under "Other Expenses and Losses."
 - considered a miscellaneous expense.

Ans: B, LO: 5, Bloom: C, Difficulty: Moderate, Min: 1, AACSB: None, AICPA BB: Governance 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 generally include a
- debit to Manufacturing Overhead.
 - credit to Cost of Goods Sold.
 - debit to Work in Process Inventory.
 - debit to Cost of Goods Sold.

Ans: D, LO: 5, Bloom: C, Difficulty: Moderate, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, 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 include a
- debit to Manufacturing Overhead.
 - credit to Finished Goods Inventory
 - debit to Cost of Goods Sold.
 - credit to Work in Process Inventory.

Ans: A, LO: 5, Bloom: C, Difficulty: Moderate, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: FSA

138. The existence of under- or overapplied overhead at the end of the year usually
- requires an adjustment to Cost of Goods Sold.
 - indicates that an error has been made.
 - requires a retroactive adjustment to the cost of all jobs completed.
 - is written off as a bad estimate expense.

Ans: A, LO: 5, Bloom: C, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, 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 accounts **except**
- Cost of Goods Sold.
 - Work in Process Inventory.
 - Raw Materials Inventory.
 - Finished Goods Inventory.

Ans: C, LO: 5, Bloom: C, Difficulty: Moderate, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting

140. If manufacturing overhead has been overapplied at the end of the year, it means that
- actual overhead costs were greater than the overhead assigned to jobs.
 - actual overhead costs were less than the overhead assigned to jobs.
 - overhead has not been applied to jobs still in process.
 - cost of goods will have to be increased by the amount of the overapplied overhead.

Ans: B, LO: 5, Bloom: C, Difficulty: Moderate, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting

141. A process cost system would be used for all of the following **except** the
- manufacture of energy bars.
 - refining of petroleum.
 - production of custom skateboards.
 - production of microphones.

Ans: C, LO: 1, Bloom: C, Difficulty: Moderate, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, AICPA FN: Reporting, AICPA PC: None, IMA: Business Applications

142. In a job order cost system, the purchase of raw materials is recorded with a debit to
- Work in Process Inventory.
 - Work in Process Inventory and Manufacturing Overhead.
 - Raw Materials Inventory.
 - Finished Goods Inventory.

Ans: C, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: FSA

143. In a manufacturing company, the cost of factory labor includes all of the following costs **except**
- employer payroll taxes.
 - employee benefits incurred by the employer.
 - net earnings of factory workers.
 - gross earnings of factory workers.

Ans: C, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: Business Economics

144. When direct labor costs are assigned to jobs, _____ is debited and _____ is credited. ,
- Work in Process Inventory; Salaries and Wages Payable
 - Work in Process Inventory; Factory Labor
 - Manufacturing Overhead; Factory Labor
 - Factory Labor; Manufacturing Overhead

Ans: B, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting

145. When the company assigns factory labor costs to jobs, direct labor cost is debited to
- Direct Labor.
 - Factory Labor.
 - Manufacturing Overhead.
 - Work in Process Inventory.

Ans: D, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: FSA

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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 cost and \$320,000 of manufacturing overhead. The total manufacturing cost for Job No. 501 is
- \$560,000.
 - \$880,000.
 - \$720,000.
 - \$800,000.

Ans: C, LO: 3, Bloom: AP, Difficulty: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Decision Making, IMA: Reporting

Solution: $\$320,000 \div 200\% = \$160,000$; $\$240,000 + \$160,000 + \$320,000 = \$720,000$

(Manufacturing overhead $\div$ Overhead rate = Direct labor cost; Direct materials + Direct labor + Manufacturing overhead applied = Total manufacturing cost of job)

147. Companies assign manufacturing overhead to Work in Process Inventory on an estimated basis through the use of a(n)
- actual overhead rate.
 - estimated overhead rate.
 - assigned overhead rate.
 - predetermined overhead rate.

Ans: D, LO: 3, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: Business Economics

148. Overapplied manufacturing overhead exists when overhead assigned to Work in Process Inventory is
- more than overhead incurred and there is a debit balance in Manufacturing Overhead at the end of a period.
 - less than overhead incurred and there is a debit balance in Manufacturing Overhead at the end of a period.
 - more than overhead incurred and there is a credit balance in Manufacturing Overhead at the end of a period.
 - 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: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: Business Economics

149. Usually, under- or overapplied overhead is eliminated with an adjustment to
- Work in Process Inventory.
 - Finished Goods Inventory.
 - Finished Goods Inventory and Cost of Goods Sold.
 - Cost of Goods Sold.

Ans: D, LO: 5, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: FSA

150. Which of the following statements about under- or overapplied manufacturing overhead is correct?
- After the entry to transfer over- or underapplied overhead to Cost of Goods Sold is posted, Manufacturing Overhead will have a zero balance.
 - When Manufacturing Overhead has a credit balance, overhead is said to be under-applied.
 - At the end of the year, under- or overapplied overhead is eliminated by a closing entry.
 - When year-end financial statements are prepared, overapplied overhead is reported in current liabilities.

