# Job Order Costing and Analysis 

## True / False Questions

1. Cost accounting systems accumulate costs and then assigns them to products or services.

True False
2. A company that uses a cost accounting system normally has only two inventory accounts: Finished Goods Inventory and Work in Process Inventory.

True False
3. Cost accounting information is helpful to management for pricing decisions but has no effect on controlling costs.

True False
4. There are two basic types of cost accounting systems: job order costing and periodic costing.

True False
5. A company that produces a large number of standardized units would normally use a job order costing system.

True False
6. Job order production systems would be appropriate for companies that produce custom homes, specialized equipment, and special computer systems.

True False
7. Job order production systems would be appropriate for companies that produce compact disks or disposable cameras.

True False
8. A job order costing system would be appropriate for a manufacturer of automobile tires.

True False
9. Job order production systems would be appropriate for companies that produce training films for a specific customer or custom-made furniture to be used in a new five-star resort hotel.

True False
10. A company's file of job cost sheets jobs not yet completed equals the balance in the Finished Goods Inventory account.

True False
11. The direct materials section of a job cost sheet shows the materials costs assigned to a job, but the direct labor section only shows the total hours of labor allocated to the job.

True False
12. The collection of cost sheets for unfinished jobs makes up a subsidiary ledger controlled by the Work in Process Inventory account in the general ledger.

True False
13. A job cost sheet is useful for developing financial accounting numbers but does not contain information that is useful for managing the production process.

True False
14. Job cost sheets are used to track all of the costs assigned to a job, including direct materials, direct labor, overhead, and all selling and administrative costs.

True False
15. When a job is finished, its job cost sheet is completed and moved from the file of jobs in process to the file of finished jobs that are yet to be delivered to customers.

True False
16. The file of job cost sheets for completed but undelivered jobs equals the balance in the Work in Process Inventory account.

True False
17. Both direct and indirect labor costs are recorded on the individual job cost sheets.

True False
18. Service firms, unlike manufacturing firms, should only use actual costs when determining a selling price for their services.

True False
19. Job order costing is applicable to manufacturing firms only and not service firms.

True False
20. The cost of all direct materials issued to production is debited to Work in Process Inventory.

True False
21. A materials requisition is a source document used by production managers to request materials for production and also used to assign materials costs to specific jobs or to overhead.

True False
22. When materials are used as indirect materials, their cost is debited to the Factory Overhead account.

True False
23. A materials requisition is a source document used by materials managers of a manufacturing company to order raw materials from suppliers; it serves the same purpose as a purchase order in a merchandising company.

True False
24. Materials requisitions and time tickets are cost accounting source documents.

True False
25. A time ticket is a source document used by an employee to record the number of hours worked on a particular job during the work day.

True False
26. A time ticket is a source document that an employee uses to report how much direct and indirect labor was performed for a job and is used to determine the amount of direct labor to charge to the job and the amount of indirect labor to charge to factory overhead.

True False
27. A time ticket is a source document an employee uses to record the number of hours at work and that is used each pay period to determine the total labor cost.

True False
28. A time ticket is a source document used by an employee to record the total number of hours worked and serves as a source document for entries to record labor costs.

True False
29. When time ticket information is entered into the accounting system, the journal entry is a debit to Factory Payroll and a credit to Work in Process Inventory.

True False
30. The predetermined overhead rate is used to allocate overhead cost to jobs.

True False
31. Factory overhead is often collected and summarized in a subsidiary factory overhead ledger.

True False
32. Predetermined overhead rates are calculated at the end of the accounting period once the actual amount of factory overhead is known.

True False
33. Predetermined overhead rates are necessary because cost accountants use periodic inventory systems.

True False
34. The predetermined overhead rate based on direct labor cost is the ratio of estimated overhead cost to estimated direct labor cost for the period.

True False
35. In a job order costing system, indirect labor costs are debited to the Factory Overhead account. True False
36. Since a predetermined overhead rate is established before a period begins, this rate is revised many times during the period to compensate for inaccurate estimates previously made.

True False
37. Under a job order costing system, individual jobs are always charged with actual overhead costs when they are transferred to finished goods.

True False
38. Actual factory overhead incurred in a job costing system is debited to a Factory Overhead general ledger account and credited to various other accounts.

True False
39. Direct materials and direct labor are examples of costs that are debited to the Factory Overhead account in a job costing system.

True False
40. Overapplied overhead is the amount by which actual overhead cost exceeds the overhead applied to products during the period.

True False
41. In a job order costing system, any immaterial underapplied overhead at the end of the period can be charged entirely to Cost of Goods Sold.

True False
42. If actual overhead incurred during a period exceeds applied overhead, the difference will be a credit balance in the Factory Overhead account at the end of the period.

True False
43. The Factory Overhead account will have a credit balance at the end of a period if overhead applied during the period is greater than the overhead incurred.

True False
44. Material amounts of under- or overapplied factory overhead are always closed entirely to Cost of Goods Sold at the end of an accounting period.

True False
45. Underapplied overhead is the amount by which overhead applied to jobs using the predetermined overhead rate exceeds the overhead incurred during a period.

True False
46. Overapplied overhead is the amount by which overhead applied to jobs using the predetermined overhead rate exceeds the overhead incurred during a period.

True False
47. Overapplied or underapplied overhead should be removed from the Factory Overhead account at the end of each accounting period.

True False
48. If overhead is underapplied, it means that individual jobs have not been charged enough during the year and the cost of goods sold reported is too low.

True False
49. The schedule of cost of goods manufactured for a job costing system includes total actual factory overhead.

True False
50. Period costs for a manufacturing company, such as selling and administrative expenses, are recorded directly to Work In Process Inventory when they are incurred.

True False
51. Manufacturing costs incurred for jobs completed during an accounting period can bypass the inventory accounts on the balance sheet and be recorded directly in expense accounts.

True False

## Multiple Choice Questions

52. Cost accounting systems used by manufacturing companies are based on the:
A. Periodic inventory system.
B. Perpetual inventory system.
C. Finished goods inventories.
D. Weighted average inventories.
E. LIFO inventory system.
53. A system of accounting for production operations that produces timely information about inventories and manufacturing costs per unit of product is a:
A. Finished goods accounting system.
B. General accounting system.
C. Manufacturing accounting system.
D. Cost accounting system.
E. Production accounting system.
54. Job order costing systems normally use:
A. Periodic inventory systems.
B. Perpetual inventory systems.
C. Real inventory systems.
D. General inventory systems.
E. Any inventory systems is acceptable.
55. In comparison to a general accounting system, a cost accounting system for a manufacturing company places an emphasis on:
A. Periodic inventory counts.
B. Total costs.
C. Continually updating costs of materials, work in process, and finished goods inventories.
D. Products and average costs.
E. Large volume operations involving standardized products.
56. Features of a job costing system include all but which of the following:
A. Diversity of products produced.
B. Mass production.
C. Heterogeneity.
D. Customization.
E. Separate manufacturing from other products.
57. The two basic types of cost accounting systems are:
A. Job order costing and perpetual costing.
B. Job order costing and customized product costing.
C. Job order costing and customized service costing.
D. Job order costing and process costing.
E. Job order costing and periodic costing.
58. The production activities for a customized product represent $a(n)$ :
A. Operation.
B. Job.
C. Unit.
D. Pool.
E. Process.
59. A job order costing system would best fit the needs of a company that makes:
A. Shoes and apparel.
B. Paint.
C. Cement.
D. Custom machinery.
E. Pencils and erasers.
60. Job order production is also known as:
A. Mass production.
B. Process production.
C. Unit production.
D. Customized production.
E. Standard costing.
61. Omega Contractors manufactures each house to customer specifications. It most likely would use:
A. Process costing.
B. A periodic inventory system.
C. Unique costing.
D. Job order costing.
E. Activity-based costing.
62. A type of production that yields customized products or services for each customer is called:
A. Customer orientation production.
B. Job order production.
C. Just-in-time production.
D. Job lot production.
E. Process production.
63. A company that makes which of the following types of products would best be suited for a job costing system?
A. Fruit juice
B. Bathing suits
C. Snack chips
D. Compact discs
E. Custom jewelry
64. The target cost for a job using job costing is calculated as:
A. direct costs + desired profit
B. direct costs - desired profit
C. expected selling price - direct costs
D. expected selling price - desired profit
E. expected selling price + desired profit
65. A job order production system would be appropriate for a company that produces which one of the following items?
A. A landscaping design for a new hospital.
B. Seedlings for sale in a nursery.
C. Sacks of yard fertilizer.
D. Packets of flower seeds.
E. Small gardening tools, including rakes, shovels, and hoes.
66. Large aircraft producers such as the Boeing Company normally use:
A. Job order costing.
B. Process costing.
C. Mixed costing.
D. Full costing.
E. Simple costing.
67. A document in a job order costing system that is used to record the costs of producing a job is $a(n)$ :
A. Job cost sheet.
B. Job lot.
C. Finished goods summary.
D. Process cost system.
E. Units-of-production sheet.
68. A job cost sheet shows information about each of the following items except:
A. The direct labor costs assigned to the job.
B. The name of the customer.
C. The costs incurred by the marketing department in selling the job.
D. The overhead costs assigned to the job.
E. The direct materials costs assigned to the job.
69. The job order cost sheets used by Greene Company revealed the following:

| Job <br> No. | Bal., May <br> $\mathbf{1}$ | May Production <br> Costs |
| :--- | ---: | ---: |
| 134 | $\$ 1,700$ | $\$ 0$ |
| 135 | 1,200 | 300 |
| 136 | 0 | 900 |

Job No. 135 was completed during May and Jobs No. 134 and 135 were shipped to customers in May. What was the company's cost of goods sold for May and the Work in Process inventory on May 31?
A. $\$ 3,200 ; \$ 900$.
B. $\$ 2,900 ; \$ 1,200$.
C. \$1,200; \$2,900.
D. $\$ 1,700 ; \$ 1,200$.
E. \$4,100; \$0.
70. Job A3B was ordered by a customer on September 25. During the month of September, Jaycee Corporation requisitioned $\$ 2,500$ of direct materials and used $\$ 4,000$ of direct labor. The job was not finished by the end of the month, but needed an additional $\$ 3,000$ of direct materials and additional direct labor of $\$ 6,500$ to finish the job in October. The company applies overhead at the end of each month at a rate of $200 \%$ of the direct labor cost incurred. What is the balance in the Work in Process account at the end of September relative to Job A3B?
A. $\$ 5,500$
B. $\$ 11,500$
C. \$6,500
D. \$9,500
E. $\$ 14,500$
71. Job A3B was ordered by a customer on September 25. During the month of September, Jaycee Corporation requisitioned $\$ 2,500$ of direct materials and used $\$ 4,000$ of direct labor. The job was not finished by the end of the month, but needed an additional $\$ 3,000$ of direct materials and additional direct labor of $\$ 6,500$ to finish the job in October. The company applies overhead at the end of each month at a rate of $200 \%$ of the direct labor cost incurred. What is the total cost of the job when it is completed in October?
A. $\$ 16,000$
B. $\$ 22,500$
C. \$37,000
D. $\$ 26,500$
E. \$32,000
72. Job A3B was ordered by a customer on September 25. During the month of September, Jaycee Corporation requisitioned $\$ 2,500$ of direct materials and used $\$ 4,000$ of direct labor. The job was not finished by the end of the month, but needed an additional $\$ 3,000$ of direct materials in October and additional direct labor of $\$ 6,500$ to finish the job. The company applies overhead at the end of each month at a rate of $200 \%$ of the direct labor cost. What is the amount of job costs added to Work in Process Inventory during October?
A. $\$ 16,000$
B. $\$ 22,500$
C. $\$ 37,000$
D. $\$ 26,500$
E. \$32,000
73. A job cost sheet includes:
A. Direct materials, direct labor, operating costs.
B. Direct materials, estimated overhead, administrative costs.
C. Direct labor, actual overhead, selling costs.
D. Direct materials, direct labor, estimated overhead.
E. Direct materials, direct labor, selling costs.
74. The balance in the Work In Process Inventory at any point in time is equal to:
A. The costs for jobs finished during the period but not yet sold.
B. The cost of jobs ordered but not yet started into production.
C. The sum of the costs for all jobs in process but not yet completed.
D. The costs of all jobs started during the period, completed or not.
E. The sum of the materials, labor and overhead costs paid during the period.
75. The Work in Process Inventory account of a manufacturing company that uses an overhead rate based on direct labor cost has a $\$ 3,200$ debit balance after all posting is completed. The cost sheet of the one job still in process shows direct material cost of $\$ 1,400$ and direct labor cost of $\$ 800$. Therefore, the amount of the applied overhead is:
A. $\$ 1,800$.
B. $\$ 2,200$.
C. $\$ 1,000$.
D. $\$ 800$.
E. $\$ 2,400$.
76. The Work in Process Inventory account of a manufacturing company that uses an overhead rate based on direct labor cost has a $\$ 4,400$ debit balance after all posting is completed. The cost sheet of the one job still in process shows direct material cost of $\$ 2,000$ and direct labor cost of $\$ 800$. Therefore, the company's overhead application rate is:
A. $40 \%$.
B. $50 \%$.
C. $80 \%$.
D. $200 \%$.
E. 220\%.
77. A perpetual record of a raw materials item that records data on the quantity and cost of units purchased, units issued for use in production, and units that remain in the raw materials inventory, is called $a(n)$ :
A. Materials ledger card.
B. Materials requisition.
C. Purchase order.
D. Materials voucher.
E. Purchase ledger.
78. A source document that production managers use to request materials for production and that is used to assign materials costs to specific jobs or to overhead is a:
A. Job cost sheet.
B. Production order.
C. Materials requisition.
D. Materials purchase order.
E. Receiving report.
79. A company that uses a job order costing system would make the following entry to record the flow of direct materials into production:
A. debit Work in Process Inventory, credit Cost of Goods Sold.
B. debit Work in Process Inventory, credit Raw Materials Inventory.
C. debit Work in Process Inventory, credit Factory Overhead.
D. debit Factory Overhead, credit Raw Materials Inventory.
E. debit Finished Goods Inventory, credit Raw Materials Inventory.
80. The Work in Process Inventory account for DG Manufacturing follows. Compute the cost of jobs completed and transferred to Finished Goods Inventory.

| Work in Process Inventory |  |  |  |
| :--- | ---: | ---: | ---: |
|  | DR | CR |  |
| Beginning balance | 4,500 |  |  |
| Direct materials | 47,100 |  |  |
| Direct labor | 29,600 | $?$ | Finished goods |
| Applied overhead | 15,800 |  |  |
| Ending balance | 8,900 |  |  |

The cost of units transferred to finished goods is:
A. $\$ 97,000$.
B. $\$ 105,900$.
C. $\$ 88,100$.
D. $\$ 95,200$.
E. \$92,500.
81. A company's overhead rate is $60 \%$ of direct labor cost. Using the following incomplete accounts, determine the cost of direct materials used.

| Work in Process Inventory |  |  |  | Finished Goods Inventory |  |  |  |
| :--- | ---: | ---: | :--- | :--- | ---: | ---: | ---: |
| DR |  | CR |  | DR |  | CR |  |
| Beg. Bal. | 100,800 |  |  | Beg. Bal. | 118,200 |  |  |
| D.M. | $?$ |  |  |  | 324,800 |  | 301,000 |
| D.L. | $?$ |  |  |  |  |  |  |
| O.H. | $?$ | F.G. | $?$ |  |  |  |  |
| End. Bal. | 131,040 |  |  | End. Bal. | 142,000 |  |  |


| Factory Overhead |  |  |
| ---: | ---: | :---: |
| DR | CR |  |
| 93,240 | 90,720 |  |

A. $\$ 106,400$.
B. \$113,120.
C. $\$ 30,240$.
D. $\$ 211,680$.
E. \$324,800.
82. A source document that an employee uses to report how much time was spent working on a job or on overhead activities and that is used to determine the amount of direct labor to charge to the job or to determine the amount of indirect labor to charge to factory overhead is called a:
A. Payroll Register.
B. Factory payroll record.
C. General Ledger.
D. Time ticket.
E. Factory Overhead Ledger.
83. When factory payroll costs for labor are allocated in a job cost accounting system:
A. Factory Payroll is debited and Work in Process Inventory is credited.
B. Work in Process Inventory and Factory Overhead are debited and Factory Payroll is credited.
C. Cost of Goods Manufactured is debited and Direct Labor is credited.
D. Direct Labor and Indirect Labor are debited and Factory Payroll is credited.
E. Work in Process Inventory is debited and Factory Payroll is credited.
84. Oxford Company uses a job order costing system. In the last month, the system accumulated labor time tickets total $\$ 24,600$ for direct labor and $\$ 4,300$ for indirect labor. These costs were accumulated in Factory Payroll as they were paid. Which entry should Oxford make to assign the Factory Payroll?
A. Debit Payroll Expense $\$ 28,900$; credit Cash $\$ 28,900$.
B. Debit Payroll Expense $\$ 24,600$; debit Factory Overhead $\$ 4,300$; credit Factory Payroll $\$ 28,900$.
C. Debit Work in Process Inventory $\$ 24,600$; debit Factory Overhead $\$ 4,300$; credit Factory Payroll \$28,900.
D. Debit Work in Process Inventory $\$ 24,600$; debit Factory Overhead $\$ 4,300$; credit Wages Payable \$28,900.
E. Debit Work in Process Inventory $\$ 28,900$; credit Factory Payroll $\$ 28,900$.
85. Labor costs in production can be:
A. Direct or indirect.
B. Indirect or sunk.
C. Direct or payroll.
D. Indirect or payroll.
E. Direct or sunk.
86. An example of direct labor cost is:
A. Supervisor salary
B. Maintenance worker wages
C. Janitor wages
D. Product assembler wages
E. Accountant salary
87. A company has an overhead application rate of $125 \%$ of direct labor costs. How much overhead would be allocated to a job if it required total labor costing $\$ 20,000$ ?
A. $\$ 5,000$.
B. $\$ 16,000$.
C. $\$ 25,000$.
D. $\$ 125,000$.
E. \$250,000.
88. The rate established prior to the beginning of a period that uses estimated overhead and an allocation factor such as estimated direct labor, and that is used to assign overhead cost to jobs, is the:
A. Predetermined overhead rate.
B. Overhead variance rate.
C. Estimated labor cost rate.
D. Chargeable overhead rate.
E. Miscellaneous overhead rate.
89. Kayak Company uses a job order costing system and allocates its overhead on the basis of direct labor costs. Kayak Company's production costs for the year were: direct labor, \$30,000; direct materials, $\$ 50,000$; and factory overhead applied $\$ 6,000$. The overhead application rate was:
A. 5.0\%.
B. $12.0 \%$.
C. 20.0\%.
D. $500.0 \%$.
E. 16.7\%.
90. Lowden Company has an overhead application rate of $160 \%$ and allocates overhead based on direct material cost. During the current period, direct labor cost is $\$ 50,000$ and direct materials used cost \$80,000. Determine the amount of overhead Lowden Company should record in the current period.
A. $\$ 31,250$.
B. $\$ 50,000$.
C. $\$ 80,000$.
D. $\$ 128,000$.
E. \$208,000.
91. The overhead cost applied to a job during a period is recorded with a credit to Factory Overhead and a debit to:
A. Jobs Overhead Expense.
B. Cost of Goods Sold.
C. Finished Goods Inventory.
D. Indirect Labor.
E. Work in Process Inventory.
92. CWN Company uses a job order costing system and last period incurred \$80,000 of actual overhead and $\$ 100,000$ of direct labor. CWN estimates that its overhead next period will be $\$ 75,000$. It also expects to incur $\$ 100,000$ of direct labor. If CWN bases applied overhead on direct labor cost, its predetermined overhead rate for the next period should be:
A. $75 \%$.
B. $80 \%$.
C. $107 \%$.
D. $125 \%$.
E. 133\%.
93. Cosi Company uses a job order costing system and allocates its overhead on the basis of direct labor costs. Cosi expects to incur $\$ 800,000$ of overhead during the next period, and expects to use 50,000 labor hours at a cost of $\$ 10.00$ per hour. What is Cosi Company's overhead application rate?
A. $6.25 \%$.
B. $62.5 \%$.
C. $160 \%$.
D. 1600\%.
E. 67\%.
94. The B\&T Company's production costs for May are: direct labor, \$13,000; indirect labor, \$6,500; direct materials, \$15,000; property taxes on production equipment, \$800; heat, lights and power, $\$ 1,000$; and insurance on plant and equipment, \$200. B\&T Company's factory overhead incurred for May is:
A. $\$ 2,000$.
B. $\$ 6,500$.
C. $\$ 8,500$.
D. $\$ 21,500$.
E. $\$ 36,500$.
95. Mesa Corp. allocates overhead to production on the basis of direct labor costs. Mesa's total estimated overhead is $\$ 450,000$ and estimated direct labor is $\$ 180,000$. Determine the amount of overhead to be allocated to finished goods inventory if there is $\$ 20,000$ of total direct labor cost in the jobs in the finished goods inventory.
A. \$8,000.
B. $\$ 20,000$.
C. $\$ 70,000$.
D. $\$ 50,000$.
E. \$90,000.
96. Dallas Company uses a job order costing system. The company's executives estimated that direct labor would be $\$ 2,000,000$ (200,000 hours at $\$ 10 /$ hour ) and that factory overhead would be $\$ 1,500,000$ for the current period. At the end of the period, the records show that there had been 180,000 hours of direct labor and \$1,200,000 of actual overhead costs. Using direct labor hours as a base, what was the predetermined overhead rate?
A. $\$ 6.00$ per direct labor hour.
B. $\$ 7.50$ per direct labor hour.
C. $\$ 6.67$ per direct labor hour.
D. $\$ 8.33$ per direct labor hour.
E. $\$ 7.08$ per direct labor hour.
97. Using the following accounts and an overhead rate of $90 \%$ of direct labor cost, determine the amount of applied overhead.

| Work in Process Inventory |  |  |  | Finished Goods Inventory |  |  |  |
| :--- | ---: | ---: | :--- | :--- | ---: | ---: | :--- |
| DR |  | CR |  | DR |  | CR |  |
| Beg. Bal. | 17,600 |  |  | Beg. Bal. | 5,200 |  |  |
| D.M. | 52,800 |  |  |  | 201,520 |  |  |
| D.L. | $?$ |  |  |  |  |  |  |
| O.H. | $?$ | F.G. | $?$ |  |  |  |  |
| End. Bal. | 36,080 |  |  |  |  |  |  |

A. \$79,200.
B. \$167,200.
C. \$34,320.
D. $\$ 88,000$.
E. \$35,376.
98. If one unit of Product $Z 2$ used $\$ 2.50$ of direct materials and $\$ 3.00$ of direct labor, sold for $\$ 8.00$, and was assigned overhead at the rate of $30 \%$ of direct labor costs, how much gross profit was realized from this sale?
A. $\$ 8.00$.
B. \$5.50.
C. \$2.50.
D. $\$ 1.60$.
E. \$0.90.
99. The ending inventory of finished goods has a total cost of $\$ 9,000$ and consists of 600 units. If the overhead applied to these goods is $\$ 3,000$, and the overhead rate is $75 \%$ of direct labor, how much direct materials cost was incurred in producing these units?
A. $\$ 3,750$.
B. $\$ 2,000$.
C. $\$ 4,000$.
D. $\$ 6,000$.
E. \$9,000.
100. At the current year-end, Simply Company found that its overhead was underapplied by $\$ 2,500$, and this amount was not considered material. Based on this information, Simply should:
A. Close the $\$ 2,500$ to Cost of Goods Sold.
B. Close the $\$ 2,500$ to Finished Goods Inventory.
C. Do nothing about the $\$ 2,500$, since it is not material, and it is likely that overhead will be overapplied by the same amount next year.
D. Carry the $\$ 2,500$ to the income statement as "Other Expense".
E. Carry the $\$ 2,500$ to the next period.
101. If overhead applied is less than actual overhead incurred, it is:
A. Fully applied.
B. Underapplied.
C. Overapplied.
D. Expected.
E. Normal.
102. The amount by which the overhead applied to jobs during a period exceeds the overhead incurred during the period is known as:
A. Adjusted overhead.
B. Estimated overhead.
C. Predetermined overhead.
D. Underapplied overhead.
E. Overapplied overhead.
103. The amount by which overhead incurred during a period exceeds the overhead applied to jobs is:
A. Balanced overhead.
B. Predetermined overhead.
C. Actual overhead.
D. Underapplied overhead.
E. Overapplied overhead.
104. If a company applies overhead to production with a predetermined overhead rate, a credit balance in the Factory Overhead account at the end of the period means that:
A. The bookkeeper has made an error because the debits don't equal the credits.
B. The balance will be carried forward to the next period as an overhead cost.
C. Actual overhead incurred was less than the overhead amount applied to production.
D. The overhead was underapplied for the period.
E. Actual overhead was greater than the overhead amount applied to production.
105. Marshall Enterprises charged the following amounts of overhead to jobs during the year: $\$ 20,000$ to jobs still in process, \$60,000 to jobs completed but not sold, and \$120,000 to jobs finished and sold. At year-end, Marshall Enterprise's Factory Overhead account has a credit balance of \$5,000, which is not a material amount. What entry should Marshall make at year-end?
A. No entry is needed.
B. Debit Factory Overhead $\$ 5,000$; credit Cost of Goods Sold $\$ 5,000$.
C. Debit Cost of Goods Sold \$5,000; credit Factory Overhead \$5,000.
D. Debit Factory Overhead \$5,000; credit Work in Process Inventory \$5,000.
E. Debit Factory Overhead \$5,000; credit Finished Goods Inventory \$5,000.
106. Clemmens Company applies overhead based on direct labor cost. Estimated overhead and direct labor costs for the year were $\$ 112,500$ and $\$ 125,000$, respectively. During the year, actual overhead was $\$ 107,400$ and actual direct labor cost was $\$ 120,000$. The entry to close the over- or underapplied overhead at year-end, assuming an immaterial amount, would include:
A. A debit to Cost of Goods Sold for $\$ 600$.
B. A credit to Factory Overhead for $\$ 600$.
C. A credit to Finished Goods Inventory for $\$ 600$.
D. A debit to Work in Process Inventory for $\$ 600$.
E. A credit to Cost of Goods Sold for $\$ 600$.
107. If overapplied or underapplied overhead is material, it should be disposed of by allocating it to:
A. Cost of goods sold and finished goods inventory.
B. Finished goods inventory and work in process inventory.
C. work in process inventory, finished goods inventory, and cost of goods sold.
D. work in process inventory.
E. Raw materials inventory, work in process inventory, and finished goods inventory.
108. The Marina Corp. has applied overhead to jobs during the period as follows:

| Jobs finished and sold | $\$ 46,000$ |
| :--- | ---: |
| Jobs started and in process | 54,000 |
| Jobs finished and unsold | 100,000 |

The application of overhead has resulted in a $\$ 5,600$ credit balance in the Factory Overhead account, and this amount is not material. The entry to dispose of this remaining factory overhead balance is:
A. Debit Cost of Goods Sold $\$ 5,600$; credit Factory Overhead $\$ 5,600$.
B. Debit Factory Overhead $\$ 5,600$; credit Cost of Goods Sold \$5,600.
C. Debit Factory Overhead $\$ 5,600$; credit Work in Process Inventory $\$ 5,600$.
D. Debit Work in Process Inventory $\$ 5,600$; credit Factory Overhead $\$ 5,600$.
E. No entry is needed.
109. Andrew Industries purchased $\$ 165,000$ of raw materials on account during the month of March.