Ans: A, LO: 5, Bloom: K, Difficulty: Moderate, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: None, IMA: Reporting

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 incurred	6,000
Manufacturing overhead incurred on account	4,000

Instructions

Prepare separate journal entries for each manufacturing cost.

Ans: N/A, LO: 1, Bloom: AP, Difficulty: Moderate, Min: 4, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: FSA

Solution 151 (4 min.)

Raw Materials Inventory.....	12,000	
Accounts Payable.....		12,000
Factory Labor.....	6,000	
Payroll Liabilities.....		6,000
Manufacturing Overhead.....	4,000	
Accounts Payable.....		4,000

BE 152

In January, the production supervisor for Harlan, Inc. 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: Moderate, Min: 2, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, 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 2022:

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: Moderate, Min: 2, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: Business Economics

Solution 153 (2 min.)

$$\$5,200 + \$83,000 - \$4,500 = \$83,700$$

BE 154

Builder Bug Company allocates overhead at the rate of \$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: Moderate, Min: 4, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: Business Economics

Solution 154 (4 min.)

Direct material (4 × \$30)	\$120
Direct labor (20 hours × \$15)	300
Manufacturing overhead (20 hours × \$9)	<u>180</u>
Total job cost	<u>\$600</u>

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: Moderate, Min: 5, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: Business Economics

Solution 155 (5 min.)

Predetermined Overhead Rate = \$600,000 ÷ 40,000 = \$15 per direct labor hour

Manufacturing Overhead Applied = \$15 × 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 is as 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: Moderate, Min: 2, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: Business Economics

Solution 156 (2 min.)

$$\$145,000 \div 5,000 = \$29 \text{ per direct labor hour}$$

BE 157

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

Inventories	January 1	January 31
Raw Materials	\$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 Inventory during January.

Instructions

Compute the cost of goods sold.

Ans: N/A, LO: 4, Bloom: AP, Difficulty: Moderate, Min: 2, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Decision Making, 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 recording an adjustment for 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 eliminates the overapplied overhead.

Ans: N/A, LO: 5, Bloom: AP, Difficulty: Moderate, Min: 2, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Decision Making, IMA: Reporting

Solution 158 (2 min.)

$$\$730,000 - \$8,000 = \$722,000$$

BE 159

During 2022, 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: Moderate, Min: 4, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: Business Economics

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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: Moderate, Min: 2, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: FSA

Solution 160 (2 min.)

Cost of Goods Sold.....	2,800	
Manufacturing Overhead.....		2,800

EXERCISES

Ex. 161

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

	<u>January 1</u>	<u>January 31</u>
Raw Materials	\$12,000	\$13,000
Work in Process	21,000	23,000
Finished Goods	14,000	12,000

Beatly transferred \$270,000 of completed goods out of Work in Process Inventory during January.

Instructions

Compute the cost of goods sold for January.

Ans: N/A, LO: 1, Bloom: AP, Difficulty: Moderate, Min: 3, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Decision Making, 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:

<u>Code</u>		<u>Code</u>	
A	Cash	F	Accounts Payable
B	Accounts Receivable	G	Factory Labor
C	Raw Materials Inventory	H	Manufacturing Overhead
D	Work in Process Inventory	I	Cost of Goods Sold
E	Finished Goods Inventory	J	Sales Revenue

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

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) Debited	Account(s) 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. Manufacturing overhead was applied to production based on a predetermined overhead rate of \$8/ labor hour.		
8. Goods that were completed were transferred to finished goods inventory.		
9. Goods costing \$80,000 were sold for \$105,000 on account.		
10. Paid for raw materials purchased previously on account.		

2 - 36 Test Bank for Managerial Accounting, Ninth Edition**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. Manufacturing overhead was applied to production based on a predetermined overhead rate of \$8 per labor hour	D	H
8. Goods that were completed were transferred to finished goods inventory.	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 on account.	F	A

Ex. 163

Finn Manufacturing Company uses a job order cost 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	(7,000 hrs. × \$12 per hr.) =	\$ 84,000
Indirect labor	(3,000 hrs. × \$8 per hr.) =	<u>24,000</u>
		<u>\$108,000</u>

Ex. 163 (Cont.)

- 25 Applied manufacturing overhead to production based on a predetermined overhead rate of \$7 per direct labor hour worked.
- 28 Goods costing \$18,000 were completed in the factory and were transferred to finished goods inventory.
- 30 Goods costing \$15,000 were sold for \$20,000 on account.

Ans: N/A, LO: 1, 2, 3, Bloom: AP, Difficulty: Moderate, Min: 16, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: FSA

Solution 163 (16–23 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	
	Payroll Liabilities		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 inventory and its cost)		

Ex. 164

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

RAW MATERIALS INVENTORY		WORK IN PROCESS INVENTORY	
(a) 40,000	(d) 25,000	(d) 25,000	(g) 140,000
		(e) 80,000	
		(f) 100,000	
FINISHED GOODS INVENTORY		COST OF GOODS SOLD	
(g) 140,000	(h) 120,000	(h) 120,000	
FACTORY LABOR		MANUFACTURING OVERHEAD	
(b) 110,000	(e) 110,000	(c) 75,000	(f) 100,000
		(e) 30,000	

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: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, 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 inventory costing \$120,000 were sold.

Ex. 165

Sardin Company begins the month of March with \$17,000 of Work in Process Inventory from Job 324. Information from job cost sheets shows the following additional costs assigned during March, April, and May of 2022:

Job No.	Manufacturing Costs Assigned		
	March	April	May
324	\$26,000		
325	20,000	\$28,000	\$15,000
326	41,000	11,000	
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 Inventory and Finished Goods Inventory accounts at the end of May.

Ans: N/A, LO: 1, 2, Bloom: AP, Difficulty: Moderate, Min: 5, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Decision Making, IMA: Business Economics

Solution 165 (5–6 min.)Work in Process Inventory

Job 328 \$34,000 + \$51,000 = \$85,000

Finished Goods Inventory

Job 325 \$20,000 + \$28,000 + \$15,000 = \$63,000

Job 327 \$16,000 + \$39,000 = 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

- Prepare the entry to record the factory labor costs for the month of January.
- Prepare the entry to assign factory labor to production.
- 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: Moderate, Min: 8, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: FSA

Solution 166 (8–12 min.)

(a)	Factory Labor.....	480,000	
	Payroll Liabilities.....		480,000
(b)	Work in Process Inventory.....	360,000	
	Manufacturing Overhead.....	120,000	
	Factory Labor.....		480,000
	(\$480,000 × 75% = \$360,000)		
(c)	Work in Process Inventory.....	450,000	
	Manufacturing Overhead.....		450,000
	(\$360,000 × 125% = \$450,000)		

Ex. 167

Foster Manufacturing uses a job order cost 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:

For	Materials Requisition Slips	Labor Time Tickets
Job No. 221	\$1,200	\$2,100
222	1,700	2,200
223	2,400	2,900
224	2,600	2,800
General use	600	400
Totals	<u>\$8,500</u>	<u>\$10,400</u>

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

- 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.
- Calculate the balance of the Work in Process Inventory account at April 30.

Ans: N/A, LO: 1, 2, 3, 4, Bloom: AP, Difficulty: Moderate, Min: 10, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: FSA

Solution 167 (10–15 min.)

(a) April 30	Work in Process Inventory.....	7,900	
	Manufacturing Overhead.....	600	
	Raw Materials Inventory.....		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 × 70% = \$7,000)		
	Finished Goods Inventory.....	8,370	
	Work in Process Inventory.....		8,370
	(\$3,600 + \$1,200 + \$2,100 + \$1,470 = \$8,370)		

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

Job No. 222	\$9,440	(\$4,000 + \$1,700 + \$2,200 + \$1,540)
Job No. 223	7,330	(\$2,400 + \$2,900 + \$2,030)
Job No. 224	<u>7,360</u>	(\$2,600 + \$2,800 + \$1,960)
	<u>\$24,130</u>	

Ex. 168

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

	<u>Case A</u>	<u>Case B</u>
Direct Materials Used	(a)	\$103,000
Direct Labor	\$ 70,000	150,000
Manufacturing Overhead Applied	63,000	(d)
Total Manufacturing Costs	240,000	(e)
Work in Process Inventory, 1/1/22 (b)	45,000	
Total Cost of Work in Process	300,000	(f)
Work in Process Inventory, 12/31/22 (c)	40,000	
Cost of Goods Manufactured	205,000	(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: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: Business Economics

Solution 168 (9–12 min.)Case A

$$(a) + \$70,000 + \$63,000 = \$240,000$$

$$(a) = \$107,000$$

$$\$240,000 + (b) = \$300,000$$

$$(b) = \$60,000$$

$$\$300,000 - (c) = \$205,000$$

$$(c) = \$95,000$$

Case B [Note that the overhead rate from Case A is 90% ($\$63,000 \div \$70,000$)]

$$\$150,000 \times 90\% = (d)$$

$$(d) = \$135,000$$

$$\$103,000 + \$150,000 + \$135,000 = (e)$$

$$(e) = \$388,000$$

$$\$388,000 + \$45,000 = (f)$$

$$(f) = \$433,000$$

$$\$433,000 - \$40,000 = (g)$$

$$(g) = \$393,000$$

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 Inventory.
8. Finished Goods Inventory with a cost of \$100,000 was sold on account for \$130,000.

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Ex. 169 (Cont.)

Instructions

Journalize the above transactions for Fort Corporation.

Ans: N/A, LO: 1, 2, 3, 4, Bloom: AP, Difficulty: Moderate, Min: 12, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: FSA

Solution 169 (12–17 min.)