The beginning Raw Materials Inventory balance was $\$ 22,000$, and the materials used to complete jobs during the month were $\$ 141,000$ direct materials and $\$ 13,000$ indirect materials. What is the ending Raw Materials Inventory balance for March?
A. $\$ 46,000$
B. $\$ 11,000$
C. $\$ 33,000$
D. $\$ 24,000$
E. \$9,000
110. Andrew Industries purchased $\$ 165,000$ of raw materials on account during the month of March. The beginning Raw Materials Inventory balance was $\$ 22,000$, and the materials used to complete jobs during the month were $\$ 141,000$ direct materials and $\$ 13,000$ indirect materials. How should Andrews journalize the purchase of raw materials for March?
A. Debit Raw Materials Inventory \$165,000; credit Accounts Payable \$165,000
B. Debit Work In Process Inventory \$165,000; credit Raw Materials Inventory \$165,000
C. Debit Raw Materials Inventory $\$ 187,000$; credit Cash $\$ 187,000$
D. Debit Accounts Payable \$165,000; credit Raw Materials Inventory \$165,000
E. Debit Accounts Payable $\$ 187,000$; credit Raw Materials Inventory $\$ 187,000$
111. Andrew Industries purchased $\$ 165,000$ of raw materials on account during the month of March. The beginning Raw Materials Inventory balance was $\$ 22,000$, and the materials used to complete jobs during the month were $\$ 141,000$ direct materials and $\$ 13,000$ indirect materials. What amount will Andrew transfer to Work In Process Inventory for the month of March?
A. $\$ 165,000$
B. $\$ 154,000$
C. $\$ 13,000$
D. $\$ 141,000$
E. \$33,000
112. Andrew Industries purchased $\$ 165,000$ of raw materials on account during the month of March. The beginning Raw Materials Inventory balance was $\$ 22,000$, and the materials used to complete jobs during the month were $\$ 141,000$ direct materials and $\$ 13,000$ indirect materials. What journal entry should Andrew use to account for direct materials used in March:
A. Debit Raw Materials Inventory $\$ 141,000$; credit Accounts Payable $\$ 141,000$.
B. Debit Work in Process Inventory $\$ 141,000$; credit Raw Materials Inventory $\$ 141,000$.
C. Debit Work in Process Inventory $\$ 141,000$; credit Accounts Payable $\$ 141,000$.
D. Debit Finished Goods Inventory \$22,000; credit Raw Materials Inventory \$22,000.
E. Debit Raw Materials Inventory \$153,000; credit Work In Process \$153,000.
113. Juarez Builders incurred $\$ 285,000$ of labor costs for construction jobs completed during the month of August, of which $\$ 212,000$ was direct and $\$ 73,000$ was indirect supervisory costs. The correct journal entry to record the direct labor for the month is:
A. Debit Payroll Expense $\$ 212,000$; credit Cash $\$ 212,000$.
B. Debit Factory Wages Payable $\$ 285,000$; credit Work in Process Inventory $\$ 212,000$.
C. Debit Work in Process Inventory $\$ 212,000$; credit Cash $\$ 285,000$.
D. Debit Factory Wages $\$ 285,000$; credit Factory Wages Payable $\$ 285,000$.
E. Debit Work in Process Inventory \$212,000; credit Factory Wages Payable \$212,000.
114. Juarez Builders incurred $\$ 285,000$ of labor costs for construction jobs completed during the month of August, of which $\$ 212,000$ was direct and $\$ 73,000$ was indirect supervisory costs. The correct journal entry to record the $\$ 73,000$ indirect labor for the month is:
A. Debit Supervisor Wage Expense; credit Factory Wages Payable.
B. Debit Factory Overhead; credit Factory Wages Payable.
C. Debit Supervisor Wage Expense; credit Factory Overhead.
D. Debit Factory Wages Payable; credit Factory Overhead.
E. Debit Factory Wage Expense; credit Cash.
115. Minstrel Manufacturing uses a job order costing system. During one month Minstrel purchased $\$ 198,000$ of raw materials on credit; issued materials to production of $\$ 195,000$ of which $\$ 30,000$ were indirect. Minstrel incurred a factory payroll of $\$ 150,000$, paid in cash, of which $\$ 40,000$ was indirect labor. Minstrel uses a predetermined overhead rate of $150 \%$ of direct labor cost. The journal entry to record the purchase of materials is:
A. Debit Raw Materials Inventory $\$ 198,000$; credit Accounts Payable $\$ 198,000$.
B. Debit Work in Process Inventory \$198,000; credit Accounts Payable \$198,000.
C. Debit Raw Materials Inventory \$198,000; credit Work in Process Inventory \$198,000.
D. Debit Work in Process Inventory \$195,000; credit Raw Materials Inventory \$195,000.
E. Debit Raw Materials Inventory \$198,000; credit Finished Goods Inventory \$198,000.
116. Minstrel Manufacturing uses a job order costing system. During one month Minstrel purchased $\$ 198,000$ of raw materials on credit; issued materials to production of $\$ 195,000$ of which $\$ 30,000$ were indirect. Minstrel incurred a factory payroll of $\$ 150,000$, paid in cash, of which $\$ 40,000$ was indirect labor. Minstrel uses a predetermined overhead rate of $150 \%$ of direct labor cost. The journal entry to record the issuance of materials to production is:
A. Debit Raw Materials Inventory $\$ 195,000$; credit Accounts Payable $\$ 195,000$.
B. Debit Work in Process Inventory $\$ 195,000$; credit Raw Materials Inventory $\$ 195,000$.
C. Debit Raw Materials Inventory $\$ 195,000$; credit Work in Process Inventory $\$ 195,000$.
D. Debit Work in Process Inventory $\$ 165,000$; debit Factory Overhead $\$ 30,000$; credit Raw Materials Inventory \$195,000.
E. Debit Finished Goods Inventory $\$ 195,000$; credit Raw Materials Inventory $\$ 195,000$.
117. Minstrel Manufacturing uses a job order costing system. During one month Minstrel purchased $\$ 198,000$ of raw materials on credit; issued materials to production of $\$ 195,000$ of which $\$ 30,000$ were indirect. Minstrel incurred a factory payroll of $\$ 150,000$, paid in cash, of which $\$ 40,000$ was indirect labor. Minstrel uses a predetermined overhead rate of $150 \%$ of direct labor cost. The journal entry to record payment of the factory payroll is:
A. Debit Work in Process Inventory $\$ 150,000 ;$ credit Factory Wages Payable $\$ 150,000$.
B. Debit Work in Process Inventory $\$ 150,000$; credit Cash $\$ 150,000$.
C. Debit Factory Wages Payable $\$ 150,000$; credit Cash $\$ 150,000$.
D. Debit Work in Process Inventory $\$ 110,000$; debit Factory Overhead $\$ 40,000$; credit Factory Wages Payable \$150,000.
E. Debit Work in Process Inventory \$110,000; debit Factory Overhead \$40,000; credit Cash \$150,000.
118. Minstrel Manufacturing uses a job order costing system. During one month Minstrel purchased $\$ 198,000$ of raw materials on credit; issued materials to production of $\$ 195,000$ of which $\$ 30,000$ were indirect. Minstrel incurred a factory payroll of $\$ 150,000$, paid in cash, of which $\$ 40,000$ was indirect labor. Minstrel uses a predetermined overhead rate of $150 \%$ of direct labor cost. The journal entry to record the allocation of the factory payroll to production is:
A. Debit Work in Process Inventory $\$ 150,000 ;$ credit Factory Wages Payable $\$ 150,000$.
B. Debit Work in Process Inventory $\$ 150,000$; credit Cash $\$ 150,000$.
C. Debit Factory Wages Payable $\$ 150,000$; credit Cash $\$ 150,000$.
D. Debit Work in Process Inventory $\$ 110,000$; debit Factory Overhead $\$ 40,000$; credit Factory Wages Payable \$150,000.
E. Debit Work in Process Inventory \$110,000; debit Factory Overhead \$40,000; credit Cash \$150,000.
119. Minstrel Manufacturing uses a job order costing system. During one month Minstrel purchased $\$ 198,000$ of raw materials on credit; issued materials to production of $\$ 195,000$ of which $\$ 30,000$ were indirect. Minstrel incurred a factory payroll of $\$ 150,000$, paid in cash, of which $\$ 40,000$ was indirect labor. Minstrel uses a predetermined overhead rate of $150 \%$ of direct labor cost. The journal entry to record the application of factory overhead to production is:
A. Debit Work in Process Inventory $\$ 225,000$; credit Factory Overhead $\$ 225,000$.
B. Debit Work in Process Inventory $\$ 165,000$; credit Factory Overhead $\$ 165,000$.
C. Debit Factory Payroll \$150,000; credit Work in Process Inventory \$150,000.
D. Debit Factory Overhead $\$ 165,000$; credit Work in Process Inventory $\$ 165,000$.
E. Debit Work in Process Inventory \$165,000; credit Factory Payroll \$165,000.
120. Minstrel Manufacturing uses a job order costing system. During one month Minstrel purchased $\$ 198,000$ of raw materials on credit; issued materials to production of $\$ 195,000$ of which $\$ 30,000$ were indirect. Minstrel incurred a factory payroll of $\$ 150,000$, paid in cash, of which $\$ 40,000$ was indirect labor. Minstrel uses a predetermined overhead rate of $150 \%$ of direct labor cost. The total manufacturing costs added during the period are:
A. $\$ 440,000$.
B. $\$ 470,000$.
C. $\$ 500,000$.
D. \$570,000.
E. $\$ 540,000$.
121. Minstrel Manufacturing uses a job order costing system. During one month Minstrel purchased $\$ 198,000$ of raw materials on credit; issued materials to production of $\$ 195,000$ of which $\$ 30,000$ were indirect. Minstrel incurred a factory payroll of $\$ 150,000$, paid in cash, of which $\$ 40,000$ was indirect labor. Minstrel uses a predetermined overhead application rate of $150 \%$ of direct labor cost. If Minstrel incurred total overhead costs of $\$ 167,800$ during the month, compute the amount of under- or overapplied overhead:
A. $\$ 2,800$ overapplied.
B. $\$ 17,800$ underapplied.
C. $\$ 2,800$ underapplied.
D. \$17,800 overapplied.
E. \$57,200 overapplied.
122. Minstrel Manufacturing uses a job order costing system. During one month Minstrel purchased $\$ 198,000$ of raw materials on credit; issued materials to production of $\$ 195,000$ of which $\$ 30,000$ were indirect. Minstrel incurred a factory payroll of $\$ 150,000$, paid in cash, of which $\$ 40,000$ was indirect labor. Minstrel uses a predetermined overhead application rate of $150 \%$ of direct labor cost. Minstrel's beginning and ending Work in Process Inventory are \$15,500 and \$27,000 respectively. Compute the cost of product transferred to Finished Goods Inventory:
A. $\$ 558,500$.
B. $\$ 440,000$.
C. \$413,000.
D. $\$ 428,500$.
E. \$415,000.
123. Finished goods inventory is $\$ 190,000$. If overhead applied to these goods is $\$ 72,000$, and the overhead rate is $120 \%$ of direct labor, how much direct materials cost was incurred in producing the inventory?
A. $\$ 31,600$.
B. $\$ 58,000$.
C. \$56,000.
D. $\$ 60,000$.
E. \$86,400.
124. Adams Manufacturing allocates overhead to production on the basis of direct labor costs. At the beginning of the year, Adams estimated total overhead of \$396,000; materials of $\$ 410,000$ and direct labor of $\$ 220,000$. During the year Adams incurred $\$ 418,000$ in materials costs, $\$ 413,200$ in overhead costs and $\$ 224,000$ in direct labor costs. Compute the overhead application rate.
A. 180\%.
B. $55.6 \%$.
C. $186 \%$.
D. 184\%.
E. 96.6\%.
125. Adams Manufacturing allocates overhead to production on the basis of direct labor costs. At the beginning of the year, Adams estimated total overhead of \$396,000; materials of $\$ 410,000$ and direct labor of $\$ 220,000$. During the year Adams incurred $\$ 418,000$ in materials costs, $\$ 413,200$ in overhead costs and $\$ 224,000$ in direct labor costs. Compute the amount of overhead applied to jobs during the year.
A. $\$ 396,000$.
B. $\$ 424,450$.
C. \$413,190.
D. \$413,200.
E. \$403,200.
126. Adams Manufacturing allocates overhead to production on the basis of direct labor costs. At the beginning of the year, Adams estimated total overhead of \$396,000; materials of $\$ 410,000$ and direct labor of $\$ 220,000$. During the year Adams incurred $\$ 418,000$ in materials costs, $\$ 413,200$ in overhead costs and $\$ 224,000$ in direct labor costs. Compute the amount of under- or overapplied overhead for the year.
A. \$10,000 overapplied.
B. \$17,200 overapplied.
C. \$10,000 underapplied.
D. \$17,200 underapplied.
E. \$4,800 underapplied.
127. Using the following accounts and an overhead rate of $130 \%$ of direct labor cost, compute the amount of applied overhead.

| Work in Process Inventory |  |  |  | Finished Goods Inventory |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :--- |
| DR |  | CR |  | DR |  | CR |  |
| Beg. Bal. | 35,200 |  |  | Beg. Bal. | 5,200 |  |  |
| D.M. | 55,300 |  |  |  | 203,300 |  |  |
| D.L. | $?$ |  |  |  |  |  |  |
| O.H. | $?$ | F.G. | 203,300 |  |  |  |  |
| End. Bal. | 25,200 |  |  |  |  |  |  |

A. $\$ 78,000$.
B. \$60,000.
C. $\$ 138,000$.
D. $\$ 71,890$.
E. \$90,500.
128. Portside Watercraft uses a job order costing system. During one month Portside purchased $\$ 153,000$ of raw materials on credit; issued materials to production of $\$ 164,000$ of which $\$ 24,000$ were indirect. Portside incurred a factory payroll of $\$ 95,000$, paid in cash, of which $\$ 25,000$ was indirect labor. Portside uses a predetermined overhead rate of $170 \%$ of direct labor cost. The journal entry to record the issuance of materials to production is:
A. Debit Raw Materials Inventory $\$ 153,000$; credit Accounts Payable \$153,000.
B. Debit Work in Process Inventory \$140,000; debit Factory Overhead \$24,000; credit Raw Materials Inventory \$164,000.
C. Debit Raw Materials Inventory \$195,000; credit Work in Process Inventory \$195,000.
D. Debit Work in Process Inventory \$140,000; debit Raw Materials Inventory \$24,000; credit Materials Inventory \$164,000.
E. Debit Finished Goods Inventory \$140,000; credit Raw Materials Inventory \$140,000.
129. Portside Watercraft uses a job order costing system. During one month Portside purchased $\$ 153,000$ of raw materials on credit; issued materials to production of $\$ 164,000$ of which $\$ 24,000$ were indirect. Portside incurred a factory payroll of $\$ 95,000$, paid in cash, of which $\$ 25,000$ was indirect labor. Portside uses a predetermined overhead rate of $170 \%$ of direct labor cost. The journal entry to record the allocation of factory payroll to production is:
A. Debit Work in Process Inventory \$95,000; credit Factory Payroll \$95,000.
B. Debit Work in Process Inventory \$95,000; credit Cash \$95,000.
C. Debit Factory Payroll \$95,000; credit Cash \$95,000.
D. Debit Work in Process Inventory $\$ 70,000$; debit Factory Overhead $\$ 25,000$; credit Factory Payroll \$95,000.
E. Debit Work in Process Inventory $\$ 70,000$; debit Factory Overhead $\$ 25,000$; credit Cash $\$ 95,000$.
130. Portside Watercraft uses a job order costing system. During one month Portside purchased $\$ 153,000$ of raw materials on credit; issued materials to production of $\$ 164,000$ of which $\$ 24,000$ were indirect. Portside incurred a factory payroll of $\$ 95,000$, paid in cash, of which $\$ 25,000$ was indirect labor. Portside uses a predetermined overhead rate of $170 \%$ of direct labor cost. The journal entry to record the application of factory overhead to production is:
A. Debit Work in Process Inventory $\$ 55,800$; credit Factory Overhead $\$ 55,800$.
B. Debit Work in Process Inventory $\$ 161,500$; credit Factory Overhead $\$ 161,500$.
C. Debit Work in Process Inventory \$19,000; credit Factory Overhead \$119,000.
D. Debit Factory Overhead \$119,000; credit Work in Process Inventory \$119,000.
E. Debit Work in Process Inventory $\$ 95,000$; credit Factory Payroll $\$ 95,000$.
131. Copy Center pays an average wage of $\$ 12$ per hour to employees for printing and copying jobs, and allocates $\$ 18$ of overhead for each employee hour worked. Materials are assigned to each job according to actual cost. If Job M-47 used $\$ 350$ of materials and took 20 hours of labor to complete, what is the total cost that should be assigned to the job?
A. $\$ 590$
B. $\$ 600$
C. \$380
D. $\$ 950$
E. $\$ 710$
132. Copy Center pays an average wage of $\$ 12$ per hour to employees for printing and copying jobs, and allocates $\$ 18$ of overhead for each employee hour worked. Materials are assigned to each job according to actual cost. Jobs are marked up $20 \%$ above cost to determine the selling price. If Job $\mathrm{M}-47$ used $\$ 350$ of materials and took 20 hours of labor to complete, what is the selling price that should be assigned to the job?
A. $\$ 852$
B. $\$ 1,140$
C. $\$ 456$
D. $\$ 720$
E. $\$ 708$

## Matching Questions

133. Match the following terms with the appropriate definitions.

## 1. A source document that production

 managers use to request materials needed for manufacturing and that is used to assign materials costs to specific jobs or to overhead.2. A separate record maintained for each job in a job order costing system; it shows the costs of direct materials, direct labor, and overhead for each job.
3. The amount by which the overhead applied to jobs in a period with the predetermined overhead rate exceeds the actual overhead incurred in a period.
4. The production of products in response to special orders; also called customized production.
5. An asset account where costs are accumulated while jobs are being produced.
6. Records manufacturing activities using a perpetual inventory system.
7. The rate established prior to the beginning of a period that relates estimated overhead to an allocation factor such as estimated direct labor and is used to assign overhead cost to a job.
8. An asset account where costs of completed jobs reside until the jobs are delivered to customers.
9. A perpetual record that is updated each

Job order costing
system __

Cost accounting system ___

Overapplied
overhead

Work In Process Inventory ___

Predetermined
overhead rate
Finished Goods
Inventory ___

Materials
requisition $\qquad$

Materials ledger
card
Time ticket $\qquad$
time units of raw material are purchased and issued for use in production.
10. The amount by which actual overhead incurred in a period exceeds the overhead applied to jobs with the predetermined overhead rate.

## Underapplied

overhead $\qquad$
11. A source document that is used to report how much time an employee spent working on a job or on overhead activities and the labor costs to assign to jobs or overhead. $\qquad$

## Short Answer Questions

134. What is a cost accounting system? What are the two basic types of cost accounting systems?
135. Describe the purpose of a job cost sheet, and explain what information is found on the job cost sheet.
136. Explain how a service firm, such as an advertising agency, might use job order costing.
137. Describe how materials flow through a job order costing system, and identify the key documents in the system.
138. Describe the flow of the raw materials, both direct and indirect, through the inventory accounts from purchase to use.
139. Describe the flow of labor costs in a job order costing system, and identify the documents used in the system.
140. Describe the flow of the employee labor, both direct and indirect, through the inventory accounts.
141. Explain what a predetermined overhead rate is, how it is calculated, and why it is used.
142. Explain why the Factory Overhead account for a company may have a difference between the amount debited and credited at the end an accounting period before adjustment.
143. Briefly describe how manufacturing firms dispose of overapplied or underapplied factory overhead.

## Essay Questions

144. The Merker Manufacturing Company has the following job cost sheets on file. They represent jobs that have been worked on during April of the current year. This table summarizes information provided on each sheet:

| Number | Total Cost Incurred | Status of Job |
| :---: | ---: | :--- |
| 544 | $\$ 15,050$ | Finished and delivered |
| 545 | $\$ 22,400$ | Finished and delivered |
| 546 | $\$ 7,500$ | Finished and unsold |
| 547 | $\$ 4,300$ | Finished and delivered |
| 548 | $\$ 33,000$ | Unfinished |
| 549 | $\$ 62,000$ | Finished and unsold |
| 550 | $\$ 14,600$ | Unfinished |
| 551 | $\$ 22,200$ | Finished and delivered |
| 552 | $\$ 3,600$ | Finished and unsold |
| 553 | $\$ 1,000$ | Unfinished |

(a) What is the cost of goods sold for the month of April?
(b) What is the cost of the Work in Process inventory on April 30?
(c) What is the cost of the finished goods inventory on April 30?
145. The Luna Manufacturing Company has the following job cost sheets on file. They represent jobs that have been worked on during September of the current year. This table summarizes information provided on each sheet:

| Number | Total Cost Incurred | Status of Job |
| :---: | ---: | :--- |
| 951 | $\$ 4,200$ | Finished and delivered |
| 952 | $\$ 7,700$ | Unfinished |
| 953 | $\$ 9,300$ | Finished and unsold |
| 954 | $\$ 11,100$ | Finished and delivered |
| 955 | $\$ 3,000$ | Finished and unsold |
| 956 | $\$ 5,500$ | Finished and delivered |
| 957 | $\$ 35,000$ | Unfinished |
| 958 | $\$ 3,200$ | Finished and delivered |
| 959 | $\$ 500$ | Unfinished |
| 960 | $\$ 22,110$ | Unfinished |
| 961 | $\$ 7,200$ | Finished and delivered |
| 962 | $\$ 8,500$ | Unfinished |
| 963 | $\$ 11,200$ | Finished and unsold |

(a) What is the cost of the Work in Process inventory on September 30?
(b) What is the cost of the finished goods inventory on September 30?
(c) What is the cost of goods sold for the month of September?
146. Chung Corporation uses a job order costing system. Five jobs were worked on during the current year. The predetermined overhead rate is $20 \%$ of direct labor costs. The following cost information is available (all materials and time ticket information applies to direct costs):

| Job | Materials Requisitions | Time Tickets |
| :--- | ---: | ---: |
| 101 | $\$ 66,000$ | $\$ 32,000$ |
| 102 | $\$ 63,000$ | $\$ 74,000$ |
| 103 | $\$ 39,000$ | $\$ 50,000$ |
| 104 | $\$ 32,000$ | $\$ 36,000$ |
| 105 | $\$ 53,000$ | $\$ 68,000$ |

Part 1-Complete the job cost sheets for each job.

| Job No. 101 | Job No. 102 | Job No. 103 |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Materials | Materials |  | Materials |  |  |
| Labor |  | Labor |  | Labor |  |
| Overhead |  | Overhead |  | Overhead |  |
| Total Cost |  | Total Cost |  | Total Cost |  |
| Status | In Process | Status | Sold | Status | Finished |


| Job No. 104 |  |  | Job No. 105 |  |
| :--- | :--- | :--- | :--- | :---: |
| Materials |  | Materials |  |  |
| Labor |  | Labor |  |  |
| Overhead |  | Overhead |  |  |
| Total Cost |  | Total Cost |  |  |
| Status | Sold | Status | Finished |  |

Part 2-Identify the amounts of each of the following accounts at the end of the period
a. Work in Process $\qquad$
b. Finished Goods $\qquad$
c. Cost of Goods Sold $\qquad$
147. The following data relates to the Mass Company's first operating period. Calculate the total cost of goods sold for each product.

|  | Cost/unit |  | Units |  | Overhead rate <br> (Percent of |
| :---: | ---: | ---: | ---: | ---: | ---: |
| Product | Direct <br> Materials | Direct <br> Labor | Produced | Ending <br> Inventory | Direct Labor cost) |
| A | $\$ 10$ | $\$ 12$ | 215 | 115 | $60 \%$ |
| B | 8 | 15 | 330 | 180 | $40 \%$ |
| C | 14 | 10 | 250 | 200 | $80 \%$ |

148. Southwick Company uses a job order costing system. On November 1, \$15,000 of direct materials and $\$ 3,500$ of indirect materials were requisitioned for production. Prepare the general journal entries to record this requisition.
149. A company that uses a job order costing system incurred $\$ 10,000$ of factory payroll during May. Present the May 31 entry assuming $\$ 8,000$ is direct labor and $\$ 2,000$ is indirect labor.
150. Time tickets for factory employees during the month of August are summarized as follows:
151. Chumley Advertising Agency contracted with a company to prepare an ad campaign. Chumley uses a job order costing system. Chumley estimates that the job will take 140 designer hours at $\$ 90$ per hour and 85 staff hours at $\$ 45$ per hour. Chumley uses two overhead rates in applying overhead to jobs: Designer-related at \$100 per designer hour and staff-related at \$50 per staff hour. Determine the total estimated cost for this job.
152. KL Company uses a job order costing system. During the month of July, the following events occurred:
(a) Purchased raw materials on credit, \$32,000.
(b) Raw materials requisitioned: $\$ 25,800$ as direct materials and $\$ 10,500$ indirect materials.
(c) Assigned the factory payroll totaling $\$ 37,700$, which includes $\$ 8,200$ indirect labor, to jobs and overhead.

Make the necessary journal entries to record the above transactions and events.
153. EXP, Inc. had the following activities during its most recent period of operations:
(a) Purchased raw materials on account for $\$ 140,000$ (both direct and indirect materials are recorded in the Raw Materials Inventory account).
(b) Issued raw materials to production of $\$ 130,000$ ( $80 \%$ direct and $20 \%$ indirect).
(c) Incurred factory labor costs of \$250,000; allocated the factory labor costs to production (70\% direct and $30 \%$ indirect).
(d) Incurred factory utilities costs of $\$ 20,000$; this amount is still payable.
(e) Applied overhead at $80 \%$ of direct labor costs.
(f) Recorded factory depreciation, \$22,000.

Prepare journal entries to record the above transactions.
154. Lock Production Co. applies factory overhead to production on the basis of direct labor costs. Assume that at the beginning of the current year the company estimated that direct material costs would be $\$ 178,800$, direct labor costs would be $\$ 154,000$, and factory overhead costs would be $\$ 231,000$.
(1) If the $\$ 28,000$ cost of Lock's Work in Process inventory included $\$ 5,200$ of direct labor cost, what amount of direct materials cost was included?
(2) If $\$ 8,100$ of the company's $\$ 34,300$ finished goods inventory was direct materials cost, determine the direct labor cost and factory overhead cost of the finished goods inventory.
155. Prepare journal entries to record the following transactions and events for April using a job order costing system.
(a) Purchased raw materials on credit, \$69,000.
(b) Raw materials requisitioned: $\$ 26,000$ direct and $\$ 5,400$ indirect.
(c) Factory payroll totaled $\$ 46,000$, including $\$ 9,500$ indirect labor.
(d) Paid other actual overhead costs totaling $\$ 14,500$ cash.
(e) Applied overhead totaling \$28,200.
(f) Finished and transferred jobs totaling \$77,500.
(g) Jobs costing $\$ 58,800$ were sold on credit for $\$ 103,000$.
156. A company's ending inventory of finished goods has a cost of $\$ 45,000$ and consists of 750 units. If the overhead applicable to these goods is $\$ 8,400$, and overhead is applied at the rate of $60 \%$ of direct labor, what is the cost of the direct materials used to produce these units?
157. The production of one unit of Product BJM used $\$ 27.50$ of direct materials and $\$ 21.00$ of direct labor. The unit sold for $\$ 76.00$ and was assigned overhead at a rate of $30 \%$ of labor costs. What is the gross profit per unit on its sale?
158. A company uses a job order costing system and applies overhead on the basis of direct labor cost. A summary of the company's Work in Process Inventory account for December appears below.

| Work in Process |  |  |  |  |  |
| :--- | :--- | :---: | ---: | ---: | ---: |
| Date | Explanation | PR | Debit | Credit | Balance |
| Dec. 1 |  |  |  |  | 73,800 |
| Dec. | Direct Materials | G-20 | 235,800 |  | 309,600 |
| Dec. | Direct Labor | G-20 | 117,000 |  | 426,600 |
| Dec. | Factory Overhead | G-20 | 187,200 |  | 613,800 |
| Dec. | Job No. 5 completed | G-8 |  | 90,900 | 522,900 |
| Dec. | Job No. 6 completed | G-10 |  | 131,400 | 391,500 |
| Dec. | Job No. 7 completed | G-12 |  | 73,800 | 317,700 |
| Dec. 31 | Job No. 8 completed | G-15 |  | 168,300 | 149,400 |

Fill in the blanks for the following:
(1) The total cost of the direct materials, direct labor, and factory overhead applied in the December 31 Work in Process inventory is $\qquad$ .
(2) The company's overhead application rate is $\qquad$ \%.
(3) Job No. 6 had $\$ 26,550$ of direct labor cost. Therefore, the job must have had $\qquad$ of direct materials cost.
(4) Job No. 8 had $\$ 73,998$ of direct materials cost. Therefore, the job must have had $\qquad$ of factory overhead cost.
159. Heintz Company's job order costing system applies overhead based on direct labor costs. The company's manufacturing costs for the current year were: direct materials, \$108,000; direct labor, $\$ 144,000$; and factory overhead, $\$ 36,000$. At year-end, the total cost of Work in Process is $\$ 38,000$, which includes $\$ 12,000$ of direct labor cost. What amount of direct material cost is included in the ending Work in Process inventory?
160. MOB Corp. maintains an internet-based general ledger. Overhead is applied on the basis of direct labor costs. Its bookkeeper accidentally deleted most of the entries that had been recorded for January. A printout of the general ledger (in T-account form) showed the following:

| Raw Materials Inventory |  |  |  | Work in Process Inventory |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DR |  | CR |  | DR |  | CR |  |
| Bal. 1/1 | 10,000 |  |  | Bal. 1/1 | 4,000 | g) |  |
| a) |  | b) |  | c) |  |  |  |
|  |  |  |  | d) |  |  |  |
|  |  |  |  | e) |  |  |  |
|  | 17,500 |  |  | f) |  |  |  |
| Accounts Payable |  |  |  | Finished Goods Inventory |  |  |  |
| DR |  | CR |  | DR |  | CR |  |
| h) |  | Bal. 1/1 | 5,000 | j) |  | 1) |  |
|  |  | i) |  | k) |  |  |  |
|  |  | Bal. 1/31 | 9,000 | Bal. 1/31 | 15,000 |  |  |
| Factory Overhead |  |  |  | Cost of Goods Sold |  |  |  |
| DR |  | CR |  | DR |  | CR |  |
| m) |  | n) |  | o) |  |  |  |

A review of the prior year's financial statements, the current year's budget, and January's source documents produced the following information:
(1) Accounts Payable is used for raw material purchases only. January purchases were $\$ 49,000$.
(2) Factory overhead costs for January were $\$ 17,000$ none of which is indirect materials.
(3) The January 1 balance for finished goods inventory was $\$ 10,000$.
(4) There was a single job in process at January 31 with a cost of $\$ 2,000$ for direct materials and \$1,500 for direct labor.
(5) Total cost of goods manufactured for January was $\$ 90,000$.
(6) All direct laborers earn the same rate (\$13/hour). During January, 2,500 direct labor hours were worked.
(7) The predetermined overhead rate is based on direct labor costs. Budgeted (expected)
overhead for the year is \$195,000 and budgeted (expected) direct labor is \$390,000.

Fill in the missing amounts a through o above in the T -accounts above.
161. Chen Service applied overhead on the basis of direct labor costs during the current year. Overhead applied was $\$ 16,500$. Actual overhead incurred was $\$ 17,200$.
(a) Prepare a journal entry to remove this difference assuming that it is not material.
(b) Instead, assume actual overhead incurred was $\$ 24,000$. Describe (without computations) the alternative procedure that Chen might assuming this difference is material.
162. Calwell Corp. uses a job order costing system. Four jobs were started during the current year. The following is a record of the costs incurred:

| Job \# | Material <br> Used | Direct Labor <br> Used | Direct Labor <br> Hours Used |
| :---: | ---: | ---: | ---: |
| 1010 | $\$ 45,000$ | $\$ 72,000$ | 8,000 |
| 1011 | 59,000 | 77,000 | 7,000 |
| 1012 | 35,000 | 30,000 | 3,000 |
| 1013 | 26,000 | 40,000 | 5,000 |

Actual overhead costs were $\$ 55,800$. The predetermined overhead rate is $\$ 2.40$ per direct labor hour. During the year, Jobs 1010, 1012, and 1013 were completed. Also, Jobs 1010 and 1013 were sold for $\$ 387,000$. Assuming that this is Calwell's first year of operations:
(a) Make the necessary journal entries to charge the costs to the jobs started and to record the completion and sale of finished jobs.
(b) Calculate the balance in the Work in Process Inventory, Finished Goods Inventory, and Factory Overhead accounts. Does the Factory Overhead account balance indicate an over- or underapplied overhead?
163. The following information is available for the Annum Corporation for the current year:

| Cost of goods sold | $\$ 292,000$ |
| :--- | ---: |
| Depreciation of factory equipment | 25,200 |
| Direct labor | 64,750 |
| Finished goods inventory, Beginning-year | 45,000 |
| Factory insurance | 11,200 |
| Factory utilities | 16,800 |
| Goods transferred from Work in Process Inventory to Finished Goods <br> Inventory | 285,150 |
| Indirect labor | 8,400 |
| Raw materials inventory, Beginning-year | 4,200 |
| Raw materials purchased | 116,200 |
| Raw materials used in production (includes $\$ 7,000$ of indirect <br> materials) | 121,800 |
| Rent on factory building | 22,400 |

Annum Company uses a predetermined overhead rate of $150 \%$ of direct labor cost. Prepare journal entries for the following transactions and events:
(a) Purchase of raw materials on account.
(b) Assignment of materials costs to Work in Process Inventory and Factory Overhead.
(c) Assignment of Factory Payroll to Work in Process Inventory and Factory Overhead.
(d) Recording of other factory overhead. Assume that all items other than depreciation are paid in cash.
(e) Assignment of Factory Overhead to Work in Process Inventory.
(f) Transfer of goods completed to Finished Goods Inventory.
(g) Recording cost of goods sold.
(h) Assignment of over- or underapplied overhead to Cost of Goods Sold.
164.A company's predetermined overhead rate is applied at $130 \%$ of direct labor cost. How much overhead would be allocated to Job No. 105 if it required total direct labor costs of $\$ 60,000$ ?
165.A company's predetermined overhead rate is applied at $150 \%$ of direct materials cost. How much overhead would be allocated to Job No. 325 if the total direct materials costs was $\$ 40,000$ ?
166. Selected information from the budget of the Singh Corp. at the beginning of the year follows:

| Estimated factory overhead | $\$ 132,000$ |  |
| :--- | ---: | :--- |
| Estimated direct labor hours | 55,000 | hours |
| Estimated machine hours | 41,250 | hours |
| Estimated direct labor cost | $\$ 825,000$ |  |
| Actual factory overhead incurred during the year | $\$ 144,000$ |  |

Calculate the predetermined overhead rate if the company uses the following as a basis:
(a) Direct labor hours.
(b) Direct labor cost.
(c) Machine hours.
167. A manufacturing company uses an overhead rate based on direct labor cost. The company's Work in Process Inventory account has a $\$ 15,000$ debit balance after all posting is completed, and the cost sheet of the one job still in process shows direct material costs of \$6,600 and direct labor costs of $\$ 3,000$. What is the company's overhead application rate?
168. Nutley Company uses a job order cost system and last period incurred $\$ 70,000$ of overhead and $\$ 100,000$ of direct labor. Nutley estimates that its overhead next period will be $\$ 65,000$. The company also expects to incur $\$ 100,000$ of direct labor. If Nutley bases its overhead applied on direct labor cost, what should be the overhead rate for the next period?
169. A company's job order costing system applies overhead based on direct labor cost. The company's estimated production costs for were: direct labor, $\$ 57,600$; direct materials, $\$ 76,800$; and factory overhead, $\$ 9,600$. Calculate the company's overhead rate.
170. The job cost sheet for Job number 83-421 includes the following information:

DIRECT MATERIALS:

7/12 Requisition R88-566: 20 units @ \$3.50 per unit
7/13 Requisition R88-576: 18 units @ \$5.00 per unit
7/13 Requisition R88-578: 4 units @ $\$ 25.00$ per unit
7/14 Requisition R88-591: 40 units @ $\$ 1.25$ per unit

DIRECT LABOR:

7/12 Employee 19: 8 hours @ \$9.00 per hour
7/13 Employee 19: 6 hours @ \$9.00 per hour
7/13 Employee 37: 6 hours @ $\$ 7.00$ per hour
7/14 Employee 19: 5 hours @ $\$ 9.00$ per hour
7/14 Employee 92: 5 hours @ $\$ 11.00$ per hour

FACTORY OVERHEAD: Assigned at 150\% of direct labor cost.

What is the total cost of Job number 83-421?
171. The following calendar year information about the Tchulahota Corporation is available on December 31:

| Advertising expense | $\$ 28,800$ |
| :--- | ---: |
| Depreciation of factory <br> equipment | 42,320 |
| Depreciation of office <br> equipment | 10,800 |
| Direct labor | 142,600 |
| Factory utilities | 35,650 |
| Interest expense | 6,650 |
| Inventories, January 1: | 3,450 |
| Raw materials | 17,250 |
| Work in Process | 35,600 |
| Finished goods | 2,300 |
| Inventories, December 31: | 20,700 |
| Raw materials | 31,050 |
| Work in Process | 132,450 |
| Finished goods | 41,400 |
| Raw materials purchases | 51,750 |
| Rent on factory building | 16,500 |
| Indirect labor |  |
| Sales commissions |  |

The company applies overhead on the basis of $125 \%$ of direct labor costs. Calculate the amount of over- or underapplied overhead.
172. The predetermined overhead rate for Foster, Inc., is based on estimated direct labor costs of $\$ 400,000$ and estimated factory overhead of $\$ 500,000$. Actual costs incurred were:

| Direct materials | $\$ 240,000$ |
| :--- | ---: |
| Direct labor | 410,000 |
| Indirect materials | 55,000 |
| Indirect labor | 125,000 |
| Sales commissions | 55,000 |
| Factory depreciation | 170,000 |
| Property taxes, factory | 15,000 |
| Factory utilities | 35,000 |
| Advertising | 62,500 |
| Factory equipment rental | 110,000 |

(a) Calculate the predetermined overhead rate and calculate the overhead applied during the year.
(b) Determine the amount of over- or underapplied overhead and prepare the journal entry to eliminate the over- or underapplied overhead assuming that it is not material in amount.
173. A company charged the following amounts of overhead to jobs during the current year: $\$ 12,000$ to jobs still in process, $\$ 42,000$ to jobs completed but not sold, and $\$ 66,000$ to jobs finished and sold. At year-end, the company's Factory Overhead account has a credit balance of $\$ 9,000$, which is not a material amount. What entry (if any) should the company make at year-end related to this overhead balance?
174. Oddley Corp. uses a job order costing system. The following is selected information pertaining to costs applied to jobs during the year:

Jobs still in process at the end of the year:
$\$ 167,000$, which includes $\$ 65,000$ direct labor costs.
Jobs finished and sold during the year:
$\$ 395,000$, which includes $\$ 172,000$ direct labor costs.
Jobs finished but unsold during the year:
$\$ 103,000$, which includes $\$ 38,000$ direct labor costs.

Oddley Corp.'s predetermined overhead rate is $60 \%$ of direct labor cost. At the end of the year, the company's records show that $\$ 189,000$ of factory overhead has been incurred.
(a) Determine the amount of overapplied or underapplied overhead.
(b) Prepare the necessary journal entry to close the Factory Overhead account assuming that any remaining balance is not material.
175. Taylor Corp. uses a job order costing system and worked only on Job 101 during the current period. Job 101 was sold for $\$ 460,000$. The following information pertains to costs incurred for Job 101.

| Direct Materials | $\$ 90,000$ |
| :--- | ---: |
| Indirect Materials | $\$ 30,000$ |
| Direct Labor | $\$ 130,000$ |
| Indirect Labor | $\$ 75,000$ |
| Depreciation of <br> Machinery | $\$ 10,000$ |
| Factory Supplies | $\$ 8,000$ |
| Overhead Application <br> Rate | $90 \%$ of direct <br> labor |

Determine the amount of gross profit earned on Job 101.
176. At the end of June, the job cost sheets for Kennedy Manufacturing show the following total costs accumulated on three custom jobs.

|  | Job <br> $\mathbf{2 0 3}$ | Job <br> $\mathbf{2 0 4}$ | Job <br> $\mathbf{2 0 5}$ |
| :--- | ---: | ---: | ---: |
| Direct <br> materials | $\$ 32,000$ | $\$ 47,000$ | $\$ 43,000$ |
| Direct labor | 18,000 | 22,000 | 25,000 |
| Overhead | 26,100 | 31,900 | 36,250 |

Job 203 was started in production in May and the following costs were assigned to it in May: direct materials, $\$ 12,000$; direct labor, $\$ 6,000$; and overhead $\$ 8,700$. Jobs 204 and 205 are started in June. Overhead cost is applied with a predetermined rate based on direct labor cost. Jobs 203 and 204 are finished in June, and Job 205 will be finished in July. No raw materials are used indirectly in June. Using this information, answer the following questions assuming the company's predetermined overhead rate did not change.
a. What is the cost of the raw materials requisitioned in June for each of the three jobs?
b. How much direct labor cost is incurred during June for each of the three jobs?
c. What predetermined overhead rate is used during June?
d. How much total cost is transferred to finished goods during June?
177. Booth Manufacturing uses a job order costing system that charges overhead to jobs on the basis of direct material cost. At year-end, the Work in Process Inventory account shows the following.

| Date | Explanation | Debit | Credit | Balance |
| ---: | :--- | ---: | ---: | ---: |
| Dec. 31 | Direct materials cost | 980,000 |  | 980,000 |
| 31 | Direct labor cost | 320,000 |  | $1,300,000$ |
| 31 | Overhead costs | 637,000 |  | $1,937,000$ |
| 31 | To finished goods |  | $1,818,000$ | 119,000 |

a. Determine the overhead rate used (based on direct material cost).
b. Only one job remained in the Work in Process inventory at December 31. Its direct materials cost is $\$ 60,000$. How much direct labor cost and overhead cost are assigned to it?
178. Franklin Manufacturing uses a job order costing system that charges overhead to jobs on the basis of direct labor cost. Franklin used the following cost predictions: overhead costs $\$ 1,285,750$, and direct labor costs of $\$ 695,000$. At year-end, the company's records show that actual overhead costs for the year are $\$ 1,278,800$, and actual direct labor costs are $\$ 692,000$.
a. Determine the predetermined overhead rate for the year.
b. Compute the amount of overapplied or underapplied overhead.
c. Prepare the adjusting entry to allocate the over- or underapplied overhead assuming the amount if immaterial.
179. Drop Anchor takes special orders to manufacture sail boats for high end customers. Complete the job cost sheets for Drop Anchor for September based on the following information. Prepare journal entries to record the transactions as well as post to the job cost sheets.
a. Purchased raw materials on credit, \$145,000.
b. Materials requisitions: Job 240, \$48,000; Job 241, \$36,000; Job 242, \$42,000; indirect materials were $\$ 12,000$.
c. Time tickets used to charge labor to jobs: Job 240, \$40,000; Job 241, \$30,000; Job 242, \$35,000, indirect labor is $\$ 25,000$.
d. The company incurred the following additional overhead costs: depreciation of factory building, $\$ 70,000$; depreciation of factory equipment, $\$ 60,000$; expired factory insurance, $\$ 10,000$; utilities and maintenance cost of $\$ 20,000$ were paid in cash.
e. Applied overhead to all three jobs. The predetermined overhead rate is $190 \%$ of direct labor cost.
f. Transferred jobs 240 and 242 to Finished Goods Inventory.
g. Sold job 240 for $\$ 300,000$ for cash.
h. Closed the under- or over-applied overhead account balance.

| Job Cost Sheets | $\mathbf{2 4 0}$ | $\mathbf{2 4 1}$ | $\mathbf{2 4 2}$ | Total |
| :--- | :--- | :--- | :--- | :--- |
| For the current <br> month |  |  |  |  |
| Direct materials |  |  |  |  |
| Direct labor |  |  |  |  |
| Applied overhead |  |  |  |  |
| Total costs |  |  |  |  |

180. The predetermined overhead rate for Shilling Manufacturing is based on estimated direct labor costs of $\$ 350,000$ and estimated factory overhead of $\$ 770,000$. Actual costs incurred were:

| Direct materials | $\$ 475,000$ |
| :--- | ---: |
| Direct labor | 347,000 |
| Indirect materials | 78,000 |
| Indirect labor | 143,500 |
| Sales commissions | 150,000 |
| Factory depreciation | 260,000 |
| Property taxes, factory | 35,000 |
| Factory utilities | 65,000 |
| Advertising | 62,500 |
| Factory supervision | 185,000 |

a. Calculate the predetermined overhead rate and calculate the overhead applied during the year.
b. Determine the amount of over- or underapplied overhead and prepare the journal entry to eliminate the over- or underapplied overhead assuming that it is not material in amount.

Fill in the Blank Questions
181. A $\qquad$ accounting system records production activities using a perpetual inventory system.
$\qquad$
182. $\qquad$ or customized production, produces products in response to customer orders.
$\qquad$
183.A $\qquad$ is a separate record maintained for each job.
$\qquad$
184. The collection of job cost sheets for all jobs in process makes up the subsidiary ledger controlled by the $\qquad$ inventory.
$\qquad$
185. In a job order costing system, raw materials requisitioned as direct materials are debited to
$\qquad$ ; indirect materials are debited to $\qquad$ -
186. When factory payroll is assigned to specific jobs, $\qquad$ is debited.
$\qquad$
187. When factory payroll for indirect labor is assigned, $\qquad$ is debited.
$\qquad$
188. A $\qquad$ is calculated by relating total estimated factory overhead to an allocation factor such as total estimated direct labor cost, and is used to allocate factory overhead to specific jobs.
$\qquad$
189. When the actual overhead incurred during an accounting period is more than the overhead applied to jobs, the overhead is said to be $\qquad$ -.
190. Immaterial amounts of overapplied overhead should be $\qquad$ to the $\qquad$ account when closed.

## Chapter 02 Job Order Costing and Analysis Answer Key

## True / False Questions

1. Cost accounting systems accumulate costs and then assigns them to products or services.

## TRUE

AACSB: Communication
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-C1 Describe important features of job order production.
Topic: Job Order Costing
2. A company that uses a cost accounting system normally has only two inventory accounts: Finished Goods Inventory and Work in Process Inventory.

## FALSE

AACSB: Communication
AICPA: BB Industry
AICPA. FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-C1 Describe important features of job order production.
Topic: Job Order Costing
3. Cost accounting information is helpful to management for pricing decisions but has no effect on controlling costs.

## FALSE

AACSB: Communication
A/CPA: BB Industry
A/CPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Understana
Difficulty: 2 Medium
Learning Objective: 02-C1 Describe important features of job order production.
Topic: Job Order Costing
4. There are two basic types of cost accounting systems: job order costing and periodic costing.

## FALSE

AACSB: Communication
AICPA. BB Industry
A/CPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-C1 Describe important features of job order production.
Topic: Job Order Costing
5. A company that produces a large number of standardized units would normally use a job order costing system.

FALSE
6. Job order production systems would be appropriate for companies that produce custom homes, specialized equipment, and special computer systems.

## TRUE

AACSB: Communication
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-C1 Describe important features of job order production.
Topic: Job Order Costing
7. Job order production systems would be appropriate for companies that produce compact disks or disposable cameras.

## FALSE

AACSB: Communication
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-C1 Describe important features of job order production.
Topic: Job Order Costing
8. A job order costing system would be appropriate for a manufacturer of automobile tires.