1. Raw Materials Inventory.....	85,000	
Accounts Payable.....		85,000
2. Work in Process Inventory.....	24,000	
Manufacturing Overhead.....	6,000	
Raw Materials Inventory.....		30,000
3. Factory Labor.....	175,000	
Payroll Liabilities.....		175,000
4. Work in Process Inventory.....	145,000	
Manufacturing Overhead.....	30,000	
Factory Labor.....		175,000
5. Manufacturing Overhead.....	198,000	
Accounts Payable.....		198,000
6. Work in Process Inventory.....	217,500	
Manufacturing Overhead.....		217,500
(\$145,000 × 150% = \$217,500)		
7. Finished Goods Inventory.....	271,500	
Work in Process Inventory.....		271,500
(\$24,000 + \$145,000 + \$217,500 = \$386,500)		
(\$386,500 – \$115,000 = \$271,500)		
8. Accounts Receivable.....	130,000	
Sales Revenue		130,000
Cost of Goods Sold.....	100,000	
Finished Goods Inventory.....		100,000

Ex. 170

Lando Company reported the following amounts for 2022:

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: Moderate, Min: 4, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Decision Making, 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.

Job Cost Sheet			
JOB NO. <u>172</u>		Quantity	<u>1,500</u>
FOR <u>James Company</u>		Date Completed	<u>5/31</u>
Date	Direct Materials	Direct Labor	Manufacturing Overhead
5/10	1,330		
12	1,120		
15		550	825
22		480	720
24	1,000		
27	1,870		
31		670	1,005
Cost of completed job:			
Direct materials			_____
Direct labor			_____
Manufacturing Overhead			_____
Total cost			_____
Unit cost			_____

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.

Ans: N/A, LO: 1, 2, 3, 4, Bloom: AP, Difficulty: Moderate, Min: 8, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: Business Economics

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 material.....	\$5,320
Direct labor.....	1,700
Manufacturing overhead.....	<u>2,550</u>
	<u>\$9,570</u>

The unit cost is \$6.38 ($\$9,570 \div 1,500$)

- | | | | |
|------------|--------------------------------|-------|-------|
| (b) May 31 | Finished Goods Inventory | 9,570 | |
| | Work in Process Inventory..... | | 9,570 |

Ex. 172

At May 31, 2022, the accounts of Kuhlmann Manufacturing Company show the following.

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

Instructions

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

Ans: N/A, LO: 1, 4 Bloom: AP, Difficulty: Moderate, Min: 10, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Decision Making, IMA: Reporting

Solution 172 (10 min.)

(a)

KUHLMANN MANUFACTURING COMPANY
Cost of Goods Manufactured Schedule
For the Month Ended May 31, 2022

Work in Process inventory, May 1.....		\$ 14,700
Direct materials used.....	\$77,400	
Direct labor.....	50,000	
Manufacturing overhead applied.....	<u>45,000</u>	
Total manufacturing costs.....		<u>172,400</u>
Total cost of Work in Process.....		187,100
Less: Work in Process inventory, May 31.....		<u>22,900</u>
Cost of goods manufactured.....		<u>\$164,200</u>

Solution 172 (Cont.)

(b) **KUHLMANN MANUFACTURING COMPANY**
 (Partial) Income Statement
 For the Month Ended May 31, 2022

Sales revenue.....		\$225,000
Cost of goods sold		
Finished goods inventory, May 1.....	\$ 12,600	
Cost of goods manufactured.....	<u>164,200</u>	
Cost of goods available for sale.....	176,800	
Less: Finished goods inventory, May 31.....	<u>8,500</u>	
Cost of goods sold.....		<u>168,300</u>
Gross profit.....		<u>\$56,700</u>

Ex. 173

Watson Manufacturing Company employs a job order cost 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	<u>24,000</u>
	<u>\$60,000</u>

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

Job 101	\$32,000
Job 102	28,000
Job 103	<u>20,000</u>
	<u>\$80,000</u>

3. Manufacturing overhead was applied to jobs 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. What is 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. By what amount was manufacturing overhead was under- or overapplied during the month?

Solution 173 (15–20 min.)

(a) 1.	Work in Process Inventory.....	60,000	
	Raw Materials Inventory.....		60,000
2.	Work in Process Inventory.....	80,000	
	Factory Labor		80,000
3.	Work in Process Inventory.....	60,000	
	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 × 75%).

2. Unit cost: Job 101, \$76; Job 103, \$295.

	<u>Job 101</u>	<u>Job 103</u>
Direct materials	\$20,000	\$24,000
Direct labor	32,000	20,000
Overhead applied	<u>24,000</u>	<u>15,000</u>
Total cost	76,000	59,000
Units	<u>÷ 1,000</u>	<u>÷ 200</u>
Unit cost	<u>\$76</u>	<u>\$295</u>

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

	<u>Job 102</u>
Direct materials	\$16,000
Direct labor	28,000
Overhead applied	<u>21,000</u>
Total cost	<u>\$65,000</u>

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

Actual manufacturing overhead	\$66,000
Manufacturing overhead applied	<u>60,000</u>
Underapplied overhead	<u>\$ 6,000</u>

Ex. 174

Graham Manufacturing is a small manufacturer that uses machine hours as its activity base for assigning overhead costs to jobs. The company estimated the following amounts for 2022 for the company and for Job 62:

	<u>Company</u>	<u>Job 62</u>
Direct materials	\$60,000	\$4,500
Direct labor	\$25,000	\$2,500
Manufacturing overhead costs	\$72,000	
Machine hours	90,000	1,350

During 2022, the actual machine hours totaled 95,000, and actual overhead costs were \$71,000.