## FALSE

9. Job order production systems would be appropriate for companies that produce training films for a specific customer or custom-made furniture to be used in a new five-star resort hotel.

## TRUE

AACSB: Communication
AICPA: BB Industry
AICPA: FN Measurement
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-C1 Describe important features of job order production.
Topic: Job Order Costing
10. A company's file of job cost sheets jobs not yet completed equals the balance in the Finished Goods Inventory account.

## FALSE

AACSB: Communication
AICPA. BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-C2 Explain job cost sheets and how they are used in job order costing.
Topic: Job Cost Sheet

## 02-87

11. The direct materials section of a job cost sheet shows the materials costs assigned to a job, but the direct labor section only shows the total hours of labor allocated to the job.

## FALSE

AACSB: Communication
AICPA: BB Industry
A/CPA. FN Measurement
Accessibility: Keyboard Navigation
Blooms: Understana
Difficulty: 2 Medium
Learning Objective: 02-C2 Explain job cost sheets and how they are used in job order costing.
Topic: Job Cost Sheet
12. The collection of cost sheets for unfinished jobs makes up a subsidiary ledger controlled by the Work in Process Inventory account in the general ledger.

## TRUE

AACSB: Communication
AICPA: BB Industry
AICPA: FN Measurement
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-C2 Explain job cost sheets and how they are used in job order costing.
Topic: Job Cost Sheet
13. A job cost sheet is useful for developing financial accounting numbers but does not contain information that is useful for managing the production process.

## FALSE

AACSB: Communication
A/CPA: BB Industry
AICPA. FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
14. Job cost sheets are used to track all of the costs assigned to a job, including direct materials, direct labor, overhead, and all selling and administrative costs.

## FALSE

AACSB: Communication
A/CPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-C2 Explain job cost sheets and how they are used in job order costing.
Topic: Job Cost Sheet
15. When a job is finished, its job cost sheet is completed and moved from the file of jobs in process to the file of finished jobs that are yet to be delivered to customers.

## TRUE

AACSB: Communication
A/CPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-C2 Explain job cost sheets and how they are used in job order costing.
Topic: Job Cost Sheet
16. The file of job cost sheets for completed but undelivered jobs equals the balance in the Work in Process Inventory account.

## FALSE

AACSB: Communication
A/CPA: BB Industry
A/CPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-C2 Explain job cost sheets and how they are used in job order costing.
Topic: Job Cost Sheet
17. Both direct and indirect labor costs are recorded on the individual job cost sheets.

## FALSE

> AACSB: Communication
> AICPA: BB Industry
> AICPA: FN Measurement
> Blooms: Remember
> Difficulty: 1 Easy

Learning Objective: 02-C2 Explain job cost sheets and how they are used in job order costing.
Topic: Job Cost Sheet
18. Service firms, unlike manufacturing firms, should only use actual costs when determining a selling price for their services.

FALSE
19. Job order costing is applicable to manufacturing firms only and not service firms.

## FALSE

AACSB: Communication
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-A1 Apply job order costing in pricing services.
Topic: Pricing for Services
20. The cost of all direct materials issued to production is debited to Work in Process Inventory.

## TRUE

AACSB: Analytical Thinking
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-P1 Describe and record the flow of materials costs in job order costing.
Topic: Materials Cost Flows and Documents
21. A materials requisition is a source document used by production managers to request materials for production and also used to assign materials costs to specific jobs or to overhead.

## TRUE

22. When materials are used as indirect materials, their cost is debited to the Factory Overhead account.

## TRUE

AACSB: Analytical Thinking
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-P1 Describe and record the flow of materials costs in job order costing.
Topic: Materials Cost Flows and Documents
23. A materials requisition is a source document used by materials managers of a manufacturing company to order raw materials from suppliers; it serves the same purpose as a purchase order in a merchandising company.

## FALSE

AACSB: Analytical Thinking A/CPA: BB Industry

A/CPA. FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-P1 Describe and record the flow of materials costs in job order costing.
Topic: Materials Cost Flows and Documents
24. Materials requisitions and time tickets are cost accounting source documents.

## TRUE

AACSB: Communication
AICPA: BB Industry
A/CPA. FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-P1 Describe and record the flow of materials costs in job order costing. Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing.

Topic: Labor Cost Flows and Documents Topic: Materials Cost Flows and Documents
25. A time ticket is a source document used by an employee to record the number of hours worked on a particular job during the work day.

## TRUE

AACSB: Communication
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing.
Topic: Labor Cost Flows and Documents
26. A time ticket is a source document that an employee uses to report how much direct and indirect labor was performed for a job and is used to determine the amount of direct labor to charge to the job and the amount of indirect labor to charge to factory overhead.

## FALSE

27. A time ticket is a source document an employee uses to record the number of hours at work and that is used each pay period to determine the total labor cost.

## FALSE

AACSB: Communication
AICPA: BB Industry
A/CPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing.
Topic: Labor Cost Flows and Documents
28. A time ticket is a source document used by an employee to record the total number of hours worked and serves as a source document for entries to record labor costs.

## TRUE

AACSB: Communication
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy

Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing.
Topic: Labor Cost Flows and Documents
29. When time ticket information is entered into the accounting system, the journal entry is a debit to Factory Payroll and a credit to Work in Process Inventory.

## FALSE

AACSB: Analytical Thinking
A/CPA: BB Industry
A/CPA. FN Measurement
Accessibility: Keyboard Navigation
Blooms: Understana
Difficulty: 2 Medium
Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing. Topic: Labor Cost Flows and Documents
30. The predetermined overhead rate is used to allocate overhead cost to jobs.

## TRUE

AACSB: Communication
AICPA. BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing.
Topic: Overhead Cost Flows and Documents
31. Factory overhead is often collected and summarized in a subsidiary factory overhead ledger.

## TRUE

AACSB: Communication
A/CPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
32. Predetermined overhead rates are calculated at the end of the accounting period once the actual amount of factory overhead is known.

## FALSE

AACSB: Communication
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing. Topic: Overhead Cost Flows and Documents
33. Predetermined overhead rates are necessary because cost accountants use periodic inventory systems.

## FALSE

AACSB: Analytical Thinking
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Understana
Difficulty: 2 Medium
Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing.
Topic: Overhead Cost Flows and Documents
34. The predetermined overhead rate based on direct labor cost is the ratio of estimated overhead cost to estimated direct labor cost for the period.

## TRUE

AACSB: Analytical Thinking
35. In a job order costing system, indirect labor costs are debited to the Factory Overhead account.

## TRUE

AACSB: Analytical Thinking AICPA: BB Industry AICPA: FN Measurement

Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing.
Topic: Overhead Cost Flows and Documents
36. Since a predetermined overhead rate is established before a period begins, this rate is revised many times during the period to compensate for inaccurate estimates previously made.

## FALSE

AACSB: Analytical Thinking
A/CPA: BB Industry
A/CPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Understana
Difficulty: 2 Medium
Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing.
Topic: Overhead Cost Flows and Documents

## 02-97

37. Under a job order costing system, individual jobs are always charged with actual overhead costs when they are transferred to finished goods.

## FALSE

AACSB: Analytical Thinking
A/CPA: BB Industry
A/CPA. FN Measurement
Accessibility: Keyboard Navigation
Blooms: Understana
Difficulty: 2 Medium
Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing.
Topic: Overhead Cost Flows and Documents
38. Actual factory overhead incurred in a job costing system is debited to a Factory Overhead general ledger account and credited to various other accounts.

## TRUE

AACSB: Analytical Thinking
AICPA: BB Industry
A/CPA. FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember Difficulty: 1 Easy

Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing. Topic: Overhead Cost Flows and Documents
39. Direct materials and direct labor are examples of costs that are debited to the Factory Overhead account in a job costing system.

## FALSE

40. Overapplied overhead is the amount by which actual overhead cost exceeds the overhead applied to products during the period.

## TRUE

AACSB: Analytical Thinking
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-P4 Determine adjustments for overapplied and underapplied factory overhead.
Topic: Underapplied or Overapplied Overheaa
41. In a job order costing system, any immaterial underapplied overhead at the end of the period can be charged entirely to Cost of Goods Sold.

## TRUE

AACSB: Analytical Thinking
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-P4 Determine adjustments for overapplied and underapplied factory overhead.
Topic: Underapplied or Overapplied Overheaa
42. If actual overhead incurred during a period exceeds applied overhead, the difference will be a credit balance in the Factory Overhead account at the end of the period.

## FALSE

AACSB: Analytical Thinking
A/CPA: BB Industry
A/CPA. FN Measurement
Accessibility: Keyboard Navigation
Blooms: Understana
Difficulty: 2 Medium
Learning Objective: 02-P4 Determine adjustments for overapplied and underapplied factory overhead.
Topic: Underapplied or Overapplied Overheaa
43. The Factory Overhead account will have a credit balance at the end of a period if overhead applied during the period is greater than the overhead incurred.

## TRUE

AACSB: Analytical Thinking
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Understana
Difficulty: 2 Medium
Learning Objective: 02-P4 Determine adjustments for overapplied and underapplied factory overhead. Topic: Underapplied or Overapplied Overheaa
44. Material amounts of under- or overapplied factory overhead are always closed entirely to Cost of Goods Sold at the end of an accounting period.

## FALSE

45. Underapplied overhead is the amount by which overhead applied to jobs using the predetermined overhead rate exceeds the overhead incurred during a period.

## FALSE

AACSB: Analytical Thinking
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Understana
Difficulty: 2 Medium
Learning Objective: 02-P4 Determine adjustments for overapplied and underapplied factory overhead.
Topic: Underapplied or Overapplied Overheaa
46. Overapplied overhead is the amount by which overhead applied to jobs using the predetermined overhead rate exceeds the overhead incurred during a period.

## TRUE

AACSB: Analytical Thinking
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Understana
Difficulty: 2 Medium
Learning Objective: 02-P4 Determine adjustments for overapplied and underapplied factory overhead.
Topic: Underapplied or Overapplied Overheaa
47. Overapplied or underapplied overhead should be removed from the Factory Overhead account at the end of each accounting period.

## TRUE

AACSB: Analytical Thinking
A/CPA: BB Industry
A/CPA. FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-P4 Determine adjustments for overapplied and underapplied factory overhead.
Topic: Underapplied or Overapplied Overheaa
48. If overhead is underapplied, it means that individual jobs have not been charged enough during the year and the cost of goods sold reported is too low.

## TRUE

AACSB: Analytical Thinking
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing. Topic: Overhead Cost Flows and Documents
49. The schedule of cost of goods manufactured for a job costing system includes total actual factory overhead.

## FALSE

50. Period costs for a manufacturing company, such as selling and administrative expenses, are recorded directly to Work In Process Inventory when they are incurred.

## FALSE

AACSB: Communication
A/CPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing.
Topic: Overhead Cost Flows and Documents
51. Manufacturing costs incurred for jobs completed during an accounting period can bypass the inventory accounts on the balance sheet and be recorded directly in expense accounts.

## FALSE

AACSB: Communication
AICPA: BB Industry
A/CPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-C1 Describe important features of job order production.
Topic: Job Order Costing

## Multiple Choice Questions

52. Cost accounting systems used by manufacturing companies are based on the:
A. Periodic inventory system.
B. Perpetual inventory system.
C. Finished goods inventories.
D. Weighted average inventories.
E. LIFO inventory system.

AACSB: Communication
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-C1 Describe important features of job order production.
Topic: Job Order Costing
53. A system of accounting for production operations that produces timely information about inventories and manufacturing costs per unit of product is a:
A. Finished goods accounting system.
B. General accounting system.
C. Manufacturing accounting system.
D. Cost accounting system.
E. Production accounting system.
54. Job order costing systems normally use:
A. Periodic inventory systems.
B. Perpetual inventory systems.
C. Real inventory systems.
D. General inventory systems.
E. Any inventory systems is acceptable.

AACSB: Communication
A/CPA: BB Industry
A/CPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-C1 Describe important features of job order production.
Topic: Job Order Costing
55. In comparison to a general accounting system, a cost accounting system for a manufacturing company places an emphasis on:
A. Periodic inventory counts.
B. Total costs.
C. Continually updating costs of materials, work in process, and finished goods inventories.
D. Products and average costs.
E. Large volume operations involving standardized products.
56. Features of a job costing system include all but which of the following:
A. Diversity of products produced.
B. Mass production.
C. Heterogeneity.
D. Customization.
E. Separate manufacturing from other products.

AACSB: Communication
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Understana
Difficulty: 1 Easy
Learning Objective: 02-C1 Describe important features of job order production.
Topic: Job Order Costing
57. The two basic types of cost accounting systems are:
A. Job order costing and perpetual costing.
B. Job order costing and customized product costing.
C. Job order costing and customized service costing.
D. Job order costing and process costing.
E. Job order costing and periodic costing

AACSB: Communication
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
58. The production activities for a customized product represent $a(n)$ :
A. Operation.
B. Job.
C. Unit.
D. Pool.
E. Process.

AACSB: Communication
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-C1 Describe important features of job order production.
Topic: Job Order Costing
59. A job order costing system would best fit the needs of a company that makes:
A. Shoes and apparel.
B. Paint.
C. Cement.
D. Custom machinery.
E. Pencils and erasers.

AACSB: Analytical Thinking
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Understana
60. Job order production is also known as:
A. Mass production.
B. Process production.
C. Unit production.
D. Customized production.
E. Standard costing.

AACSB: Communication
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-C1 Describe important features of job order production.
Topic: Job Order Costing
61. Omega Contractors manufactures each house to customer specifications. It most likely would use:
A. Process costing.
B. A periodic inventory system.
C. Unique costing.
D. Job order costing.
E. Activity-based costing.
62. A type of production that yields customized products or services for each customer is called:
A. Customer orientation production.
B. Job order production.
C. Just-in-time production.
D. Job lot production.
E. Process production.

AACSB: Analytical Thinking
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Understana
Difficulty: 2 Medium
Learning Objective: 02-C1 Describe important features of job order production.
Topic: Job Order Costing
63. A company that makes which of the following types of products would best be suited for a job costing system?
A. Fruit juice
B. Bathing suits
C. Snack chips
D. Compact discs
E. Custom jewelry
64. The target cost for a job using job costing is calculated as:
A. direct costs + desired profit
B. direct costs - desired profit
C. expected selling price - direct costs
D. expected selling price - desired profit
E. expected selling price + desired profit
65. A job order production system would be appropriate for a company that produces which one of the following items?
A. A landscaping design for a new hospital.
B. Seedlings for sale in a nursery.
C. Sacks of yard fertilizer.
D. Packets of flower seeds.
E. Small gardening tools, including rakes, shovels, and hoes.

AACSB: Analytical Thinking
AICPA: BB Industry
AICPA. FN Measurement
Accessibility: Keyboard Navigation
Blooms: Understana
Difficulty: 2 Medium
Learning Objective: 02-C1 Describe important features of job order production.
Topic: Job Order Costing
66. Large aircraft producers such as the Boeing Company normally use:
A. Job order costing.
B. Process costing.
C. Mixed costing.
D. Full costing.
E. Simple costing.
67. A document in a job order costing system that is used to record the costs of producing a job is $a(n)$ :
A. Job cost sheet.
B. Job lot.
C. Finished goods summary.
D. Process cost system.
E. Units-of-production sheet.

AACSB: Communication
A/CPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation Blooms: Remember

Difficulty: 1 Easy
Learning Objective: 02-C2 Explain job cost sheets and how they are used in job order costing.
Topic: Job Cost Sheet
68. A job cost sheet shows information about each of the following items except:
A. The direct labor costs assigned to the job.
B. The name of the customer.
C. The costs incurred by the marketing department in selling the job.
D. The overhead costs assigned to the job.
E. The direct materials costs assigned to the job.

AACSB: Analytical Thinking AICPA: BB Industry

AICPA. FN Measurement
Accessibility: Keyboard Navigation Blooms: Understana
69. The job order cost sheets used by Greene Company revealed the following:

| Job <br> No. | Bal., May <br> $\mathbf{1}$ | May Production <br> Costs |
| :--- | ---: | ---: |
| 134 | $\$ 1,700$ | $\$ 0$ |
| 135 | 1,200 | 300 |
| 136 | 0 | 900 |

Job No. 135 was completed during May and Jobs No. 134 and 135 were shipped to customers in May. What was the company's cost of goods sold for May and the Work in Process inventory on May 31?
A. $\$ 3,200 ; \$ 900$.
B. $\$ 2,900 ; \$ 1,200$.
C. $\$ 1,200 ; \$ 2,900$.
D. $\$ 1,700 ; \$ 1,200$.
E. $\$ 4,100 ; \$ 0$.

| Cost of goods sold: |  |
| :--- | ---: |
| Job 124: | $\$ 1,700$ |
| Job 125: $(\$ 1,200+\$ 300)$ | 1,500 |
|  | $\$ 3,200$ |
| Work in Process inventory: |  |
| Job 126: | $\$ 900$ |

70. Job A3B was ordered by a customer on September 25. During the month of September, Jaycee Corporation requisitioned $\$ 2,500$ of direct materials and used $\$ 4,000$ of direct labor. The job was not finished by the end of the month, but needed an additional $\$ 3,000$ of direct materials and additional direct labor of $\$ 6,500$ to finish the job in October. The company applies overhead at the end of each month at a rate of $200 \%$ of the direct labor cost incurred. What is the balance in the Work in Process account at the end of September relative to Job A3B?
A. $\$ 5,500$
B. $\$ 11,500$
C. $\$ 6,500$
D. $\$ 9,500$
E. $\$ 14,500$

DM \$2,500 + DL \$4,000 + OH (\$4,000 * 2) = WIP for Job A3B \$14,500
Work in process contains the sum of the costs on job cost sheets for jobs that are not yet complete.
71. Job A3B was ordered by a customer on September 25. During the month of September, Jaycee Corporation requisitioned $\$ 2,500$ of direct materials and used $\$ 4,000$ of direct labor. The job was not finished by the end of the month, but needed an additional $\$ 3,000$ of direct materials and additional direct labor of $\$ 6,500$ to finish the job in October. The company applies overhead at the end of each month at a rate of $200 \%$ of the direct labor cost incurred. What is the total cost of the job when it is completed in October?
A. $\$ 16,000$
B. $\$ 22,500$
C. $\$ 37,000$
D. $\$ 26,500$
E. $\$ 32,000$

September job costs: RM $\$ 2,500$ + DL \$4,000 + OH (\$4,000 * 2) = \$14,500
October job costs: RM \$3,000 + DL \$6,500 + OH (\$6,500 * 2) = \$22,500
Total costs: September \$14,500 + October \$22,500 = \$37,000
Work in process contains the sum of the costs on job cost sheets for jobs that are not yet complete.
72. Job A3B was ordered by a customer on September 25. During the month of September, Jaycee Corporation requisitioned $\$ 2,500$ of direct materials and used $\$ 4,000$ of direct labor. The job was not finished by the end of the month, but needed an additional $\$ 3,000$ of direct materials in October and additional direct labor of $\$ 6,500$ to finish the job. The company applies overhead at the end of each month at a rate of $200 \%$ of the direct labor cost. What is the amount of job costs added to Work in Process Inventory during October?
A. $\$ 16,000$
B. $\$ 22,500$
C. $\$ 37,000$
D. $\$ 26,500$
E. $\$ 32,000$

October job costs: RM \$3,000 + DL \$6,500 + OH (\$6,500 * 2) = \$22,500
Work in process contains the sum of the costs on job cost sheets for jobs that are not yet complete.

AACSB: Analytical Thinking AICPA: BB Industry

A/CPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Learning Objective: 02-C2 Explain job cost sheets and how they are used in job order costing.
Topic: Job Cost Sheet
73. A job cost sheet includes:
A. Direct materials, direct labor, operating costs.
B. Direct materials, estimated overhead, administrative costs.
C. Direct labor, actual overhead, selling costs.
D. Direct materials, direct labor, estimated overhead.
E. Direct materials, direct labor, selling costs.

AACSB: Analytical Thinking
AICPA: BB Industry
AICPA. FN Measurement
Accessibility: Keyboard Navigation
Blooms: Understana
Difficulty: 2 Medium
Learning Objective: 02-C2 Explain job cost sheets and how they are used in job order costing.
Topic: Job Cost Sheet
74. The balance in the Work In Process Inventory at any point in time is equal to:
A. The costs for jobs finished during the period but not yet sold.
B. The cost of jobs ordered but not yet started into production.
C. The sum of the costs for all jobs in process but not yet completed.
D. The costs of all jobs started during the period, completed or not.
E. The sum of the materials, labor and overhead costs paid during the period.

AACSB: Analytical Thinking AICPA: BB Industry

AICPA. FN Measurement
Accessibility: Keyboard Navigation
Blooms: Understana
Difficulty: 2 Medium
Learning Objective: 02-C2 Explain job cost sheets and how they are used in job order costing.
Topic: Job Cost Sheet
75. The Work in Process Inventory account of a manufacturing company that uses an overhead rate based on direct labor cost has a $\$ 3,200$ debit balance after all posting is completed. The cost sheet of the one job still in process shows direct material cost of $\$ 1,400$ and direct labor cost of $\$ 800$. Therefore, the amount of the applied overhead is:
A. $\$ 1,800$.
B. $\$ 2,200$.
C. $\$ 1,000$.
D. $\$ 800$.
E. $\$ 2,400$.
$W I P=D M+D L+O H$
$\$ 3,200=\$ 1,400+\$ 800+\mathrm{OH}$
$\mathrm{OH}=\$ 3,200-1,400-800=\$ 1,000$

Difficulty: 1 Easy
76. The Work in Process Inventory account of a manufacturing company that uses an overhead rate based on direct labor cost has a $\$ 4,400$ debit balance after all posting is completed. The cost sheet of the one job still in process shows direct material cost of $\$ 2,000$ and direct labor cost of $\$ 800$. Therefore, the company's overhead application rate is:
A. $40 \%$.
B. $50 \%$.
C. $80 \%$.
D. $200 \%$.
E. $220 \%$.

WIP $=\mathrm{DM}+\mathrm{DL}+\mathrm{OH}$
$\$ 4,400=\$ 2,000+\$ 800+\mathrm{OH}$
$\mathrm{OH}=\$ 1,600 ; \mathrm{OH}$ rate $=\$ 1,600 / \$ 800=\underline{200 \%}$
77. A perpetual record of a raw materials item that records data on the quantity and cost of units purchased, units issued for use in production, and units that remain in the raw materials inventory, is called a(n):
A. Materials ledger card.
B. Materials requisition.
C. Purchase order.
D. Materials voucher.
E. Purchase ledger.
78. A source document that production managers use to request materials for production and that is used to assign materials costs to specific jobs or to overhead is a:
A. Job cost sheet.
B. Production order.
C. Materials requisition.
D. Materials purchase order.
E. Receiving report.

AACSB: Communication
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
79. A company that uses a job order costing system would make the following entry to record the flow of direct materials into production:
A. debit Work in Process Inventory, credit Cost of Goods Sold.
B. debit Work in Process Inventory, credit Raw Materials Inventory.
C. debit Work in Process Inventory, credit Factory Overhead.
D. debit Factory Overhead, credit Raw Materials Inventory.
E. debit Finished Goods Inventory, credit Raw Materials Inventory.

AACSB: Analytical Thinking
AICPA: BB Industry
A/CPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Understana
Difficulty: 2 Medium
Learning Objective: 02-P1 Describe and record the flow of materials costs in job order costing.
Topic: Materials Cost Flows and Documents
80. The Work in Process Inventory account for DG Manufacturing follows. Compute the cost of jobs completed and transferred to Finished Goods Inventory.

| Work in Process Inventory |  |  |  |
| :--- | ---: | ---: | ---: |
|  | DR | CR |  |
| Beginning balance | 4,500 |  |  |
| Direct materials | 47,100 |  |  |
| Direct labor | 29,600 | $?$ | Finished goods |
| Applied overhead | 15,800 |  |  |
| Ending balance | 8,900 |  |  |

The cost of units transferred to finished goods is:
A. $\$ 97,000$.
B. $\$ 105,900$.
C. $\$ 88,100$.
D. \$95,200.
E. $\$ 92,500$.
$\$ 4,500+\$ 47,100+\$ 29,600+\$ 15,800-$ FG $=\$ 8,900 ;$ FG $=\$ 88,100$
81. A company's overhead rate is $60 \%$ of direct labor cost. Using the following incomplete accounts, determine the cost of direct materials used.

| Work in Process Inventory |  |  |  | Finished Goods Inventory |  |  |  |
| :--- | ---: | ---: | :--- | :--- | ---: | ---: | ---: |
| DR |  | CR |  | DR |  | CR |  |
| Beg. Bal. | 100,800 |  |  | Beg. Bal. | 118,200 |  |  |
| D.M. | $?$ |  |  |  | 324,800 |  | 301,000 |
| D.L. | $?$ |  |  |  |  |  |  |
| O.H. | $?$ | F.G. | $?$ |  |  |  |  |
| End. Bal. | 131,040 |  |  | End. Bal. | 142,000 |  |  |


| Factory Overhead |  |  |
| ---: | ---: | :---: |
| DR | CR |  |
| 93,240 |  |  |

A. $\$ 106,400$.
B. $\$ 113,120$.
C. $\$ 30,240$.
D. $\$ 211,680$
E. $\$ 324,800$.

DL $=\$ 90,720 / .60=\$ 151,200$
Beg Bal + DM + DL + OH - Tran to FG = End Bal
$\$ 100,800+\mathrm{DM}+\$ 151,200+\$ 90,720-\$ 324,800=\$ 131,040 ; \mathrm{DM}=\$ 113,120$

Learning Objective: 02-P1 Describe and record the flow of materials costs in job order costing.
Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing. Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing.