Ex. 174 (Cont.)**Instructions**

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

Ans: N/A, LO: 1,2,5, Bloom: AP, Difficulty: Moderate, Min: 7, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: Business Economics

Solution 174 (7–9 min.)

- $\$72,000 \div 90,000 = \0.80 per machine hour
- $\$4,500 + \$2,500 + (\$0.80 \times 1,350) = \$8,080$
- Actual – Applied = Over/Underapplied
 $\$71,000 - (\$0.80 \times 95,000) = \$5,000$ overapplied
- $\$14,000 - \$8,080$ (from (b) above) = \$5,920

Ex. 175

The following inventory information is available for Ricci Manufacturing Corporation for the year ended December 31, 2022:

	<u>Beginning</u>	<u>Ending</u>
Inventories:		
Raw materials	\$17,000	\$19,000
Work in Process	9,000	14,000
Finished goods	<u>11,000</u>	<u>8,000</u>
Total	<u>\$37,000</u>	<u>\$41,000</u>

In addition, the following transactions occurred in 2022:

- Raw materials purchased on account, \$75,000.
- Incurred factory labor, \$80,000, all is direct labor.
- 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).
- Assigned \$80,000 of factory labor to jobs.
- Applied \$36,000 of overhead to jobs.

Instructions

- Journalize the above transactions.
- Reproduce the manufacturing cost and inventory accounts. Use T-accounts.
- From an analysis of the accounts, compute the following:
 - Raw materials used.
 - Completed jobs transferred to finished goods inventory.
 - Cost of goods sold.
 - Under- or overapplied overhead.

Ans: N/A, LO: 1, 2, 3, 4, 5, Bloom: AP, Difficulty: Moderate, Min: 16, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: FSA

Solution 175 (16–22 min.)

(a) 1. Raw Materials Inventory.....	75,000	
Accounts Payable.....		75,000
2. Factory Labor.....	80,000	
Payroll Liabilities.....		80,000
3. Manufacturing Overhead.....	33,000	
Accounts Payable.....		25,000
Accumulated Depreciation.....		8,000
4. Work in Process Inventory.....	80,000	
Factory Labor.....		80,000
5. Work in Process Inventory.....	36,000	
Manufacturing Overhead.....		36,000

(b)

Raw Materials Inventory			Work in Process Inventory		
Bal.	17,000		Bal.	9,000	
(1)	75,000	73,000(4)	80,000		
Bal.	19,000		(5)	36,000	184,000
			Bal.	14,000	

Finished Goods Inventory			Factory Labor		
Bal.	11,000		(2)	80,000	(4) 80,000
	184,000	187,000			
	8,000				

Manufacturing Overhead			Cost of Goods Sold		
(3)	33,000	(5) 36,000	187,000		
		3,000			

- (c) 1. Raw materials used = \$17,000 + \$75,000 – \$19,000 = \$73,000.
 2. Completed jobs transferred to finished goods inventory = W/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 × \$30)	\$120
Direct labor (14 hours × \$15)	210
Manufacturing overhead (14 hours × \$9)	<u>126</u>
Total job cost of Job A45	<u>\$456</u>

Ex. 177

Job cost sheets for Howard Manufacturing are as follows:

Job No 210 Quantity 1,500

<u>Date</u>	<u>Direct Materials</u>	<u>Direct Labor</u>	<u>Manufacturing Overhead</u>
July 1	9,000	8,000	12,000
8	8,500		
10		10,000	
15	5,500		
25		20,000	

Job No 211 Quantity 1,200

<u>Date</u>	<u>Direct Materials</u>	<u>Direct Labor</u>	<u>Manufacturing Overhead</u>
July 1	5,000	6,000	9,000
10	9,000		
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 = 20,000
\$49,000
2. Manufacturing overhead rate = 150% of direct labor cost (\$12,000 ÷ \$8,000 or \$9,000 ÷ \$6,000)
3. July overhead rate = 150% × 120% = 180%
 Overhead applied in July = \$30,000 × 180% = \$54,000
4. Direct materials \$ 23,000
 Direct labor 38,000
 Manufacturing overhead (\$12,000 + \$54,000) 66,000
 Total cost \$127,000
 Unit cost (\$127,000 ÷ 1,500) \$84.67
5. Direct materials \$21,000
 Direct labor 26,000
 Manufacturing overhead (\$9,000 + \$36,000) 45,000
 Total cost of Work in Process inventory \$92,000
- (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
 Manufacturing Overhead..... 90,000

Ex. 178

Garner Company begins operations on July 1, 2022. Information from job cost sheets shows the following:

Job No.	Manufacturing Costs Assigned		
	July	August	September
100	\$12,000	\$8,800	
101	10,800	9,700	\$12,000
102	5,000		
103		11,800	6,000
104		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: Moderate, Min: 10, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Decision Making, IMA: Reporting

Solution 178 (10–13 min.)