Topic: Labor Cost Flows and Documents
Topic: Materials Cost Flows and Documents
Topic: Overhead Cost Flows and Documents
82. A source document that an employee uses to report how much time was spent working on a job or on overhead activities and that is used to determine the amount of direct labor to charge to the job or to determine the amount of indirect labor to charge to factory overhead is called a:
A. Payroll Register.
B. Factory payroll record.
C. General Ledger.
D. Time ticket.
E. Factory Overhead Ledger.
83. When factory payroll costs for labor are allocated in a job cost accounting system:
A. Factory Payroll is debited and Work in Process Inventory is credited.
B. Work in Process Inventory and Factory Overhead are debited and Factory Payroll is credited.
C. Cost of Goods Manufactured is debited and Direct Labor is credited.
D. Direct Labor and Indirect Labor are debited and Factory Payroll is credited.
E. Work in Process Inventory is debited and Factory Payroll is credited.

AACSB: Analytical Thinking AICPA: BB Industry

AICPA. FN Measurement
Accessibility: Keyboard Navigation
Blooms: Understana
Difficulty: 2 Medium
Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing.
Topic: Labor Cost Flows and Documents
84. Oxford Company uses a job order costing system. In the last month, the system accumulated labor time tickets total $\$ 24,600$ for direct labor and $\$ 4,300$ for indirect labor. These costs were accumulated in Factory Payroll as they were paid. Which entry should Oxford make to assign the Factory Payroll?
A. Debit Payroll Expense $\$ 28,900$; credit Cash $\$ 28,900$.
B. Debit Payroll Expense $\$ 24,600$; debit Factory Overhead $\$ 4,300$; credit Factory Payroll \$28,900.
C. Debit Work in Process Inventory $\$ 24,600$; debit Factory Overhead $\$ 4,300$; credit Factory Payroll \$28,900.
D. Debit Work in Process Inventory $\$ 24,600$; debit Factory Overhead $\$ 4,300$; credit Wages Payable $\$ 28,900$.
E. Debit Work in Process Inventory $\$ 28,900$; credit Factory Payroll $\$ 28,900$.
85. Labor costs in production can be:
A. Direct or indirect.
B. Indirect or sunk.
C. Direct or payroll.
D. Indirect or payroll.
E. Direct or sunk.
86. An example of direct labor cost is:
A. Supervisor salary
B. Maintenance worker wages
C. Janitor wages
D. Product assembler wages
E. Accountant salary
87. A company has an overhead application rate of $125 \%$ of direct labor costs. How much overhead would be allocated to a job if it required total labor costing $\$ 20,000$ ?
A. $\$ 5,000$.
B. $\$ 16,000$.
C. $\$ 25,000$.
D. $\$ 125,000$.
E. $\$ 250,000$.
$\$ 20,000 * 1.25=\$ 25,000$
88. The rate established prior to the beginning of a period that uses estimated overhead and an allocation factor such as estimated direct labor, and that is used to assign overhead cost to jobs, is the:
A. Predetermined overhead rate.
B. Overhead variance rate.
C. Estimated labor cost rate.
D. Chargeable overhead rate.
E. Miscellaneous overhead rate.
89. Kayak Company uses a job order costing system and allocates its overhead on the basis of direct labor costs. Kayak Company's production costs for the year were: direct labor, \$30,000; direct materials, $\$ 50,000$; and factory overhead applied $\$ 6,000$. The overhead application rate was:
A. $5.0 \%$.
B. $12.0 \%$.
C. $20.0 \%$.
D. $500.0 \%$.
E. $16.7 \%$.

OH rate $=$ OH applied/Direct Labor Costs $=\$ 6,000 / \$ 30,000=20 \%$

AACSB: Analytical Thinking
A/CPA: BB Industry
A/CPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing.
Topic: Overhead Cost Flows and Documents
90. Lowden Company has an overhead application rate of $160 \%$ and allocates overhead based on direct material cost. During the current period, direct labor cost is $\$ 50,000$ and direct materials used cost $\$ 80,000$. Determine the amount of overhead Lowden Company should record in the current period.
A. $\$ 31,250$.
B. $\$ 50,000$.
C. $\$ 80,000$.
D. $\$ 128,000$.
E. \$208,000.
$\$ 80,000$ direct materials * $1.60=\$ 128,000$

AACSB: Analytical Thinking
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing.
Topic: Overhead Cost Flows and Documents
91. The overhead cost applied to a job during a period is recorded with a credit to Factory Overhead and a debit to:
A. Jobs Overhead Expense.
B. Cost of Goods Sold.
C. Finished Goods Inventory.
D. Indirect Labor.
E. Work in Process Inventory.
92. CWN Company uses a job order costing system and last period incurred $\$ 80,000$ of actual overhead and $\$ 100,000$ of direct labor. CWN estimates that its overhead next period will be $\$ 75,000$. It also expects to incur $\$ 100,000$ of direct labor. If CWN bases applied overhead on direct labor cost, its predetermined overhead rate for the next period should be:
A. $75 \%$.
B. $80 \%$.
C. 107\%.
D. $125 \%$.
E. 133\%.

OH rate $=\$ 75,000 / \$ 100,000=\underline{75 \%}$
93. Cosi Company uses a job order costing system and allocates its overhead on the basis of direct labor costs. Cosi expects to incur $\$ 800,000$ of overhead during the next period, and expects to use 50,000 labor hours at a cost of $\$ 10.00$ per hour. What is Cosi Company's overhead application rate?
A. $6.25 \%$.
B. $62.5 \%$.
C. $160 \%$.
D. $1600 \%$.
E. $67 \%$.

Total DL Cost $=50,000$ hours * $\$ 10 / \mathrm{hr}=\$ 500,000$
OH rate $=\$ 800,000 / \$ 500,000=160 \%$
94. The B\&T Company's production costs for May are: direct labor, $\$ 13,000$; indirect labor, $\$ 6,500$; direct materials, $\$ 15,000$; property taxes on production equipment, $\$ 800$; heat, lights and power, $\$ 1,000$; and insurance on plant and equipment, $\$ 200$. B\&T Company's factory overhead incurred for May is:
A. $\$ 2,000$.
B. $\$ 6,500$.
C. $\$ 8,500$.
D. $\$ 21,500$.
E. $\$ 36,500$.

| Indirect labor | $\$ 6,500$ |
| :--- | ---: |
| Taxes | 800 |
| Heat, light and power | 1,000 |
| Insurance | 200 |
| Total OH | $\$ 8,500$ |

95. Mesa Corp. allocates overhead to production on the basis of direct labor costs. Mesa's total estimated overhead is $\$ 450,000$ and estimated direct labor is $\$ 180,000$. Determine the amount of overhead to be allocated to finished goods inventory if there is $\$ 20,000$ of total direct labor cost in the jobs in the finished goods inventory.
A. $\$ 8,000$.
B. $\$ 20,000$.
C. $\$ 70,000$.
D. $\$ 50,000$.
E. $\$ 90,000$.

OH rate $=\$ 450,000 / \$ 180,000=250 \%$
OH allocated $=250 \%$ * $20,000=\$ 50,000$
96. Dallas Company uses a job order costing system. The company's executives estimated that direct labor would be $\$ 2,000,000$ (200,000 hours at $\$ 10 /$ hour) and that factory overhead would be $\$ 1,500,000$ for the current period. At the end of the period, the records show that there had been 180,000 hours of direct labor and \$1,200,000 of actual overhead costs. Using direct labor hours as a base, what was the predetermined overhead rate?
A. $\$ 6.00$ per direct labor hour.
B. $\$ 7.50$ per direct labor hour.
C. $\$ 6.67$ per direct labor hour.
D. $\$ 8.33$ per direct labor hour.
E. $\$ 7.08$ per direct labor hour.

OH rate $=\$ 1,500,000 / 200,000$ hours $=\$ 7.50 /$ hour
97. Using the following accounts and an overhead rate of $90 \%$ of direct labor cost, determine the amount of applied overhead.

| Work in Process Inventory |  |  |  | Finished Goods Inventory |  |  |  |
| :--- | ---: | ---: | :--- | :--- | ---: | ---: | ---: |
| DR |  | CR |  | DR |  | CR |  |
| Beg. Bal. | 17,600 |  |  | Beg. Bal. | 5,200 |  |  |
| D.M. | 52,800 |  |  |  | 201,520 |  |  |
| D.L. | $?$ |  |  |  |  |  |  |
| O.H. | $?$ | F.G. | $?$ |  |  |  |  |
| End. Bal. | 36,080 |  |  |  |  |  |  |

A. $\$ 79,200$.
B. $\$ 167,200$.
C. $\$ 34,320$.
D. $\$ 88,000$.
E. $\$ 35,376$.
$\$ 17,600+52,800+$ DL + OH - 201,520 $=\$ 36,080$
DL + OH $=\$ 167,200$
DL + .9DL = \$167,200
$1.9 \mathrm{DL}=\$ 167,200 ; \mathrm{DL}=\$ 88,000$
$\$ 88,000+\mathrm{OH}=\$ 167,200 ; \mathrm{OH}=\$ 79,200$
98. If one unit of Product Z 2 used $\$ 2.50$ of direct materials and $\$ 3.00$ of direct labor, sold for $\$ 8.00$, and was assigned overhead at the rate of $30 \%$ of direct labor costs, how much gross profit was realized from this sale?
A. $\$ 8.00$.
B. $\$ 5.50$.
C. $\$ 2.50$.
D. $\$ 1.60$.
E. \$0.90.

| Cost: |  |  |  |
| :--- | ---: | :--- | ---: |
| DM | $\$ 2.50$ | Selling Price | $\$ 8.00$ |
| DL | 3.00 | Cost | $\underline{6.40}$ |
| OH $(\$ 3 * 30 \%)$ | $\underline{0.90}$ | Gross Profit | $\$ 1.60$ |
| Total Cost | $\underline{\$ 6.40}$ |  |  |

AACSB: Analytical Thinking
A/CPA: BB Critical Thinking
AICPA: FN Measurement
Blooms: Apply
Difficulty: 3 Hara
Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing.
Topic: Overhead Cost Flows and Documents
99. The ending inventory of finished goods has a total cost of $\$ 9,000$ and consists of 600 units. If the overhead applied to these goods is $\$ 3,000$, and the overhead rate is $75 \%$ of direct labor, how much direct materials cost was incurred in producing these units?
A. $\$ 3,750$.
B. $\$ 2,000$.
C. $\$ 4,000$.
D. $\$ 6,000$.
E. $\$ 9,000$.
$\mathrm{DM}+\mathrm{DL}+\mathrm{OH}=$ Total cost
DM $+(\$ 3,000 / 75)+\$ 3,000=\$ 9,000$
DM $+\$ 4,000+\$ 3,000=\$ 9,000 ; D M=\$ 2,000$
100. At the current year-end, Simply Company found that its overhead was underapplied by $\$ 2,500$, and this amount was not considered material. Based on this information, Simply should:
A. Close the $\$ 2,500$ to Cost of Goods Sold.
B. Close the $\$ 2,500$ to Finished Goods Inventory.
C. Do nothing about the $\$ 2,500$, since it is not material, and it is likely that overhead will be overapplied by the same amount next year.
D. Carry the $\$ 2,500$ to the income statement as "Other Expense".
E. Carry the $\$ 2,500$ to the next period.
101. If overhead applied is less than actual overhead incurred, it is:
A. Fully applied.
B. Underapplied.
C. Overapplied.
D. Expected.
E. Normal.

AACSB: Communication
AICPA: BB Industry
A/CPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
102. The amount by which the overhead applied to jobs during a period exceeds the overhead incurred during the period is known as:
A. Adjusted overhead.
B. Estimated overhead.
C. Predetermined overhead.
D. Underapplied overhead.
E. Overapplied overhead.

AACSB: Analytical Thinking
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Understana
Difficulty: 1 Easy
Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing.
Topic: Underapplied or Overapplied Overheaa
103. The amount by which overhead incurred during a period exceeds the overhead applied to jobs is:
A. Balanced overhead.
B. Predetermined overhead.
C. Actual overhead.
D. Underapplied overhead.
E. Overapplied overhead.
104. If a company applies overhead to production with a predetermined overhead rate, a credit balance in the Factory Overhead account at the end of the period means that:
A. The bookkeeper has made an error because the debits don't equal the credits.
B. The balance will be carried forward to the next period as an overhead cost.
C. Actual overhead incurred was less than the overhead amount applied to production.
D. The overhead was underapplied for the period.
E. Actual overhead was greater than the overhead amount applied to production.
105. Marshall Enterprises charged the following amounts of overhead to jobs during the year: $\$ 20,000$ to jobs still in process, $\$ 60,000$ to jobs completed but not sold, and $\$ 120,000$ to jobs finished and sold. At year-end, Marshall Enterprise's Factory Overhead account has a credit balance of $\$ 5,000$, which is not a material amount. What entry should Marshall make at yearend?
A. No entry is needed.
B. Debit Factory Overhead $\$ 5,000$; credit Cost of Goods Sold $\$ 5,000$.
C. Debit Cost of Goods Sold \$5,000; credit Factory Overhead \$5,000.
D. Debit Factory Overhead $\$ 5,000$; credit Work in Process Inventory $\$ 5,000$.
E. Debit Factory Overhead $\$ 5,000$; credit Finished Goods Inventory $\$ 5,000$.

AACSB: Analytical Thinking
AICPA: BB Industry
A/CPA. FN Measurement
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 3 Hara
Learning Objective: 02-P4 Determine adjustments for overapplied and underapplied factory overhead. Topic: Underapplied or Overapplied Overheaa
106. Clemmens Company applies overhead based on direct labor cost. Estimated overhead and direct labor costs for the year were $\$ 112,500$ and $\$ 125,000$, respectively. During the year, actual overhead was $\$ 107,400$ and actual direct labor cost was $\$ 120,000$. The entry to close the overor underapplied overhead at year-end, assuming an immaterial amount, would include:
A. A debit to Cost of Goods Sold for $\$ 600$.
B. A credit to Factory Overhead for $\$ 600$.
C. A credit to Finished Goods Inventory for $\$ 600$.
D. A debit to Work in Process Inventory for $\$ 600$.
E. A credit to Cost of Goods Sold for $\$ 600$.
$\mathrm{OH}=\$ 112,500 / \$ 125,000=90 \%$ of DLC

| Actual Overhead | $\$ 107,400$ |
| :--- | ---: |
| Overhead applied $(90 \% * \$ 120,000)$ | $\underline{108,000}$ |
| Overapplied overhead | $\$ 600$ |
|  | AACSB: Analytical Thinking <br> AICPA: BB Industry |
| A/CPA: FN Measurement |  |
| Blooms: Apply |  |
| Difficulty: 3 Hara |  |

Learning Objective: 02-P4 Determine adjustments for overapplied and underapplied factory overhead. Topic: Underapplied or Overapplied Overheaa
107. If overapplied or underapplied overhead is material, it should be disposed of by allocating it to:
A. Cost of goods sold and finished goods inventory.
B. Finished goods inventory and work in process inventory.
C. work in process inventory, finished goods inventory, and cost of goods sold.
D. work in process inventory.
E. Raw materials inventory, work in process inventory, and finished goods inventory.
108. The Marina Corp. has applied overhead to jobs during the period as follows:

| Jobs finished and sold | $\$ 46,000$ |
| :--- | ---: |
| Jobs started and in process | 54,000 |
| Jobs finished and unsold | 100,000 |

The application of overhead has resulted in a $\$ 5,600$ credit balance in the Factory Overhead account, and this amount is not material. The entry to dispose of this remaining factory overhead balance is:
A. Debit Cost of Goods Sold $\$ 5,600$; credit Factory Overhead $\$ 5,600$.
B. Debit Factory Overhead $\$ 5,600$; credit Cost of Goods Sold $\$ 5,600$.
C. Debit Factory Overhead $\$ 5,600$; credit Work in Process Inventory $\$ 5,600$.
D. Debit Work in Process Inventory \$5,600; credit Factory Overhead \$5,600.
E. No entry is needed.
109. Andrew Industries purchased $\$ 165,000$ of raw materials on account during the month of March. The beginning Raw Materials Inventory balance was $\$ 22,000$, and the materials used to complete jobs during the month were $\$ 141,000$ direct materials and $\$ 13,000$ indirect materials. What is the ending Raw Materials Inventory balance for March?
A. $\$ 46,000$
B. $\$ 11,000$
C. $\$ 33,000$
D. $\$ 24,000$
E. $\$ 9,000$

Beginning RM $\$ 22,000$ + RM Purchased $\$ 165,000$ - Direct RM used $\$ 141,000$ - Indirect RM used \$13,000 = \$33,000 Ending RM Balance

AACSB: Analytical Thinking
AICPA: BB Industry
AICPA. FN Measurement
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Learning Objective: 02-P1 Describe and record the flow of materials costs in job order costing.
Topic: Materials Cost Flows and Documents
110. Andrew Industries purchased $\$ 165,000$ of raw materials on account during the month of March. The beginning Raw Materials Inventory balance was $\$ 22,000$, and the materials used to complete jobs during the month were $\$ 141,000$ direct materials and $\$ 13,000$ indirect materials. How should Andrews journalize the purchase of raw materials for March?
A. Debit Raw Materials Inventory $\$ 165,000$; credit Accounts Payable $\$ 165,000$
B. Debit Work In Process Inventory $\$ 165,000$; credit Raw Materials Inventory $\$ 165,000$
C. Debit Raw Materials Inventory \$187,000; credit Cash \$187,000
D. Debit Accounts Payable $\$ 165,000$; credit Raw Materials Inventory $\$ 165,000$
E. Debit Accounts Payable $\$ 187,000$; credit Raw Materials Inventory $\$ 187,000$

AACSB: Analytical Thinking AICPA: BB Industry AICPA: FN Measurement

Accessibility: Keyboard Navigation
Blooms: Apply Difficulty: 2 Medium

Learning Objective: 02-P1 Describe and record the flow of materials costs in job order costing.
Topic: Materials Cost Flows and Documents
111. Andrew Industries purchased $\$ 165,000$ of raw materials on account during the month of March. The beginning Raw Materials Inventory balance was $\$ 22,000$, and the materials used to complete jobs during the month were $\$ 141,000$ direct materials and $\$ 13,000$ indirect materials. What amount will Andrew transfer to Work In Process Inventory for the month of March?
A. $\$ 165,000$
B. $\$ 154,000$
C. $\$ 13,000$
D. $\$ 141,000$
E. $\$ 33,000$

Only direct materials used of $\$ 141,000$ should be transferred to Work In Process Inventory for March.

AACSB: Analytical Thinking
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Learning Objective: 02-P1 Describe and record the flow of materials costs in job order costing.
Topic: Materials Cost Flows and Documents
112. Andrew Industries purchased $\$ 165,000$ of raw materials on account during the month of March. The beginning Raw Materials Inventory balance was $\$ 22,000$, and the materials used to complete jobs during the month were $\$ 141,000$ direct materials and $\$ 13,000$ indirect materials. What journal entry should Andrew use to account for direct materials used in March:
A. Debit Raw Materials Inventory $\$ 141,000$; credit Accounts Payable $\$ 141,000$.
B. Debit Work in Process Inventory $\$ 141,000$; credit Raw Materials Inventory $\$ 141,000$.
C. Debit Work in Process Inventory $\$ 141,000$; credit Accounts Payable $\$ 141,000$.
D. Debit Finished Goods Inventory $\$ 22,000$; credit Raw Materials Inventory $\$ 22,000$.
E. Debit Raw Materials Inventory $\$ 153,000$; credit Work In Process $\$ 153,000$.

AACSB: Analytical Thinking AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Learning Objective: 02-P1 Describe and record the flow of materials costs in job order costing.
Topic: Materials Cost Flows and Documents
113. Juarez Builders incurred $\$ 285,000$ of labor costs for construction jobs completed during the month of August, of which $\$ 212,000$ was direct and $\$ 73,000$ was indirect supervisory costs. The correct journal entry to record the direct labor for the month is:
A. Debit Payroll Expense $\$ 212,000$; credit Cash $\$ 212,000$.
B. Debit Factory Wages Payable $\$ 285,000$; credit Work in Process Inventory $\$ 212,000$.
C. Debit Work in Process Inventory $\$ 212,000$; credit Cash $\$ 285,000$.
D. Debit Factory Wages $\$ 285,000$; credit Factory Wages Payable $\$ 285,000$.
E. Debit Work in Process Inventory $\$ 212,000$; credit Factory Wages Payable $\$ 212,000$.

A/CPA: FN Measurement

Difficulty: 2 Medium
Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing.
Topic: Labor Cost Flows and Documents
114. Juarez Builders incurred $\$ 285,000$ of labor costs for construction jobs completed during the month of August, of which $\$ 212,000$ was direct and $\$ 73,000$ was indirect supervisory costs. The correct journal entry to record the $\$ 73,000$ indirect labor for the month is:
A. Debit Supervisor Wage Expense; credit Factory Wages Payable.
B. Debit Factory Overhead; credit Factory Wages Payable.
C. Debit Supervisor Wage Expense; credit Factory Overhead.
D. Debit Factory Wages Payable; credit Factory Overhead.
E. Debit Factory Wage Expense; credit Cash.

AACSB: Analytical Thinking
AICPA: BB Industry
A/CPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Learning Objective: 02-P4 Determine adjustments for overapplied and underapplied factory overhead.
Topic: Overhead Cost Flows and Documents
115. Minstrel Manufacturing uses a job order costing system. During one month Minstrel purchased $\$ 198,000$ of raw materials on credit; issued materials to production of $\$ 195,000$ of which $\$ 30,000$ were indirect. Minstrel incurred a factory payroll of \$150,000, paid in cash, of which $\$ 40,000$ was indirect labor. Minstrel uses a predetermined overhead rate of $150 \%$ of direct labor cost. The journal entry to record the purchase of materials is:
A. Debit Raw Materials Inventory $\$ 198,000$; credit Accounts Payable $\$ 198,000$.
B. Debit Work in Process Inventory $\$ 198,000$; credit Accounts Payable $\$ 198,000$.
C. Debit Raw Materials Inventory \$198,000; credit Work in Process Inventory \$198,000.
D. Debit Work in Process Inventory $\$ 195,000$; credit Raw Materials Inventory $\$ 195,000$.
E. Debit Raw Materials Inventory $\$ 198,000$; credit Finished Goods Inventory $\$ 198,000$.

Blooms: Apply
Difficulty: 3 Hara
Learning Objective: 02-P1 Describe and record the flow of materials costs in job order costing.
Topic: Materials Cost Flows and Documents
116. Minstrel Manufacturing uses a job order costing system. During one month Minstrel purchased $\$ 198,000$ of raw materials on credit; issued materials to production of $\$ 195,000$ of which $\$ 30,000$ were indirect. Minstrel incurred a factory payroll of $\$ 150,000$, paid in cash, of which $\$ 40,000$ was indirect labor. Minstrel uses a predetermined overhead rate of $150 \%$ of direct labor cost. The journal entry to record the issuance of materials to production is:
A. Debit Raw Materials Inventory $\$ 195,000$; credit Accounts Payable $\$ 195,000$.
B. Debit Work in Process Inventory $\$ 195,000$; credit Raw Materials Inventory $\$ 195,000$.
C. Debit Raw Materials Inventory \$195,000; credit Work in Process Inventory \$195,000.
D. Debit Work in Process Inventory $\$ 165,000$; debit Factory Overhead $\$ 30,000$; credit Raw Materials Inventory \$195,000.
E. Debit Finished Goods Inventory \$195,000; credit Raw Materials Inventory \$195,000.
117. Minstrel Manufacturing uses a job order costing system. During one month Minstrel purchased $\$ 198,000$ of raw materials on credit; issued materials to production of $\$ 195,000$ of which $\$ 30,000$ were indirect. Minstrel incurred a factory payroll of $\$ 150,000$, paid in cash, of which $\$ 40,000$ was indirect labor. Minstrel uses a predetermined overhead rate of $150 \%$ of direct labor cost. The journal entry to record payment of the factory payroll is:
A. Debit Work in Process Inventory $\$ 150,000$; credit Factory Wages Payable $\$ 150,000$.
B. Debit Work in Process Inventory $\$ 150,000$; credit Cash $\$ 150,000$.
C. Debit Factory Wages Payable \$150,000; credit Cash \$150,000.
D. Debit Work in Process Inventory $\$ 110,000$; debit Factory Overhead $\$ 40,000$; credit Factory Wages Payable \$150,000.
E. Debit Work in Process Inventory $\$ 110,000$; debit Factory Overhead $\$ 40,000$; credit Cash \$150,000.