- (a) Work in Process Inventory

July	Job 100	\$12,000
	Job 101	<u>10,800</u>
Balance, July 31		<u>\$22,800</u>

- (b) Finished Goods Inventory

	Job 101	\$32,500
	Job 103	<u>17,800</u>
Balance, Sept. 30		<u>\$50,300</u>

- (c) Gross Profit

<u>Month</u>	<u>Job Number</u>	<u>Sales</u>	<u>COGS</u>	<u>Gross Profit</u>
August	102	\$8,000	\$5,000	\$3,000

Ex. 179

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

	<u>Dec. 31</u>	<u>Jan. 1</u>
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 Cost of Goods Sold?

Ans: N/A, LO: 2, 4, Bloom: AP, Difficulty: Moderate, Min: 10, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: FSA

Solution 179 (10–14 min.)

1. Direct Materials	\$ 350,000
Direct Labor	160,000
Manufacturing Overhead Applied (\$160,000 × 150%)	<u>240,000</u>
Total debits	<u>\$750,000</u>

2. WORK IN PROCESS INVENTORY			
Balance	50,000	Transferred to	
From (1)	<u>750,000</u>	Finished Goods	780,000
Balance	20,000		

3. FINISHED GOODS INVENTORY			
Balance	150,000	Cost of Goods Sold	810,000
From WIP (see 2)	<u>780,000</u>		
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.

	<u>Rondelli</u>	<u>Preston</u>	<u>Lopez</u>
Direct materials	\$900	\$600	\$300
Auditor labor costs	\$5,900	\$6,600	\$3,700
Auditor hours	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

- Determine the cost of each job.
- Indicate the balance of the Work in Process Inventory account at the end of November.
- Calculate the ending balance of the Operating Overhead account for November.

Ans: N/A, LO: 2, 3, 5, Bloom: AP, Difficulty: Moderate, Min: 8, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Decision Making, IMA: Reporting

Solution 180 (8 min.)

(a)	<u>Rondelli</u>	<u>Preston</u>	<u>Lopez</u>
Direct materials	\$ 900	\$ 600	\$ 300
Auditor labor costs	5,900	6,600	3,700
Applied overhead	<u>3,300</u>	<u>4,400</u>	<u>2,250</u>
Total cost	<u>\$10,100</u>	<u>\$11,600</u>	<u>\$6,250</u>

- (b) The Rondelli job is the only incomplete job, therefore, \$10,100

(c) Actual overhead	\$10,500 (DR)
Applied overhead	<u>9,950</u> (CR)
Balance	<u>\$ 550</u> (DR - underapplied)

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

- Compute the manufacturing overhead rate for the year.
- What is the amount of under - or overapplied overhead at December 31?
- 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: Moderate, Min: 6, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: Business Economics

Solution 181 (6 min.)

- \$3.40 per machine hour ($\$425,000 \div 125,000$).
- $(\$450,000) - (\$3.40 \times 130,000 \text{ Machine Hours})$
 $\$450,000 - \$442,000 = \$8,000$ underapplied
- | | | |
|-----------------------------|-------|-------|
| 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.

Estimated overhead	\$880,000
Actual overhead	\$910,000
Estimated decorator hours	40,000
Actual decorator hours	41,000

The company uses Operating Overhead in place of Manufacturing Overhead.

Instructions

- Compute the predetermined overhead rate.
- Prepare the entry to apply the overhead for the year.
- Determine whether the overhead was under - or overapplied and by what amount.

Ans: N/A, LO: 3, 5, Bloom: AP, Difficulty: Moderate, Min: 6, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: Business Economics

Solution 182 (6 min.)

- (a) Predetermined overhead rate = Estimated overhead ÷ Estimated decorator hours
= \$880,000 ÷ 40,000 decorator hours
= \$22 per decorator hour

(b) Applied Overhead

Work in Process Inventory (41,000 hrs. × \$22)	902,000
Operating Overhead	902,000

- (c)
- | | | |
|------------------|-----------------|--------------|
| Actual overhead | \$910,000 | |
| Applied overhead | <u>902,000</u> | |
| Balance | <u>\$ 8,000</u> | 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: Moderate, Min: 4, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: Business Economics

Solution 183 (4 min.)

- (a) Predetermined overhead rate: \$75,000 ÷ 5,000 = \$15 per direct labor hour
(b) Applied manufacturing overhead: 4,800 × \$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 2022, the following estimates were made for the year:

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

Ex. 184 (Cont.)

During January, the job cost sheet showed the following costs and production data:

	Department	
	A	B
Direct materials used	\$195,000	\$128,000
Direct labor cost	100,000	110,000
Manufacturing overhead incurred	130,000	135,000
Direct labor hours	8,000	8,400
Machine hours	16,000	34,000

Instructions

- Compute the predetermined overhead rate for each department.
- Compute the total manufacturing cost assigned to jobs in January in each department.
- 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: Moderate, Min: 15, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: Business Economics

Solution 184 (15–20 min.)