AACSB: Analytical Thinking
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 3 Hara
Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing.
Topic: Labor Cost Flows and Documents
118. Minstrel Manufacturing uses a job order costing system. During one month Minstrel purchased $\$ 198,000$ of raw materials on credit; issued materials to production of $\$ 195,000$ of which $\$ 30,000$ were indirect. Minstrel incurred a factory payroll of $\$ 150,000$, paid in cash, of which $\$ 40,000$ was indirect labor. Minstrel uses a predetermined overhead rate of $150 \%$ of direct labor cost. The journal entry to record the allocation of the factory payroll to production is:
A. Debit Work in Process Inventory $\$ 150,000$; credit Factory Wages Payable $\$ 150,000$.
B. Debit Work in Process Inventory $\$ 150,000$; credit Cash $\$ 150,000$.
C. Debit Factory Wages Payable \$150,000; credit Cash \$150,000.
D. Debit Work in Process Inventory $\$ 110,000$; debit Factory Overhead $\$ 40,000$; credit Factory Wages Payable \$150,000.
E. Debit Work in Process Inventory $\$ 110,000$; debit Factory Overhead $\$ 40,000$; credit Cash \$150,000.

AACSB: Analytical Thinking
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 3 Hara
Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing.
Topic: Labor Cost Flows and Documents
119. Minstrel Manufacturing uses a job order costing system. During one month Minstrel purchased $\$ 198,000$ of raw materials on credit; issued materials to production of $\$ 195,000$ of which $\$ 30,000$ were indirect. Minstrel incurred a factory payroll of $\$ 150,000$, paid in cash, of which $\$ 40,000$ was indirect labor. Minstrel uses a predetermined overhead rate of $150 \%$ of direct labor cost. The journal entry to record the application of factory overhead to production is:
A. Debit Work in Process Inventory $\$ 225,000$; credit Factory Overhead $\$ 225,000$.
B. Debit Work in Process Inventory $\$ 165,000$; credit Factory Overhead $\$ 165,000$.
C. Debit Factory Payroll $\$ 150,000$; credit Work in Process Inventory $\$ 150,000$.
D. Debit Factory Overhead $\$ 165,000$; credit Work in Process Inventory $\$ 165,000$.
E. Debit Work in Process Inventory $\$ 165,000$; credit Factory Payroll $\$ 165,000$.
$\$ 110,000$ * $1.5=\$ 165,000$

AACSB: Analytical Thinking
AICPA: BB Industry
AICPA: FN Measurement
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 3 Hara
Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing.
Topic: Overhead Cost Flows and Documents
120. Minstrel Manufacturing uses a job order costing system. During one month Minstrel purchased $\$ 198,000$ of raw materials on credit; issued materials to production of $\$ 195,000$ of which $\$ 30,000$ were indirect. Minstrel incurred a factory payroll of $\$ 150,000$, paid in cash, of which $\$ 40,000$ was indirect labor. Minstrel uses a predetermined overhead rate of $150 \%$ of direct labor cost. The total manufacturing costs added during the period are:
A. $\$ 440,000$.
B. $\$ 470,000$.
C. $\$ 500,000$.
D. $\$ 570,000$.
E. $\$ 540,000$.
$\$ 165,000+\$ 110,000+(\$ 110,000 * 1.5)=\$ 440,000$
121. Minstrel Manufacturing uses a job order costing system. During one month Minstrel purchased $\$ 198,000$ of raw materials on credit; issued materials to production of $\$ 195,000$ of which $\$ 30,000$ were indirect. Minstrel incurred a factory payroll of $\$ 150,000$, paid in cash, of which $\$ 40,000$ was indirect labor. Minstrel uses a predetermined overhead application rate of $150 \%$ of direct labor cost. If Minstrel incurred total overhead costs of $\$ 167,800$ during the month, compute the amount of under- or overapplied overhead:
A. $\$ 2,800$ overapplied.
B. $\$ 17,800$ underapplied.
C. $\$ 2,800$ underapplied.
D. $\$ 17,800$ overapplied.
E. \$57,200 overapplied.
$\$ 167,800-(\$ 110,000 * 1.5)=\$ 2,800$
122. Minstrel Manufacturing uses a job order costing system. During one month Minstrel purchased $\$ 198,000$ of raw materials on credit; issued materials to production of $\$ 195,000$ of which $\$ 30,000$ were indirect. Minstrel incurred a factory payroll of $\$ 150,000$, paid in cash, of which $\$ 40,000$ was indirect labor. Minstrel uses a predetermined overhead application rate of $150 \%$ of direct labor cost. Minstrel's beginning and ending Work in Process Inventory are $\$ 15,500$ and $\$ 27,000$ respectively. Compute the cost of product transferred to Finished Goods Inventory:
A. $\$ 558,500$.
B. $\$ 440,000$.
C. $\$ 413,000$.
D. $\$ 428,500$.
E. \$415,000.
$\$ 165,000+\$ 110,000+(\$ 110,000 * 1.5)+15,500-\$ 27,000=\$ 428,500$

AACSB: Analytical Thinking
AICPA: BB Industry
AICPA. FN Measurement
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 3 Hara
Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing.
Topic: Overhead Cost Flows and Documents
123. Finished goods inventory is $\$ 190,000$. If overhead applied to these goods is $\$ 72,000$, and the overhead rate is $120 \%$ of direct labor, how much direct materials cost was incurred in producing the inventory?
A. $\$ 31,600$.
B. $\$ 58,000$.
C. $\$ 56,000$.
D. $\$ 60,000$.
E. $\$ 86,400$.
$\mathrm{DM}+\mathrm{DL}+\mathrm{OH}=$ Total cost
DM $+(\$ 72,000 / 1.20)+\$ 72,000=\$ 190,000$
DM + \$60,000 + \$72,000 = \$190,000; DM = \$58,000

AACSB: Analytical Thinking
AICPA: BB Critical Thinking AICPA: FN Measurement

Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 3 Hara
124. Adams Manufacturing allocates overhead to production on the basis of direct labor costs. At the beginning of the year, Adams estimated total overhead of $\$ 396,000$; materials of $\$ 410,000$ and direct labor of $\$ 220,000$. During the year Adams incurred $\$ 418,000$ in materials costs, $\$ 413,200$ in overhead costs and $\$ 224,000$ in direct labor costs. Compute the overhead application rate.
A. $180 \%$.
B. $55.6 \%$.
C. $186 \%$.
D. $184 \%$.
E. $96.6 \%$.

OH rate $=\$ 396,000 / \$ 220,000=180 \%$
125. Adams Manufacturing allocates overhead to production on the basis of direct labor costs. At the beginning of the year, Adams estimated total overhead of $\$ 396,000$; materials of $\$ 410,000$ and direct labor of $\$ 220,000$. During the year Adams incurred $\$ 418,000$ in materials costs, $\$ 413,200$ in overhead costs and $\$ 224,000$ in direct labor costs. Compute the amount of overhead applied to jobs during the year.
A. $\$ 396,000$.
B. $\$ 424,450$.
C. $\$ 413,190$.
D. $\$ 413,200$.
E. $\$ 403,200$.

OH rate $=\$ 396,000 / \$ 220,000=180 \% ;$ Applied $=\$ 224,000 * 1.8=\$ 403,200$
126. Adams Manufacturing allocates overhead to production on the basis of direct labor costs. At the beginning of the year, Adams estimated total overhead of $\$ 396,000$; materials of $\$ 410,000$ and direct labor of $\$ 220,000$. During the year Adams incurred $\$ 418,000$ in materials costs, $\$ 413,200$ in overhead costs and $\$ 224,000$ in direct labor costs. Compute the amount of underor overapplied overhead for the year.
A. \$10,000 overapplied.
B. $\$ 17,200$ overapplied.
C. $\$ 10,000$ underapplied.
D. $\$ 17,200$ underapplied.
E. $\$ 4,800$ underapplied.

OH rate $=\$ 396,000 / \$ 220,000=180 \%$
Applied $=\$ 224,000$ * $1.8=\$ 403,200 ; \$ 413,200-\$ 403,200=\$ 10,000$ underapplied
127. Using the following accounts and an overhead rate of $130 \%$ of direct labor cost, compute the amount of applied overhead.

| Work in Process Inventory |  |  |  | Finished Goods Inventory |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| DR |  | CR |  | DR |  | CR |  |
| Beg. Bal. | 35,200 |  |  | Beg. Bal. | 5,200 |  |  |
| D.M. | 55,300 |  |  |  | 203,300 |  |  |
| D.L. | $?$ |  |  |  |  |  |  |
| O.H. | ? | F.G. | 203,300 |  |  |  |  |
| End. Bal. | 25,200 |  |  |  |  |  |  |

A. $\$ 78,000$.
B. $\$ 60,000$.
C. $\$ 138,000$.
D. $\$ 71,890$.
E. $\$ 90,500$.
$\$ 35,200+55,300+$ DL + OH $-203,300=\$ 25,200$
DL + OH = \$25,200-35,200-55,300 + 203,300
$\mathrm{DL}+\mathrm{OH}=\$ 138,000 ; \mathrm{DL}+1.3 \mathrm{DL}=\$ 138,000 ; 2.3 \mathrm{DL}=\$ 138,000 ; \mathrm{DL}=\$ 60,000$
$\$ 60,000+\mathrm{OH}=\$ 138,000 ; \mathrm{OH}=\$ 78,000$
128. Portside Watercraft uses a job order costing system. During one month Portside purchased $\$ 153,000$ of raw materials on credit; issued materials to production of $\$ 164,000$ of which $\$ 24,000$ were indirect. Portside incurred a factory payroll of $\$ 95,000$, paid in cash, of which $\$ 25,000$ was indirect labor. Portside uses a predetermined overhead rate of $170 \%$ of direct labor cost. The journal entry to record the issuance of materials to production is:
A. Debit Raw Materials Inventory $\$ 153,000$; credit Accounts Payable $\$ 153,000$.
B. Debit Work in Process Inventory $\$ 140,000$; debit Factory Overhead $\$ 24,000$; credit Raw Materials Inventory \$164,000.
C. Debit Raw Materials Inventory $\$ 195,000$ credit Work in Process Inventory $\$ 195,000$.
D. Debit Work in Process Inventory $\$ 140,000$; debit Raw Materials Inventory $\$ 24,000$; credit Materials Inventory \$164,000.
E. Debit Finished Goods Inventory \$140,000; credit Raw Materials Inventory \$140,000.
129. Portside Watercraft uses a job order costing system. During one month Portside purchased $\$ 153,000$ of raw materials on credit; issued materials to production of $\$ 164,000$ of which $\$ 24,000$ were indirect. Portside incurred a factory payroll of $\$ 95,000$, paid in cash, of which $\$ 25,000$ was indirect labor. Portside uses a predetermined overhead rate of $170 \%$ of direct labor cost. The journal entry to record the allocation of factory payroll to production is:
A. Debit Work in Process Inventory $\$ 95,000$; credit Factory Payroll $\$ 95,000$.
B. Debit Work in Process Inventory $\$ 95,000$; credit Cash $\$ 95,000$.
C. Debit Factory Payroll $\$ 95,000$; credit Cash $\$ 95,000$.
D. Debit Work in Process Inventory $\$ 70,000$; debit Factory Overhead $\$ 25,000$; credit Factory Payroll \$95,000.
E. Debit Work in Process Inventory $\$ 70,000$; debit Factory Overhead $\$ 25,000$; credit Cash \$95,000.

AACSB: Analytical Thinking
AICPA: BB Industry
AICPA. FN Measurement
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 3 Hara
Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing.
Topic: Labor Cost Flows and Documents
130. Portside Watercraft uses a job order costing system. During one month Portside purchased $\$ 153,000$ of raw materials on credit; issued materials to production of $\$ 164,000$ of which $\$ 24,000$ were indirect. Portside incurred a factory payroll of $\$ 95,000$, paid in cash, of which $\$ 25,000$ was indirect labor. Portside uses a predetermined overhead rate of $170 \%$ of direct labor cost. The journal entry to record the application of factory overhead to production is:
A. Debit Work in Process Inventory $\$ 55,800$; credit Factory Overhead $\$ 55,800$.
B. Debit Work in Process Inventory $\$ 161,500$; credit Factory Overhead $\$ 161,500$.
C. Debit Work in Process Inventory \$119,000; credit Factory Overhead \$119,000.
D. Debit Factory Overhead \$119,000; credit Work in Process Inventory \$119,000.
E. Debit Work in Process Inventory \$95,000; credit Factory Payroll \$95,000.
\$70,000 * 1.7 = \$119,000
131. Copy Center pays an average wage of $\$ 12$ per hour to employees for printing and copying jobs, and allocates $\$ 18$ of overhead for each employee hour worked. Materials are assigned to each job according to actual cost. If Job M-47 used \$350 of materials and took 20 hours of labor to complete, what is the total cost that should be assigned to the job?
A. $\$ 590$
B. $\$ 600$
C. $\$ 380$
D. $\$ 950$
E. $\$ 710$

Direct materials \$350 + Direct labor (\$12 * 20) + Factory overhead (\$18 * 20) = $350+\$ 240+$ $\$ 360=\$ 950$
132. Copy Center pays an average wage of $\$ 12$ per hour to employees for printing and copying jobs, and allocates $\$ 18$ of overhead for each employee hour worked. Materials are assigned to each job according to actual cost. Jobs are marked up 20\% above cost to determine the selling price. If Job M-47 used \$350 of materials and took 20 hours of labor to complete, what is the selling price that should be assigned to the job?
A. $\$ 852$
B. $\$ 1,140$
C. $\$ 456$
D. $\$ 720$
E. $\$ 708$

Direct materials \$350 + Direct labor (\$12 * 20) + Factory overhead (\$18 * 20) = \$350 + \$240 + $\$ 360=\$ 950$

Total cost $\$ 950$ * 120\% = \$1,140

## Matching Questions

133. Match the following terms with the appropriate definitions.
134. A source document that production
managers use to request materials needed for manufacturing and that is used to assign materials costs to specific jobs or to Job order costing overhead.
135. A separate record maintained for each job in a job order costing system; it shows the costs of direct materials, direct labor, and overhead for each job.
136. The amount by which the overhead applied to jobs in a period with the predetermined overhead rate exceeds the actual overhead incurred in a period.
137. The production of products in response to special orders; also called customized production.
138. An asset account where costs are accumulated while jobs are being produced.
139. Records manufacturing activities using a perpetual inventory system.
140. The rate established prior to the beginning of a period that relates estimated overhead to an allocation factor such as estimated direct labor and is used to assign overhead cost to a job.
141. An asset account where costs of completed jobs reside until the jobs are delivered to customers.
142. A perpetual record that is updated each

Overapplied
overhead 3

Work In Process Inventory $\underline{5}$

Predetermined
overhead rate 7
Finished Goods
Inventory 8

Materials
requisition 1

Materials ledger
card $\underline{9}$
Time ticket $\underline{11}$
time units of raw material are purchased and issued for use in production.
10. The amount by which actual overhead incurred in a period exceeds the overhead applied to jobs with the predetermined Underapplied
overhead rate. overhead
10
11. A source document that is used to report how much time an employee spent working on a job or on overhead activities and the labor costs to assign to jobs or overhead. Job cost sheet $\underline{2}$

## Short Answer Questions

134. What is a cost accounting system? What are the two basic types of cost accounting systems?

A cost accounting system is an accounting system that uses a perpetual inventory system to continuously update records for costs of materials, work in process, and finished goods inventories. It also provides timely information about inventories and manufacturing costs per unit of product. The two basic types of cost accounting systems are job order costing and process costing.

AACSB: Communication
A/CPA: BB Industry
A/CPA. FN Measurement
Blooms: Understana
Difficulty: 2 Medium
Learning Objective: 02-C1 Describe important features of job order production.
Topic: Job Order Costing
135. Describe the purpose of a job cost sheet, and explain what information is found on the job cost sheet.

A job cost sheet is a separate record that is maintained for each job. The job cost sheet will include the job number, the customer name, and the costs of the job separated into direct materials, direct labor, and overhead.
136. Explain how a service firm, such as an advertising agency, might use job order costing.

Since most jobs in a service firm such as an advertising agency have unique requirements, a job order costing system is appropriate. The service firm would estimate the labor required for each customer order, and then add overhead to the estimated labor based on a predetermined overhead rate. This estimated total cost could be used to prepare a bid for a potential customer. Cost of the job is one factor to consider when determining a potential selling price (bid) for a service.
AACSB: Communication
AICPA: BB Industry
AICPA: FN Decision Making
Blooms: Understana
Difficulty: 2 Medium
Learning Objective: 02-A1 Apply job order costing in pricing services.
Topic: Pricing for Services
137. Describe how materials flow through a job order costing system, and identify the key documents in the system.

When materials are received from suppliers, they are inspected and counted, and the information is recorded on a receiving report. The materials ledger card is a perpetual record that keeps track of each item of raw materials. When materials are needed for production, a materials requisition is prepared and the materials are issued into production. Direct materials are added to the job cost sheet. Indirect materials are added to overhead.
138. Describe the flow of the raw materials, both direct and indirect, through the inventory accounts from purchase to use.

When raw materials are purchased, the cost is debited to Raw Materials Inventory. When materials are requisitioned for use, the direct materials are moved from Raw Materials Inventory to Work In Process Inventory and the indirect materials are moved from Raw Materials Inventory to the Factory Overhead account.

AACSB: Communication
A/CPA: BB Industry
A/CPA: FN Measurement
Blooms: Understana
Difficulty: 2 Medium
Learning Objective: 02-P1 Describe and record the flow of materials costs in job order costing.
Topic: Materials Cost Flows and Documents
139. Describe the flow of labor costs in a job order costing system, and identify the documents used in the system.

Labor costs are classified as either direct or indirect. The flow of direct labor costs in a job order costing system begins by employee tracking their hours worked to specific jobs using time tickets. Employees who perform work classified as indirect labor also use time tickets, but their work is not assigned to individual jobs, but to overhead.
140. Describe the flow of the employee labor, both direct and indirect, through the inventory accounts.

Direct labor is assigned to jobs using time tickets and is recorded in Work In Process Inventory as it is incurred. The indirect labor that comes from time tickets or salary contracts is recorded in the Factory Overhead account.

Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing. Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing.

Topic: Labor Cost Flows and Documents
Topic: Overhead Cost Flows and Documents
141. Explain what a predetermined overhead rate is, how it is calculated, and why it is used.

A predetermined overhead rate is used to apply factory overhead costs to jobs produced during the period. It is calculated by dividing estimated overhead costs for a period by an allocation factor such as estimated direct labor hours. It is used because overhead costs benefit all jobs and cannot be directly related to any one job. In addition, the perpetual inventory system requires an estimate of overhead for timeliness of information for decision making.

AACSB: Communication AICPA: BB Industry
142. Explain why the Factory Overhead account for a company may have a difference between the amount debited and credited at the end an accounting period before adjustment.

If a company incurs more actual overhead than it applies to jobs during the period, the Factory Overhead will have an ending debit balance. If a company applies move overhead to jobs than it actually incurs, Factory Overhead will have an ending credit balance.
143. Briefly describe how manufacturing firms dispose of overapplied or underapplied factory overhead.

If overapplied or underapplied overhead is immaterial, the amount of under- or overapplied overhead is closed entirely to cost of goods sold. If the amount is material, it is allocated between cost of goods sold, finished goods inventory, and work in process inventory.

AACSB: Communication
AICPA: BB Industry
AICPA: FN Measurement
Blooms: Understana

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## Essay Questions

144. The Merker Manufacturing Company has the following job cost sheets on file. They represent jobs that have been worked on during April of the current year. This table summarizes information provided on each sheet:

| Number | Total Cost Incurred | Status of Job |
| :---: | ---: | :--- |
| 544 | $\$ 15,050$ | Finished and delivered |
| 545 | $\$ 22,400$ | Finished and delivered |
| 546 | $\$ 7,500$ | Finished and unsold |
| 547 | $\$ 4,300$ | Finished and delivered |
| 548 | $\$ 33,000$ | Unfinished |
| 549 | $\$ 62,000$ | Finished and unsold |
| 550 | $\$ 14,600$ | Unfinished |
| 551 | $\$ 22,200$ | Finished and delivered |
| 552 | $\$ 3,600$ | Finished and unsold |
| 553 | $\$ 1,000$ | Unfinished |

(a) What is the cost of goods sold for the month of April?
(b) What is the cost of the Work in Process inventory on April 30?
(c) What is the cost of the finished goods inventory on April 30?
(a) Cost of goods sold for April:

| Number | Total Cost Incurred | Status of Job |
| :---: | ---: | :--- |
| 544 | $\$ 15,050$ | Finished and delivered |
| 545 | $\$ 22,400$ | Finished and delivered |
| 547 | $\$ 4,300$ | Finished and delivered |
| 551 | 22,200 | Finished and delivered |
| Total | $\$ 63,950$ |  |

(b) Cost of the Work in Process inventory on April 30:

| Number | Total Cost Incurred | Status of Job |
| :---: | ---: | :--- |
| 548 | 33,000 | Unfinished |
| 550 | $\$ 14,600$ | Unfinished |
| 553 | 1,000 | Unfinished |
| Total | $\$ 48,600$ |  |

(c) Cost of the finished goods inventory on April 30:

| Number | Total Cost Incurred | Status of Job |
| :---: | ---: | :--- |
| 546 | $\$ 7,500$ | Finished and unsold |
| 549 | 62,000 | Finished and unsold |
| 552 | $\underline{3,600}$ | Finished and unsold |
| Total | $\underline{\$ 73,100}$ |  |

145. The Luna Manufacturing Company has the following job cost sheets on file. They represent jobs that have been worked on during September of the current year. This table summarizes information provided on each sheet:

| Number | Total Cost Incurred | Status of Job |
| :---: | ---: | :--- |
| 951 | $\$ 4,200$ | Finished and delivered |
| 952 | $\$ 7,700$ | Unfinished |
| 953 | $\$ 9,300$ | Finished and unsold |
| 954 | $\$ 11,100$ | Finished and delivered |
| 955 | $\$ 3,000$ | Finished and unsold |
| 956 | $\$ 5,500$ | Finished and delivered |
| 957 | $\$ 35,000$ | Unfinished |
| 958 | $\$ 3,200$ | Finished and delivered |
| 959 | $\$ 500$ | Unfinished |
| 960 | $\$ 22,110$ | Unfinished |
| 961 | $\$ 7,200$ | Finished and delivered |
| 962 | $\$ 8,500$ | Unfinished |
| 963 | $\$ 11,200$ | Finished and unsold |

(a) What is the cost of the Work in Process inventory on September 30?
(b) What is the cost of the finished goods inventory on September 30?
(c) What is the cost of goods sold for the month of September?
(a) Cost of the Work in Process inventory on September 30:

| Number | Total Cost Incurred | Status of Job |
| :---: | ---: | :--- |
| 952 | $\$ 7,700$ | Unfinished |
| 957 | 35,000 | Unfinished |
| 959 | 500 | Unfinished |


| 960 | 22,110 | Unfinished |
| :---: | ---: | ---: |
| 962 | $\underline{8,500}$ | Unfinished |
| Total | $\underline{\$ 73,810}$ |  |

(b) Cost of the finished goods inventory on September 30:

| Number | Total Cost Incurred | Status of Job |
| :---: | ---: | :--- |
| 953 | $\$ 9,300$ | Finished and unsold |
| 955 | 3,000 | Finished and unsold |
| 963 | $\underline{11,200}$ | Finished and unsold |
| Total | $\underline{\$ 23,500}$ |  |

(c) Cost of goods sold for September:

| Number | Total Cost Incurred | Status of Job |
| :---: | ---: | :--- |
| 951 | $\$ 4,200$ | Finished and delivered |
| 954 | 11,100 | Finished and delivered |
| 956 | 5,500 | Finished and delivered |
| 958 | 3,200 | Finished and delivered |
| 961 | 7,200 | Finished and delivered |
| Total | $\underline{\$ 31,200}$ |  |

AACSB: Analytical Thinking
AICPA: BB Industry
AICPA: FN Measurement
Blooms: Apply
Difficulty: 3 Hara

Topic: Job Cost Sheet
146. Chung Corporation uses a job order costing system. Five jobs were worked on during the current year. The predetermined overhead rate is $20 \%$ of direct labor costs. The following cost information is available (all materials and time ticket information applies to direct costs):

| Job | Materials Requisitions | Time Tickets |
| ---: | ---: | ---: |
| 101 | $\$ 66,000$ | $\$ 32,000$ |
| 102 | $\$ 63,000$ | $\$ 74,000$ |
| 103 | $\$ 39,000$ | $\$ 50,000$ |
| 104 | $\$ 32,000$ | $\$ 36,000$ |
| 105 | $\$ 53,000$ | $\$ 68,000$ |

Part 1-Complete the job cost sheets for each job.

| Job No. 101 | Job No. 102 |  |  | Job No. 103 |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Materials | Materials |  | Materials |  |  |
| Labor | Labor |  | Labor |  |  |
| Overhead |  | Overhead |  | Overhead |  |
| Total Cost |  | Total Cost |  | Total Cost |  |
| Status | In Process | Status | Sold | Status | Finished |


| Job No. 104 |  |  | Job No. 105 |  |
| :--- | :--- | :--- | :--- | :---: |
| Materials |  | Materials |  |  |
| Labor |  | Labor |  |  |
| Overhead |  | Overhead |  |  |
| Total Cost |  | Total Cost |  |  |
| Status | Sold | Status | Finished |  |

Part 2-Identify the amounts of each of the following accounts at the end of the period
a. Work in Process $\qquad$
b. Finished Goods $\qquad$
c. Cost of Goods Sold $\qquad$

Part 1

| Job No. 101 |  |  | Job No. 102 |  |  |
| :--- | ---: | :--- | ---: | :--- | ---: |
| Materials | $\$ 66,000$ | Materials | $\$ 63,000$ | Materials | $\$ 39,000$ |
| Labor | $\$ 32,000$ | Labor | $\$ 74,000$ | Labor | $\$ 50,000$ |
| Overhead | $\$ 6,400$ | Overhead | $\$ 14,800$ | Overhead | $\$ 10,000$ |
| Total Cost | $\$ 104,400$ | Total Cost | $\$ 151,800$ | Total Cost | $\$ 99,000$ |
| Status | In Process | Status | Sold | Status | Finished |


| Job No. 104 |  | Job No. 105 |  |
| :--- | ---: | ---: | ---: |
| Materials | $\$ 32,000$ | Materials | $\$ 53,000$ |
| Labor | $\$ 36,000$ | Labor | $\$ 68,000$ |
| Overhead | $\$ 7,200$ | Overhead | $\$ 13,600$ |
| Total Cost | $\$ 75,200$ | Total Cost | $\$ 134,600$ |
| Status | Sold | Status | Finished |

## Part 2

a. Work in Process: $\$ 104,400$ (Job 101)
b. Finished Goods: $\$ 233,600$ (Job 103 \& Job 105)
c. Cost of Goods Sold: $\$ 227,000$ (Job 102 \& Job 104)
147. The following data relates to the Mass Company's first operating period. Calculate the total cost of goods sold for each product.

|  | Cost/unit |  | Units |  | Overhead rate <br> (Percent of |
| :---: | ---: | ---: | ---: | ---: | ---: |
| Product | Direct <br> Materials | Direct | Labor | Produced | Ending <br> Inventory |
| A | $\$ 10$ | $\$ 12$ | 215 | 115 | $60 \%$ |
| B | 8 | 15 | 330 | 180 | $40 \%$ |
| C | 14 | 10 | 250 | 200 | $80 \%$ |


|  | $\mathbf{A}$ | $\mathbf{B}$ | $\mathbf{C}$ |
| :--- | ---: | ---: | ---: |
| Direct materials | $\$ 10.00$ | $\$ 8.00$ | $\$ 14.00$ |
| Direct labor | 12.00 | 15.00 | 10.00 |
| Overhead* | 7.20 | 6.00 | 8.00 |
| Total cost | $\$ 29.20$ | $\$ 29.00$ | $\$ 32.00$ |
| Units sold** | $\times 100$ | $\times 150$ | $\times 50$ |
| Cost of goods sold | $\$ 2,920$ | $\$ 4,350$ | $\$ 1,600$ |

*Overhead applied:
A: $\$ 12.00$ * $60 \%=\$ 7.20 ;$ B: $\$ 15.00$ * 40\% = \$6.00; C: \$10.00 * 80\% = \$8.00
**Units sold:
A: 215 produced -115 in ending inventory $=100$ sold
B: 330 produced -180 in ending inventory $=150$ sold
C: 250 produced -200 in ending inventory $=50$ sold
148. Southwick Company uses a job order costing system. On November 1, \$15,000 of direct materials and $\$ 3,500$ of indirect materials were requisitioned for production. Prepare the general journal entries to record this requisition.

| $11 / 1$ | Work in Process <br> inventory | 15,000 |  |
| :--- | :--- | :--- | :--- |
|  | Raw materials <br> inventory | 15,000 |  |
|  | Factory overhead | 3,500 |  |
|  | Raw materials <br> inventory | 3,500 |  |

149. A company that uses a job order costing system incurred $\$ 10,000$ of factory payroll during May. Present the May 31 entry assuming $\$ 8,000$ is direct labor and $\$ 2,000$ is indirect labor.

| May <br> 31 | Work in Process <br> inventory | 8,000 |  |
| :--- | :--- | :--- | :--- |
|  | Factory Wages <br> Payable |  | 8,000 |
|  | Factory overhead | 2,000 |  |
| Factory Wages <br> Payable | 2,000 |  |  |

150. Time tickets for factory employees during the month of August are summarized as follows:

| Job 919 | $\$ 9,800$ |
| :--- | ---: |
| Job 920 | 14,650 |
| Job 921 | 12,250 |
| Job 922 | $\underline{16,000}$ |
| Total direct labor | $\$ 52,700$ |
| Indirect labor | $\underline{16,800}$ |
| Total labor cost | $\underline{\$ 69,500}$ |

Make the necessary journal entries to record factory payroll for direct and indirect labor.

| Work in Process | 52,700 |  |
| :--- | :--- | :--- |
| Factory Wages <br> Payable |  | 52,700 |
| Factory Overhead | 16,800 |  |
| Factory Wages <br> Payable | 16,800 |  |

151. Chumley Advertising Agency contracted with a company to prepare an ad campaign. Chumley uses a job order costing system. Chumley estimates that the job will take 140 designer hours at $\$ 90$ per hour and 85 staff hours at $\$ 45$ per hour. Chumley uses two overhead rates in applying overhead to jobs: Designer-related at $\$ 100$ per designer hour and staff-related at $\$ 50$ per staff hour. Determine the total estimated cost for this job.

| Direct labor: |  |  |
| :--- | ---: | ---: |
| Designers (140 hours @ \$90 per hour) | $\$ 12,600$ |  |
| Staff (85 hours @ \$45 per hour) | 3,825 |  |
| Total direct labor |  | $\$ 16,425$ |
| Overhead: |  |  |
| Designer-related (140 hours @ \$100 per hour) | $\$ 14,00$ |  |
| Staff-related (85 hours @ \$50 per hour) | 4,250 |  |
| Total overhead |  | 18,250 |
| Total estimated cost |  | $\$ 34,675$ |

AACSB: Analytical Thinking
AICPA: BB Industry
AICPA: FN Measurement
Blooms: Apply
Difficulty: 3 Hara
Learning Objective: 02-A1 Apply job order costing in pricing services.
Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing. Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing.

Topic: Labor Cost Flows and Documents
Topic: Overhead Cost Flows and Documents
Topic: Pricing Services in a Job Order Cost System
152. KL Company uses a job order costing system. During the month of July, the following events occurred:
(a) Purchased raw materials on credit, $\$ 32,000$.
(b) Raw materials requisitioned: $\$ 25,800$ as direct materials and $\$ 10,500$ indirect materials.
(c) Assigned the factory payroll totaling $\$ 37,700$, which includes $\$ 8,200$ indirect labor, to jobs and overhead.

Make the necessary journal entries to record the above transactions and events.

| (a) | Raw Materials <br> Inventory | 32,000 |  |
| :--- | :--- | :--- | :--- |
|  | Accounts Payable |  | 32,000 |
| (b) | Work in Process <br> Inventory | 25,800 |  |
|  | Raw Materials <br> Inventory |  | 25,800 |
|  | Factory Overhead | 10,500 |  |
|  | Raw Materials <br> Inventory | 20,500 |  |
| (c) | Work in Process <br> Inventory | 29,500 |  |
|  | Factory Wages <br> Payable | 29,500 |  |
| Factory Overhead | 8,200 |  |  |
| Factory Wages <br> Payable | 8,200 |  |  |

Learning Objective: 02-P1 Describe and record the flow of materials costs in job order costing. Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing.

Topic: Labor Cost Flows and Documents
Topic: Materials Cost Flows and Documents
153. EXP, Inc. had the following activities during its most recent period of operations:
(a) Purchased raw materials on account for $\$ 140,000$ (both direct and indirect materials are recorded in the Raw Materials Inventory account).
(b) Issued raw materials to production of $\$ 130,000$ ( $80 \%$ direct and $20 \%$ indirect).
(c) Incurred factory labor costs of $\$ 250,000$; allocated the factory labor costs to production (70\% direct and 30\% indirect).
(d) Incurred factory utilities costs of $\$ 20,000$; this amount is still payable.
(e) Applied overhead at $80 \%$ of direct labor costs.
(f) Recorded factory depreciation, $\$ 22,000$.

Prepare journal entries to record the above transactions.

| (a) | Raw Materials <br> Inventory | 140,000 |  |
| :--- | :--- | :--- | :--- |
|  | Accounts <br> Payable |  | 140,000 |
| (b) | Work in Process <br> Inventory | 104,000 |  |
|  | Raw <br> Materials <br> Inventory | 104,000 |  |
|  | Factory Overhead | 26,000 | Raw <br> Materials <br> Inventory |
| (c) | Work in Process <br> Inventory | 175,000 | 26,000 |
|  | Factory <br> Wages Payable | 175,000 |  |


|  | Factory Overhead | 75,000 |  |
| :--- | :--- | :--- | :--- |
|  | Factory <br> Wages Payable |  | 75,000 |
| (d) | Factory Overhead | 20,000 |  |
|  | Accounts <br> Payable |  | 20,000 |
| (e) | Work in Process <br> Inventory | 140,000 |  |
|  | Factory <br> Overhead <br> (\$175,000 * 80\% <br> $=\$ 140,000)$ | 140,000 |  |
| (f) | Factory Overhead | 22,000 | Accumulated <br> Depreciation- <br> Factory |

AACSB: Analytical Thinking
A/CPA: BB Industry
A/CPA: FN Measurement
Blooms: Apply
Difficulty: 3 Hara
Learning Objective: 02-P1 Describe and record the flow of materials costs in job order costing. Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing. Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing.

Topic: Labor Cost Flows and Documents
Topic: Materials Cost Flows and Documents
Topic: Overhead Cost Flows and Documents
154. Lock Production Co. applies factory overhead to production on the basis of direct labor costs. Assume that at the beginning of the current year the company estimated that direct material costs would be $\$ 178,800$, direct labor costs would be $\$ 154,000$, and factory overhead costs would be $\$ 231,000$.
(1) If the $\$ 28,000$ cost of Lock's Work in Process inventory included $\$ 5,200$ of direct labor cost, what amount of direct materials cost was included?
(2) If $\$ 8,100$ of the company's $\$ 34,300$ finished goods inventory was direct materials cost, determine the direct labor cost and factory overhead cost of the finished goods inventory.

| $(1)$ | Overhead rate: $(\$ 231,000 / \$ 154,000)=150 \%$ |  |  |
| :--- | :--- | ---: | ---: |
|  | Total cost of Work in Process inventory |  | $\$ 28,000$ |
|  | Deduct: Direct labor | $\$ 5,200$ |  |
|  | Factory overhead $(\$ 5,200 * 150 \%)$ | 7,800 | $-13,000$ |
|  | Direct materials |  | $\$ 15,000$ |
| $(2)$ | The overhead rate is $150 \% .($ part 1$)$ |  |  |
|  | Total cost of finished goods inventory | $\$ 34,300$ |  |
|  | Direct materials | $\boxed{8,100}$ |  |
|  | Direct labor and factory overhead costs | $\$ 26,200$ |  |

Direct labor +1.5 (Direct Labor) $=\$ 26,200$
Direct Labor $=\$ 10,480$

OH = DL * 1.5
$\mathrm{OH}=\$ 10,480$ * 1.5
$\mathrm{OH}=\$ 15,720$

Learning Objective: 02-P1 Describe and record the flow of materials costs in job order costing. Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing. Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing.

Topic: Labor Cost Flows and Documents
Topic: Materials Cost Flows and Documents
Topic: Overhead Cost Flows and Documents
155. Prepare journal entries to record the following transactions and events for April using a job order costing system.
(a) Purchased raw materials on credit, $\$ 69,000$.
(b) Raw materials requisitioned: $\$ 26,000$ direct and $\$ 5,400$ indirect.
(c) Factory payroll totaled $\$ 46,000$, including $\$ 9,500$ indirect labor.
(d) Paid other actual overhead costs totaling $\$ 14,500$ cash.
(e) Applied overhead totaling $\$ 28,200$.
(f) Finished and transferred jobs totaling $\$ 77,500$.
(g) Jobs costing $\$ 58,800$ were sold on credit for $\$ 103,000$.

| (a) | Raw Materials <br> Inventory | 69,000 |  |
| :--- | :--- | :--- | :--- |
|  | Accounts <br> Payable |  | 69,000 |
| (b) | Work in Process <br> Inventory | 26,000 |  |
|  | Raw Materials <br> Inventory | 26,000 |  |
|  | Factory Overhead | 5,400 | 5,400 |
| Raw Materials <br> Inventory | 36,500 |  |  |
| (c) | Work in Process <br> Inventory | Factory Wages <br> Payable | 36,500 |
|  | Factory Overhead | 9,500 |  |
|  | Factory Wages <br> Payable | 9,500 |  |
| (d) | Factory Overhead | 14,500 |  |

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|  | Cash |  | 14,500 |
| :--- | :--- | :--- | :--- |
| (e) | Work in Process <br> Inventory | 28,200 |  |
|  | Factory <br> Overhead | 28,200 |  |
| (f) | Finished Goods <br> Inventory | 77,500 | 77,500 |
|  | Work in Process <br> Inventory | 103,000 | 103,000 |
| (g) | Accounts <br> Receivable | Sales |  |
|  | Cost of Goods <br> Sold | 58,800 | 58,800 |
|  | Finished Goods <br> Inventory |  |  |

AACSB: Analytical Thinking
AICPA. BB Industry
AICPA: FN Measurement
Blooms: Apply
Difficulty: 3 Hara
Learning Objective: 02-P1 Describe and record the flow of materials costs in job order costing.
Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing. Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing.

Topic: Labor Cost Flows and Documents
Topic: Materials Cost Flows and Documents
Topic: Overhead Cost Flows and Documents
156. A company's ending inventory of finished goods has a cost of $\$ 45,000$ and consists of 750 units. If the overhead applicable to these goods is $\$ 8,400$, and overhead is applied at the rate of $60 \%$ of direct labor, what is the cost of the direct materials used to produce these units?

| Factory overhead in finished <br> goods inventory | $\$ 8,400$ |
| :--- | :---: |
| Direct labor in finished goods <br> inventory $(\$ 8,400 / 0.60)$ | 14,000 |
| Total factory overhead and <br> direct labor | 22,400 |
| Total job cost | $\$ 45,000$ |
| Factory overhead and direct <br> labor | $\underline{22,400}$ |
| Direct materials | $\$ 2,600$ |

AACSB: Analytical Thinking AICPA: BB Industry

A/CPA: FN Measurement
Blooms: Apply
Difficulty: 3 Hara
Learning Objective: 02-P1 Describe and record the flow of materials costs in job order costing. Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing. Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing.

Topic: Labor Cost Flows and Documents Topic: Materials Cost Flows and Documents Topic: Overhead Cost Flows and Documents
157. The production of one unit of Product BJM used $\$ 27.50$ of direct materials and $\$ 21.00$ of direct labor. The unit sold for $\$ 76.00$ and was assigned overhead at a rate of $30 \%$ of labor costs. What is the gross profit per unit on its sale?

| Selling price per unit |  | $\$ 76.00$ |
| :--- | ---: | ---: |
| Direct materials | $\$ 27.50$ |  |
| Direct labor | 21.00 |  |
| Overhead applied <br> $\$ 21 * .3)$ | 6.30 |  |
| Total job cost per unit |  | 54.80 |
| Gross profit per unit |  | $\$ 21.20$ |

158. A company uses a job order costing system and applies overhead on the basis of direct labor cost. A summary of the company's Work in Process Inventory account for December appears below.

| Work in Process |  |  |  |  |  |  |
| :--- | :--- | :---: | ---: | ---: | ---: | :---: |
| Date | Explanation | PR | Debit | Credit | Balance |  |
| Dec. 1 |  |  |  |  | 73,800 |  |
| Dec. | Direct Materials | G-20 | 235,800 |  | 309,600 |  |
| Dec. | Direct Labor | G-20 | 117,000 |  | 426,600 |  |
| Dec. | Factory Overhead | G-20 | 187,200 |  | 613,800 |  |
| Dec. | Job No. 5 completed | G-8 |  | 90,900 | 522,900 |  |
| Dec. | Job No. 6 completed | G-10 |  | 131,400 | 391,500 |  |
| Dec. | Job No. 7 completed | G-12 |  | 73,800 | 317,700 |  |
| Dec. 31 | Job No. 8 completed | G-15 |  | 168,300 | 149,400 |  |

Fill in the blanks for the following:
(1) The total cost of the direct materials, direct labor, and factory overhead applied in the December 31 Work in Process inventory is $\qquad$ .
(2) The company's overhead application rate is $\qquad$ $\%$.
(3) Job No. 6 had $\$ 26,550$ of direct labor cost. Therefore, the job must have had $\qquad$ of direct materials cost.
(4) Job No. 8 had $\$ 73,998$ of direct materials cost. Therefore, the job must have had $\qquad$ of factory overhead cost.
(1) $\$ 149,400$ (ending balance of account)
(2) $(\$ 187,200 / \$ 117,000) * 100 \%=\underline{160 \%}$
(3) $\$ 26,550 * 160 \%=\$ 42,480 ; \$ 131,400-\$ 26,550-\$ 42,480=\$ 62,370$
(4) $\$ 168,300-\$ 73,998=\$ 94,302$ Direct labor $+\mathrm{OH} ; \$ 94,302 / 2.60=\$ 36,270$
$\mathrm{OH}=\$ 94,302-\$ 36,270=\$ 58,032$

Learning Objective: 02-P1 Describe and record the flow of materials costs in job order costing.
Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing. Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing.

Topic: Labor Cost Flows and Documents
Topic: Materials Cost Flows and Documents Topic: Overhead Cost Flows and Documents
159. Heintz Company's job order costing system applies overhead based on direct labor costs. The company's manufacturing costs for the current year were: direct materials, $\$ 108,000$; direct labor, $\$ 144,000$; and factory overhead, $\$ 36,000$. At year-end, the total cost of Work in Process is $\$ 38,000$, which includes $\$ 12,000$ of direct labor cost. What amount of direct material cost is included in the ending Work in Process inventory?

| Direct labor in Work in Process inventory | $\$ 12,000$ |
| :--- | ---: |
| Factory overhead in Work in Process inventory $(\$ 12,000 * .25)$ | 3,000 |
| Total factory overhead and direct labor | 15,000 |
| Total cost in Work in Process inventory | $\$ 38,000$ |
| Factory overhead and direct labor | $-15,000$ |
| Direct materials | $\underline{\$ 23,000}$ |
| Overhead rate $=\$ 36,000 / \$ 144,000=.25 \%$ |  |

AACSB: Analytical Thinking
AICPA: BB Industry
A/CPA. FN Measurement
Blooms: Apply
Difficulty: 3 Hara

Learning Objective: 02-P1 Describe and record the flow of materials costs in job order costing.
Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing. Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing.

Topic: Labor Cost Flows and Documents
Topic: Materials Cost Flows and Documents
Topic: Overhead Cost Flows and Documents

MOB Corp. maintains an internet-based general ledger. Overhead is applied on the basis of direct labor costs. Its bookkeeper accidentally deleted most of the entries that had been recorded for January. A printout of the general ledger (in T-account form) showed the following:


A review of the prior year's financial statements, the current year's budget, and January's source documents produced the following information:
(1) Accounts Payable is used for raw material purchases only. January purchases were $\$ 49,000$.
(2) Factory overhead costs for January were $\$ 17,000$ none of which is indirect materials.
(3) The January 1 balance for finished goods inventory was $\$ 10,000$.
(4) There was a single job in process at January 31 with a cost of $\$ 2,000$ for direct materials and \$1,500 for direct labor.
(5) Total cost of goods manufactured for January was $\$ 90,000$.
(6) All direct laborers earn the same rate (\$13/hour). During January, 2,500 direct labor hours
were worked.
(7) The predetermined overhead rate is based on direct labor costs. Budgeted (expected) overhead for the year is $\$ 195,000$ and budgeted (expected) direct labor is $\$ 390,000$.

Fill in the missing amounts a through o above in the T -accounts above.

| Raw Materials Inventory |  |  |  | Work in Process Inventory |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DR |  | CR |  | DR |  | CR |  |
| Bal. 1/1 | 10,000 |  |  | Bal. 1/1 | 4,000 |  |  |
| a) | 49,000 | b) | 41,500 | c) DM | 41,500 |  |  |
|  |  |  |  | d) DL | 32,500 |  |  |
|  |  |  |  | e) OH | 16,250 | g) <br> COGM | 90,000 |
|  | 17,500 |  |  | f) | 4,250 |  |  |
| Accounts Payable |  |  |  |  | Finished Goods Inventory |  |  |
| DR |  | CR |  | DR |  | CR |  |
| h) | 45,000 | Bal. 1/1 | 5,000 | j) Bal. <br> 1/1 | 10,000 |  |  |
|  |  | i) | 49,000 |  |  |  |  |
|  |  |  |  | $\begin{aligned} & \mathrm{k}) \\ & \mathrm{COGM} \end{aligned}$ | 90,000 | i) | 85,000 |
|  |  | Bal. 1/31 | 9,000 | Bal. 1/31 | 15,000 |  |  |
| Factory Overhead |  |  |  | Cost of Goods Sold |  |  |  |
| DR |  | CR |  | DR |  | CR |  |
| m) OH | 17,000 | n) OH | 16,250 | o) | 85,000 |  |  |
| (actual) |  | (applied) |  |  |  |  |  |

161. Chen Service applied overhead on the basis of direct labor costs during the current year. Overhead applied was $\$ 16,500$. Actual overhead incurred was $\$ 17,200$.
(a) Prepare a journal entry to remove this difference assuming that it is not material.
(b) Instead, assume actual overhead incurred was $\$ 24,000$. Describe (without computations)
the alternative procedure that Chen might assuming this difference is material.

| (a) | Cost of Goods Sold | 700 |  |
| :--- | ---: | ---: | ---: |
|  | Factory overhead |  | 700 |

(b) Since the $\$ 7,500$ difference is material, it should be allocated among Cost of Goods Sold, Finished Goods Inventory and Work in Process Inventory.

> AACSB: Analytical Thinking AICPA: BB Industry
> AICPA: FN Measurement
> Blooms: Apply
> Difficulty: 3 Hara

Learning Objective: 02-P4 Determine adjustments for overapplied and underapplied factory overhead.
Topic: Underapplied or Overapplied Overheaa
162. Calwell Corp. uses a job order costing system. Four jobs were started during the current year. The following is a record of the costs incurred:

| Job \# | Material <br> Used | Direct Labor <br> Used | Direct Labor <br> Hours Used |
| :---: | ---: | ---: | ---: |
| 1010 | $\$ 45,000$ | $\$ 72,000$ | 8,000 |
| 1011 | 59,000 | 77,000 | 7,000 |
| 1012 | 35,000 | 30,000 | 3,000 |
| 1013 | 26,000 | 40,000 | 5,000 |

Actual overhead costs were $\$ 55,800$. The predetermined overhead rate is $\$ 2.40$ per direct labor hour. During the year, Jobs 1010, 1012, and 1013 were completed. Also, Jobs 1010 and 1013 were sold for $\$ 387,000$. Assuming that this is Calwell's first year of operations:
(a) Make the necessary journal entries to charge the costs to the jobs started and to record the completion and sale of finished jobs.
(b) Calculate the balance in the Work in Process Inventory, Finished Goods Inventory, and Factory Overhead accounts. Does the Factory Overhead account balance indicate an over- or underapplied overhead?

| Job <br> No. | Direct <br> materials | Direct <br> labor | Overhead <br> applied* | Total job <br> cost |
| :--- | ---: | ---: | ---: | ---: |
| 1010 | $\$ 45,000$ | $\$ 72,000$ | $\$ 19,200$ | $\$ 136,200$ |
| 1011 | 59,000 | 77,000 | 16,800 | 152,800 |
| 1012 | 35,000 | 30,000 | 7,200 | 72,200 |
| 1013 | $\underline{26,000}$ | $\underline{40,000}$ | $\underline{12,000}$ | $\underline{78,000}$ |
| Totals | $\underline{\$ 165,000}$ | $\underline{\$ 219,000}$ | $\underline{\$ 55,200}$ | $\underline{\$ 439,200}$ |

Job 1010: 8,000 hours * $\$ 2.40 /$ hour $=\$ 19,200$
Job 1011: 7,000 hours * $\$ 2.40 /$ hour $=\$ 16,800$

```
Job 1012: 3,000 hours * \(\$ 2.40 /\) hour \(=\$ 7,200\)
```

Job 1013: 5,000 hours * $\$ 2.40 /$ hour $=\$ 12,000$
(a)

| Work in Process Inventory | 165,000 |  |
| :--- | ---: | ---: |
| Raw Materials Inventory |  | 165,000 |
| Work in Process Inventory | 219,000 |  |
| Factory Wages Payable |  | 219,000 |
| Work in Process Inventory | 55,200 |  |
| Factory Overhead | 286,400 |  |
| Finished Goods Inventory |  | 286,400 |
| Work in Process Inventory | 214,200 |  |
| $(\$ 136,200+\$ 72,200+\$ 78,000)=\$ 286,400$ |  | 214,200 |
| Cost of Goods Sold |  |  |
| Finished Goods Inventory | 387,000 |  |
| $(\$ 136,200+\$ 78,000=\$ 214,200)$ |  | 387,000 |
| Accounts Receivable |  |  |
| Sales |  |  |


| (b) | Work in Process Inventory: Job <br> 1011 | $\$ 152,800$ |  |
| :--- | :--- | ---: | :--- |
|  | Finished Goods: Job 1012 | $\$ 72,200$ |  |
|  | Factory Overhead: |  |  |
|  | Applied | $\$ 55,200$ |  |
|  | Actual | $\underline{55,800}$ |  |
|  |  | $\underline{\$ 600}$ | debit balance |
| (underapplied) |  |  |  |

Learning Objective: 02-P1 Describe and record the flow of materials costs in job order costing.
Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing. Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing. Learning Objective: 02-P4 Determine adjustments for overapplied and underapplied factory overhead.