- Predetermined overhead rates:

Department A (using direct labor cost): $\$2,100,000 \div \$1,500,000 = 140\%$

Department B (using machine hours): $\$1,400,000 \div 400,000 = \3.50 per machine hour

- Total manufacturing costs by department:

Department A:

Direct materials	\$195,000
Direct labor cost	100,000
Manufacturing overhead applied ($\$100,000 \times 140\%$)	<u>140,000</u>
Total manufacturing costs	<u>\$435,000</u>

Department B:

Direct materials	\$128,000
Direct labor cost	110,000
Manufacturing overhead applied ($34,000 \text{ hrs.} \times \3.50)	<u>119,000</u>
Total manufacturing costs	<u>\$357,000</u>

- MANUFACTURING OVERHEAD

Dept. A	130,000	Dept. A	140,000
Dept. B	<u>135,000</u>	Dept. B	<u>119,000</u>
	265,000		259,000
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 predetermined 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: Moderate, Min: 11, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: Business Economics

Solution 185 (11–14 min.)

- (a) \$9 per machine hour ($\$1,800,000 \div 200,000$)
- (b)

Incurred	\$186,000
Applied ($\$9 \times 22,000$)	<u>198,000</u>
Overapplied overhead	<u>\$ 12,000</u>
- (c)

Incurred ($\$186,000 + \$1,940,000$)	\$2, 126,000
Applied ($\$9 \times 236,000$)	<u>2,124,000</u>
Underapplied overhead	<u>\$ 2,000</u>

Ex. 186

Klinger Company estimates that annual manufacturing overhead costs will be \$4,800,000 for 2022. The actual overhead costs at the end of 2022 are \$4,980,000. Activity base information for 2022 follows:

<u>Activity Base</u>	<u>Estimated</u>	<u>Actual</u>
Direct Labor Cost	\$3,000,000	\$3,150,000
Direct Labor Hours	200,000	212,000
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 2022 for each activity base.
- (c) Compute the amount of under- or overapplied overhead for 2022 for each activity base.

Ans: N/A, LO: 3, 5, Bloom: AP, Difficulty: Moderate, Min: 12, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Decision Making, IMA: Business Economics

Solution 186 (12–16 min.)

- (a) Predetermined overhead rate as a % of direct labor cost:
 $\$4,800,000 \div \$3,000,000 = 160\%$

Predetermined overhead rate per hour of direct labor:
 $\$4,800,000 \div 200,000 = \24 per hour

Predetermined overhead rate per machine hour used:
 $\$4,800,000 \div 150,000 = \32 per machine hour

- | | |
|--|--|
| <p>(b) Overhead applied as a % of direct labor cost:
 $\\$3,150,000 \times 160\% = \\$5,040,000$</p> <p>Overhead applied per hour of direct labor:
 $212,000 \times \\$24 = \\$5,088,000$</p> <p>Overhead applied per machine hour used:
 $152,000 \times \\$32 = \\$4,864,000$</p> | <p>(c) Over- or Underapplied Overhead
 $(\\$5,040,000 - \\$4,980,000 =$
 $\\$60,000 \text{ Overapplied})$</p> <p>$(\\$5,088,000 - \\$4,980,000 =$
 $\\$108,000 \text{ Overapplied})$</p> <p>$(\\$4,864,000 - \\$4,980,000 =$
 $\\$116,000 \text{ Underapplied})$</p> |
|--|--|

Ex. 187

Jensen Manufacturing Company makes specialty tools. In January, Jensen incurs manufacturing costs of \$13,000,000 for direct material, 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:

	<u>January 1</u>	<u>January 31</u>
Raw Materials	\$300,000	\$500,000
Work in Process	600,000	400,000
Finished Goods	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 2022.
 (c) Compute Cost of Goods Sold for January.

Ans: N/A, LO: 4, Bloom: AP, Difficulty: Moderate, Min: 15, AACSB: Analytic, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Decision Making, 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	<u>5,200,000</u>
	5,700,000
Less: Beginning Raw Materials Inventory	<u>300,000</u>
Raw materials purchases	<u>\$5,400,000</u>

(b) **JENSEN MANUFACTURING COMPANY**
Cost of Goods Manufactured Schedule
For the Month Ended January 31, 2022

Work in Process Inventory, January 1.....		\$ 600,000
Direct Materials Used.....	\$5,200,000	
Direct Labor.....	5,200,000	
Manufacturing Overhead Applied.....	<u>2,600,000</u>	
Total Manufacturing Costs.....		<u>13,000,000</u>
Total Work in Process Inventory.....		13,600,000
Less: Work in Process Inventory, January 31.....		<u>400,000</u>
Cost of Goods Manufactured.....		<u>\$ 13,200,000</u>
(c) Finished Goods Inventory, January 1.....		\$ 400,000
Cost of Goods Manufactured.....		<u>13,200,000</u>
Cost of Goods Available for Sale.....		13,600,000
Finished Goods Inventory, January 31.....		<u>200,000</u>
Cost of Goods Sold		<u>\$13,400,000</u>

Ex. 188

The following information is available for Marks Company at December 31, 2022:

- Inventory balance

	<u>Beginning of Year</u>	<u>End of Year</u>
Finished Goods	\$14,000	\$10,000
Work in Process	6,000	12,000
Raw Materials	10,300	6,500
- Debit postings to Work in Process Inventory during the year were:

Direct materials	\$90,000
Direct labor	60,000
Manufacturing overhead applied	75,000
- Sales totaled \$310,000 for the year.

Instructions

- Prepare a condensed cost of goods manufactured schedule.
- Prepare an income statement for the year through gross profit.

Solution 188 (14–18 min.)

(a)

MARKS COMPANY
Cost of Goods Manufactured Schedule
For the Year Ended December 31, 2022

Work in process inventory, January 1		\$ 6,000
Direct materials used	\$90,000	
Direct labor	60,000	
Manufacturing overhead applied	<u>75,000</u>	
Total manufacturing costs		<u>225,000</u>
Total cost of work in process inventory		231,000
Less: work in process inventory, December 31		<u>12,000</u>
Cost of goods manufactured		<u><u>\$219,000</u></u>

(b)

MARKS COMPANY
(Partial) Income Statement
For the Year Ended December 31, 2022

Sales revenue		\$310,000
Cost of Goods Sold		
Finished Goods Inventory, January 1	\$ 14,000	
Cost of Goods Manufactured	<u>219,000</u>	
Cost of Goods Available for Sale	233,000	
Less: Finished Goods Inventory, December 31	<u>10,000</u>	
Cost of Goods Sold		<u>223,000</u>
Gross Profit		<u><u>\$87,000</u></u>

COMPLETION STATEMENTS

189. Cost accounting involves the measuring, recording, and reporting of _____ costs.

Ans: N/A, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: Business Applications

190. There are two basic types of cost accounting systems: (1) _____ system, and (2) _____ system.

Ans: N/A, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, AICPA FN: Reporting, AICPA PC: None, IMA: Business Economics

191. A _____ cost system is appropriate when similar products are continuously produced, whereas a _____ 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: Global and Industry Perspectives, AICPA FN: Reporting, AICPA PC: None, IMA: Business Applications

192. In a job order cost system, raw materials purchased are charged to the _____ account.

Ans: N/A, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Global and Industry Perspectives, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: FSA

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193. In a job order cost system, _____ is charged when direct materials are requisitioned and placed into production.

Ans: N/A, LO: 1, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance 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 \$_____.

Ans: N/A, LO: 2, Bloom: AP, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: FSA

195. The cost of producing a particular job under a job order cost system is accumulated on a record called a _____.

Ans: N/A, LO: 2, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: Business Economics

196. Manufacturing overhead is applied to jobs by means of a _____ rate.

Ans: N/A, LO: 3, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: Business Economics

197. If actual manufacturing overhead is greater than the amount of manufacturing overhead applied to jobs, the Manufacturing Overhead account will have a _____ balance and overhead is said to be _____.

Ans: N/A, LO: 5, Bloom: K, Difficulty: Easy, Min: 1, AACSB: None, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: None, IMA: Business Economics

198. At the end of the period, any balance in the Manufacturing Overhead account should be eliminated as an adjustment to _____.

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

Answers to Completion Statements

- 189. product or service
- 190. job order cost, process cost
- 191. process, job order
- 192. Raw Materials Inventory
- 193. Work in Process Inventory
- 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 |

- _____ 1. Used to apply manufacturing overhead to jobs.
- _____ 2. Measures, records, and reports product and service costs.
- _____ 3. Actual manufacturing overhead costs are greater than overhead applied to products.
- _____ 4. Manufacturing cost accounts are fully integrated into the general ledger.
- _____ 5. Source document which authorizes issuance of raw materials to production.
- _____ 6. Appropriate when products have distinguishing and heterogeneous characteristics.
- _____ 7. Constitutes a subsidiary ledger for Work in Process Inventory.
- _____ 8. Indicates number of hours that employees work and the account to be charged.
- _____ 9. Appropriate when products are similar and are produced continuously.
- _____ 10. Actual manufacturing overhead costs are less than overhead applied to products.

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

Answers to Matching

- | | |
|------|-------|
| 1. H | 6. E |
| 2. A | 7. G |
| 3. J | 8. C |
| 4. D | 9. F |
| 5. 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: Global and Industry Perspectives, 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 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: Governance Perspective, AICPA FN: Reporting, AICPA PC: Communications, IMA: Business Economics

Solution 201

When a job order cost 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 to production, the costs are taken out of these accounts and charged 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.

Ans: N/A, LO: 3, Bloom: S, Difficulty: Easy, Min: 5, AACSB: Communications, AICPA BB: Governance Perspective, AICPA FN: Measurement, Analysis, and Interpretation, AICPA PC: Communications, IMA: Business Economics

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 estimated 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: Governance Perspective, AICPA FN: Reporting, AICPA PC: Communications, IMA: Business Economics

Solution 203

Underapplied overhead means that the overhead assigned to Work in Process inventory is less than the overhead incurred. Overapplied overhead means that the overhead assigned to Work in Process inventory 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.

Ans: N/A, LO: 2, Bloom: S, Difficulty: Easy, Min: 5, AACSB: Ethics, AICPA BB: Governance Perspective, AICPA FN: Reporting, AICPA PC: Communications, IMA: Business Economics

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. Established customers are generally 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: Governance 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)