Topic: Labor Cost Flows and Documents
Topic: Materials Cost Flows and Documents
Topic: Overhead Cost Flows and Documents
Topic: Underapplied or Overapplied Overheaa

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163. The following information is available for the Annum Corporation for the current year:

| Cost of goods sold | $\$ 292,000$ |
| :--- | ---: |
| Depreciation of factory equipment | 25,200 |
| Direct labor | 64,750 |
| Finished goods inventory, Beginning-year | 45,000 |
| Factory insurance | 11,200 |
| Factory utilities | 16,800 |
| Goods transferred from Work in Process Inventory to Finished <br> Goods Inventory | 285,150 |
| Indirect labor | 8,400 |
| Raw materials inventory, Beginning-year | 4,200 |
| Raw materials purchased | 116,200 |
| Raw materials used in production (includes $\$ 7,000$ of indirect <br> materials) | 121,800 |
| Rent on factory building | 22,400 |

Annum Company uses a predetermined overhead rate of $150 \%$ of direct labor cost. Prepare journal entries for the following transactions and events:
(a) Purchase of raw materials on account.
(b) Assignment of materials costs to Work in Process Inventory and Factory Overhead.
(c) Assignment of Factory Payroll to Work in Process Inventory and Factory Overhead.
(d) Recording of other factory overhead. Assume that all items other than depreciation are paid in cash.
(e) Assignment of Factory Overhead to Work in Process Inventory.
(f) Transfer of goods completed to Finished Goods Inventory.
(g) Recording cost of goods sold.
(h) Assignment of over- or underapplied overhead to Cost of Goods Sold.

| a. | Raw Materials Inventory | 116,200 |  |
| :--- | :--- | ---: | ---: |
|  | Accounts Payable |  | 116,200 |
| b. | Work in Process Inventory | 114,800 |  |
|  | Raw Materials Inventory |  | 114,800 |
|  | Factory Overhead | 7,000 |  |
|  | Raw Materials Inventory |  | 7,000 |
| c. | Work in Process Inventory | 64,750 |  |
|  | Factory Wages Payable |  | 64,750 |
|  | Factory Overhead |  |  |
|  | Factory Wages Payable | 75,600 |  |
| d. | Factory Overhead |  | 25,400 |
|  | Accumulated Depreciation-factory equipment. |  | 50,400 |
|  | Cash | 97,125 |  |
| e. | Work in Process Inventory |  | 97,125 |
|  | Factory Overhead (64,750 * 150\%) | 285,150 |  |
| f. | Finished Goods Inventory |  | 285,150 |
|  | Work in Process Inventory | 6,125 |  |
| g. | Cost of Goods Sold | 292,000 |  |
|  | Finished Goods Inventory |  | 6,125 |
| h. | Factory Overhead | Cost of Goods Sold |  |
|  | F |  |  |


| Actual Overhead $=\$ 7,000+8,400+75,600=$ | $\$ 91,000$ |
| :--- | ---: |
| Overhead applied $=$ | $\underline{\$ 97,125}$ |
| Overapplied overhead $=$ | $\underline{\$ 6,125}$ |

Learning Objective: 02-P1 Describe and record the flow of materials costs in job order costing.
Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing. Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing. Learning Objective: 02-P4 Determine adjustments for overapplied and underapplied factory overhead.

Topic: Labor Cost Flows and Documents
Topic: Materials Cost Flows and Documents
Topic: Overhead Cost Flows and Documents
Topic: Underapplied or Overapplied Overheaa
164. A company's predetermined overhead rate is applied at $130 \%$ of direct labor cost. How much overhead would be allocated to Job No. 105 if it required total direct labor costs of $\$ 60,000$ ?
$\$ 60,000 * 130 \%=\underline{\$ 7,000}$

> AACSB: Analytical Thinking AICPA: BB Industry AICPA: FN Measurement
> Blooms: Apply
> Difficulty: 2 Medium

Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing.
Topic: Overhead Cost Flows and Documents
165. A company's predetermined overhead rate is applied at $150 \%$ of direct materials cost. How much overhead would be allocated to Job No. 325 if the total direct materials costs was $\$ 40,000$ ?
$\$ 40,000 * 150 \%=\$ 60,000$
166. Selected information from the budget of the Singh Corp. at the beginning of the year follows:

| Estimated factory overhead | $\$ 132,000$ |  |
| :--- | ---: | :--- |
| Estimated direct labor hours | 55,000 | hours |
| Estimated machine hours | 41,250 | hours |
| Estimated direct labor cost | $\$ 825,000$ |  |
| Actual factory overhead incurred during the year | $\$ 144,000$ |  |

Calculate the predetermined overhead rate if the company uses the following as a basis:
(a) Direct labor hours.
(b) Direct labor cost.
(c) Machine hours.
(a) $\$ 132,000 / 55,000=\$ 2.40$ per direct labor hour
(b) $\$ 132,000 / \$ 825,000=16 \%$ of direct labor cost
(c) $\$ 132,000 / 41,250=\$ 3.20$ per machine hour
167. A manufacturing company uses an overhead rate based on direct labor cost. The company's Work in Process Inventory account has a $\$ 15,000$ debit balance after all posting is completed, and the cost sheet of the one job still in process shows direct material costs of \$6,600 and direct labor costs of $\$ 3,000$. What is the company's overhead application rate?
$(\$ 15,000-\$ 6,600-\$ 3,000) / \$ 3,000=\underline{180 \%}$

AACSB: Analytical Thinking
AICPA: BB Industry AICPA: FN Measurement

Blooms: Apply
Difficulty: 3 Hara
Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing. Topic: Overhead Cost Flows and Documents
168. Nutley Company uses a job order cost system and last period incurred $\$ 70,000$ of overhead and $\$ 100,000$ of direct labor. Nutley estimates that its overhead next period will be $\$ 65,000$. The company also expects to incur $\$ 100,000$ of direct labor. If Nutley bases its overhead applied on direct labor cost, what should be the overhead rate for the next period?

| $\frac{\$ 65,000}{\$ 100,000}$ | $=65 \%$ |
| :--- | :--- |
| AACSB: Analytical Thinking |  |
| A/CPA: BB Industry |  |
| A/CPA: FN Measurement |  |
| Blooms: Apply |  |
| Difficulty: 1 Easy |  |

Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing.
Topic: Overhead Cost Flows and Documents
169. A company's job order costing system applies overhead based on direct labor cost. The company's estimated production costs for were: direct labor, \$57,600; direct materials, \$76,800; and factory overhead, $\$ 9,600$. Calculate the company's overhead rate.

| $\frac{\$ 9,600}{\$ 57,600}$ | $=16.7 \%$ |
| :--- | :--- |
| AACSB: Analytical Thinking |  |
| A/CPA: BB Industry |  |
| A/CPA: FN Measurement |  |
| Blooms: Apply |  |
| Difficulty: 3 Hara |  |

Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing. Topic: Overhead Cost Flows and Documents
170. The job cost sheet for Job number 83-421 includes the following information:

DIRECT MATERIALS:

7/12 Requisition R88-566: 20 units @ $\$ 3.50$ per unit
7/13 Requisition R88-576: 18 units @ \$5.00 per unit
7/13 Requisition R88-578: 4 units @ $\$ 25.00$ per unit
7/14 Requisition R88-591: 40 units @ \$1.25 per unit

DIRECT LABOR:

7/12 Employee 19: 8 hours @ $\$ 9.00$ per hour
7/13 Employee 19: 6 hours @ $\$ 9.00$ per hour
7/13 Employee 37: 6 hours @ $\$ 7.00$ per hour
7/14 Employee 19: 5 hours @ $\$ 9.00$ per hour
7/14 Employee 92: 5 hours @ \$11.00 per hour

FACTORY OVERHEAD: Assigned at 150\% of direct labor cost.

What is the total cost of Job number 83-421?

| Total cost of job: |  |  |
| :--- | :--- | :--- |
| DIRECT MATERIALS: |  |  |
| $7 / 12$ Requisition R88-566: 20 <br> units @ \$3.50 per unit | $=\$ 70$ |  |
| $7 / 13$ Requisition R88-576: 18 <br> units @ \$5.00 per unit | $=$ | 90 |
| $7 / 13$ Requisition R88-578: 4 <br> units @ \$25.00 per unit | $=$ | 100 |
| $7 / 14$ Requisition R88-591: 40 <br> units @ \$1.25 per unit | $=$ | 50 |


| Total direct materials cost | $=\$ 310$ |
| :---: | :---: |
| DIRECT LABOR: |  |
| 7/12 Employee 19: 8 hours @ $\$ 9.00$ per hour | \$72 |
| 7/13 Employee 19: 6 hours @ $\$ 9.00$ per hour | 54 |
| 7/13 Employee 37: 6 hours @ $\$ 7.00$ per hour | $=42$ |
| 7/14 Employee 19: 5 hours @ $\$ 9.00$ per hour | $=45$ |
| 7/14 Employee 92: 5 hours @ $\$ 11.00$ per hour | $=55$ |
| Total direct labor cost | $=\$ 268$ |
| FACTORY OVERHEAD: |  |
| $150 \%$ of direct labor cost $(150 \% * \$ 268)$ | $=\$ 402$ |
| TOTAL COST ASSIGNED TO THE JOB | $=\$ 980$ |

AACSB: Analytical Thinking
A/CPA: BB Industry A/CPA: FN Measurement

Blooms: Apply
Difficulty: 3 Hara
Learning Objective: 02-C2 Explain job cost sheets and how they are used in job order costing. Learning Objective: 02-P1 Describe and record the flow of materials costs in job order costing.

Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing. Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing. Topic: Job Cost Sheet
Topic: Labor Cost Flows and Documents
Topic: Materials Cost Flows and Documents
Topic: Overhead Cost Flows and Documents
171. The following calendar year information about the Tchulahota Corporation is available on December 31:

| Advertising expense | $\$ 28,800$ |
| :--- | ---: |
| Depreciation of factory <br> equipment | 42,320 |
| Depreciation of office <br> equipment | 10,800 |
| Direct labor | 142,600 |
| Factory utilities | 35,650 |
| Interest expense | 6,650 |
| Inventories, January 1: | 3,450 |
| Raw materials | 17,250 |
| Work in Process | 35,600 |
| Finished goods | 2,300 |
| Inventories, December 31: | 20,700 |
| Raw materials | 31,050 |
| Work in Process | 132,450 |
| Finished goods | 41,400 |
| Raw materials purchases | 51,750 |
| Rent on factory building | 16,500 |
| Indirect labor |  |
| Sales commissions |  |

The company applies overhead on the basis of $125 \%$ of direct labor costs. Calculate the amount of over- or underapplied overhead.

## Factory overhead costs:

| Depreciation of factory <br> equipment | $\$ 42,320$ |
| :--- | ---: |
| Factory utilities | 35,650 |
| Rent on factory building | 41,400 |
| Indirect labor | $\$ 1,750$ |
| Total actual factory <br> overhead costs | $\$ 171,120$ |
| Factory overhead applied <br> $(142,600 * 125 \%)$ | $\$ 178,250$ |
| Overapplied overhead | $\$ 7,130$ |

172. The predetermined overhead rate for Foster, Inc., is based on estimated direct labor costs of $\$ 400,000$ and estimated factory overhead of $\$ 500,000$. Actual costs incurred were:

| Direct materials | $\$ 240,000$ |
| :--- | ---: |
| Direct labor | 410,000 |
| Indirect materials | 55,000 |
| Indirect labor | 125,000 |
| Sales commissions | 55,000 |
| Factory depreciation | 170,000 |
| Property taxes, factory | 15,000 |
| Factory utilities | 35,000 |
| Advertising | 62,500 |
| Factory equipment rental | 110,000 |

(a) Calculate the predetermined overhead rate and calculate the overhead applied during the year.
(b) Determine the amount of over- or underapplied overhead and prepare the journal entry to eliminate the over- or underapplied overhead assuming that it is not material in amount.
(a) Predetermined overhead rate $=\$ 500,000 / \$ 400,000=125 \%$ of direct labor cost

Overhead applied $=\$ 410,000 * 125 \%=\$ 512,500$
(b)

| Actual overhead: |  |
| :--- | ---: |
| Indirect materials | $\$ 55,000$ |
| Indirect labor | 125,000 |
| Factory depreciation | 170,000 |
| Property taxes, factory | 15,000 |
| Factory utilities | 35,000 |


| Factory equipment rental | 110,000 |
| :--- | ---: |
| Total actual overhead | $\$ 510,000$ |
| Overhead applied | 512,500 |
| Overapplied overhead | $\$ 2,500$ |


| Factory Overhead | 2,500 |  |
| :---: | ---: | ---: |
| Cost of Goods Sold |  | 2,500 |

AACSB: Analytical Thinking
AICPA: BB Industry AICPA. FN Measurement

Blooms: Apply
Difficulty: 3 Hara
Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing. Learning Objective: 02-P4 Determine adjustments for overapplied and underapplied factory overhead.

Topic: Overhead Cost Flows and Documents
Topic: Underapplied or Overapplied Overheaa
173. A company charged the following amounts of overhead to jobs during the current year: $\$ 12,000$ to jobs still in process, $\$ 42,000$ to jobs completed but not sold, and $\$ 66,000$ to jobs finished and sold. At year-end, the company's Factory Overhead account has a credit balance of $\$ 9,000$, which is not a material amount. What entry (if any) should the company make at year-end related to this overhead balance?

| Dec. 31 | Factory Overhead | 9,000 |  |
| :--- | :--- | ---: | ---: |
|  | Cost of Goods Sold |  | 9,000 |

AACSB: Analytical Thinking AICPA: BB Industry

AICPA: FN Measurement
Blooms: Apply
Difficulty: 3 Hara
174. Oddley Corp. uses a job order costing system. The following is selected information pertaining to costs applied to jobs during the year:

| Jobs still in process at the end of the year: |
| :--- |
| $\$ 167,000$, which includes $\$ 65,000$ direct labor costs. |

Jobs finished and sold during the year:
$\$ 395,000$, which includes $\$ 172,000$ direct labor costs.
Jobs finished but unsold during the year:
$\$ 103,000$, which includes $\$ 38,000$ direct labor costs.

Oddley Corp.'s predetermined overhead rate is $60 \%$ of direct labor cost. At the end of the year, the company's records show that $\$ 189,000$ of factory overhead has been incurred.
(a) Determine the amount of overapplied or underapplied overhead.
(b) Prepare the necessary journal entry to close the Factory Overhead account assuming that any remaining balance is not material.

| (a) | Actual overhead <br> cost | $\$ 189,000$ |  |
| :--- | :--- | :--- | :--- |
|  | Applied overhead <br> $(60 \% * \$ 275,000) *$ | $-165,000$ |  |$|$

$\$ 65,000+\$ 172,000+\$ 38,000=\$ 275,000$

Difficulty: 3 Hara
175. Taylor Corp. uses a job order costing system and worked only on Job 101 during the current period. Job 101 was sold for $\$ 460,000$. The following information pertains to costs incurred for Job 101.

| Direct Materials | $\$ 90,000$ |
| :--- | ---: |
| Indirect Materials | $\$ 30,000$ |
| Direct Labor | $\$ 130,000$ |
| Indirect Labor | $\$ 75,000$ |
| Depreciation of <br> Machinery | $\$ 10,000$ |
| Factory Supplies | $\$ 8,000$ |
| Overhead Application <br> Rate | $90 \%$ of direct <br> labor |

Determine the amount of gross profit earned on Job 101.

| Job Costs: |  |  |
| :--- | ---: | :--- |
| Direct Materials | $\$ 90,000$ |  |
| Direct Labor | 130,000 |  |
| Overhead | 117,000 |  |
| Underapplied Overhead | 6,000 | $*$ (closed to cost of goods sold) |
| Total Cost of Goods Sold | $\$ 343,000$ |  |
| Gross Profit: |  |  |
| Sales Price | $\$ 460,000$ |  |
| Less Cost of Goods Sold | 343,000 |  |
| Gross Profit | $\$ 117,000$ |  |
| *Actual Overhead Incurred: |  |  |
| Indirect Materials | $\$ 30,000$ |  |


| Indirect Labor | 75,000 |  |
| :--- | ---: | ---: |
| Depreciation of Machinery | 10,000 |  |
| Factory Supplies | 8,000 |  |
| Total Actual Overhead | $\$ 123,000$ |  |
| Applied Overhead | 117,000 |  |
| Underapplied Overhead | $\$ 6,000$ |  |

AACSB: Analytical Thinking
AICPA: BB Industry
AICPA: FN Measurement
Blooms: Apply
Difficulty: 3 Hara
Learning Objective: O2-P1 Describe and record the flow of materials costs in job order costing.
Learning Objective: O2-P2 Describe and record the flow of labor costs in job order costing.
Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing.
Learning Objective: 02-P4 Determine adjustments for overapplied and underapplied factory overhead.
Topic: Labor Cost Flows and Documents
Topic: Overhead Cost Flows and Documents Cost Flows and Documents
Topic: Underapplied or Overapplied Overhean
176. At the end of June, the job cost sheets for Kennedy Manufacturing show the following total costs accumulated on three custom jobs.

|  | Job <br> $\mathbf{2 0 3}$ | Job <br> $\mathbf{2 0 4}$ | Job <br> $\mathbf{2 0 5}$ |
| :--- | ---: | ---: | ---: |
| Direct <br> materials | $\$ 32,000$ | $\$ 47,000$ | $\$ 43,000$ |
| Direct labor | 18,000 | 22,000 | 25,000 |
| Overhead | 26,100 | 31,900 | 36,250 |

Job 203 was started in production in May and the following costs were assigned to it in May: direct materials, $\$ 12,000$; direct labor, $\$ 6,000$; and overhead $\$ 8,700$. Jobs 204 and 205 are started in June. Overhead cost is applied with a predetermined rate based on direct labor cost. Jobs 203 and 204 are finished in June, and Job 205 will be finished in July. No raw materials are used indirectly in June. Using this information, answer the following questions assuming the company's predetermined overhead rate did not change.
a. What is the cost of the raw materials requisitioned in June for each of the three jobs?
b. How much direct labor cost is incurred during June for each of the three jobs?
c. What predetermined overhead rate is used during June?
d. How much total cost is transferred to finished goods during June?

| a. | Materials for Job <br> 203 | $\$ 32,000$ |  |
| :--- | :--- | :--- | ---: |
|  | Less prior costs | $\underline{12,000}$ | $\$ 20,000$ |
|  | Job 204 |  | 47,000 |
| Job 205 |  | 43,000 |  |
| Total materials <br> requisitioned |  | $\$ 110,000$ |  |


| b. | Labor for Job 203 | $\$ 18,000$ |  |
| :--- | :--- | ---: | ---: |
|  | Less prior costs | 6,000 | $\$ 12,000$ |
|  | Job 204 |  | 22,000 |
|  | Job 205 |  | $\underline{25,000}$ |
|  | Total direct labor |  | $\underline{\$ 59,000}$ |


| c. |  | Job 204 | Job 205 |
| :--- | :--- | ---: | ---: |
|  | Overhead | $\$ 31,900$ | $\$ 36,250$ |
|  | Direct labor | 22,000 | 25,000 |
|  | Ratio | $145 \%$ | $145 \%$ |


| d. |  | Job 203 | Job 204 | Total |
| :--- | :--- | ---: | ---: | ---: |
| Direct <br> materials | $\$ 32,000$ | $\$ 47,000$ | $\$ 79,000$ |  |
| Direct <br> labor | 18,000 | 22,000 | 40,000 |  |
|  | Overhead | 26,100 | 31,900 | 58,000 |
|  |  | $\$ 76,100$ | $\underline{\$ 100,900}$ | $\underline{\$ 177,000}$ |

Learning Objective: 02-C2 Explain job cost sheets and how they are used in job order costing. Learning Objective: 02-P1 Describe and record the flow of materials costs in job order costing.

Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing. Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing.

Topic: Job Cost Sheet
Topic: Labor Cost Flows and Documents
Topic: Materials Cost Flows and Documents Topic: Overhead Cost Flows and Documents
177. Booth Manufacturing uses a job order costing system that charges overhead to jobs on the basis of direct material cost. At year-end, the Work in Process Inventory account shows the following.

| Date | Explanation | Debit | Credit | Balance |
| ---: | :--- | ---: | ---: | ---: |
| Dec. 31 | Direct materials cost | 980,000 |  | 980,000 |
| 31 | Direct labor cost | 320,000 |  | $1,300,000$ |
| 31 | Overhead costs | 637,000 |  | $1,937,000$ |
| 31 | To finished goods |  | $1,818,000$ | 119,000 |

a. Determine the overhead rate used (based on direct material cost).
b. Only one job remained in the Work in Process inventory at December 31. Its direct materials cost is $\$ 60,000$. How much direct labor cost and overhead cost are assigned to it?
a. Rate $=\$ 637,000 / \$ 980,000=65 \%$

| b. | Total cost of job <br> in process | $\$ 119,000$ |  |
| :--- | :--- | :--- | :--- |
|  | Less materials <br> costs of job in <br> process | $\underline{60,000}$ | $\$ 59,000$ |
|  | Less overhead <br> applied (\$60,000 <br> *.65) |  | $\underline{39,000}$ |
|  | Direct labor cost |  | $\$ 20,000$ |

178. Franklin Manufacturing uses a job order costing system that charges overhead to jobs on the basis of direct labor cost. Franklin used the following cost predictions: overhead costs $\$ 1,285,750$, and direct labor costs of $\$ 695,000$. At year-end, the company's records show that actual overhead costs for the year are $\$ 1,278,800$, and actual direct labor costs are $\$ 692,000$.
a. Determine the predetermined overhead rate for the year.
b. Compute the amount of overapplied or underapplied overhead.
c. Prepare the adjusting entry to allocate the over- or underapplied overhead assuming the amount if immaterial.
a. $\$ 1,285,750 / \$ 695,000=185 \%$
b. $\$ 1,278,800-(\$ 692,000 * 1.85)=\$ 1,400$ overapplied

| c. | Factory Overhead | 1,400 |  |
| :--- | :--- | :--- | :--- |
|  | Cost of Goods |  | 1,400 |
|  | Sold |  |  |

Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing. Learning Objective: 02-P4 Determine adjustments for overapplied and underapplied factory overhead.

Topic: Overhead Cost Flows and Documents
Topic: Underapplied or Overapplied Overheaa
179. Drop Anchor takes special orders to manufacture sail boats for high end customers. Complete the job cost sheets for Drop Anchor for September based on the following information. Prepare journal entries to record the transactions as well as post to the job cost sheets.
a. Purchased raw materials on credit, $\$ 145,000$.
b. Materials requisitions: Job 240, \$48,000; Job 241, \$36,000; Job 242, \$42,000; indirect materials were $\$ 12,000$.
c. Time tickets used to charge labor to jobs: Job 240, \$40,000; Job 241, \$30,000; Job 242, $\$ 35,000$, indirect labor is $\$ 25,000$.
d. The company incurred the following additional overhead costs: depreciation of factory building, $\$ 70,000$; depreciation of factory equipment, $\$ 60,000$; expired factory insurance, $\$ 10,000$; utilities and maintenance cost of $\$ 20,000$ were paid in cash.
e. Applied overhead to all three jobs. The predetermined overhead rate is $190 \%$ of direct labor cost.
f. Transferred jobs 240 and 242 to Finished Goods Inventory.
g. Sold job 240 for $\$ 300,000$ for cash.
h. Closed the under- or over-applied overhead account balance.

| Job Cost Sheets | $\mathbf{2 4 0}$ | $\mathbf{2 4 1}$ | $\mathbf{2 4 2}$ | Total |
| :--- | :--- | :--- | :--- | :--- |
| For the current <br> month |  |  |  |  |
| Direct materials |  |  |  |  |
| Direct labor |  |  |  |  |
| Applied overhead |  |  |  |  |
| Total costs |  |  |  |  |


| a. | Raw Materials Inventory | 145,000 |  |
| :---: | :---: | :---: | :---: |
|  | Accounts Payable |  | 145,000 |


| b. | Work in Process Inventory | 126,000 |  |
| :---: | :---: | :---: | :---: |
|  | Raw Materials Inventory |  | 126,000 |
|  | Factory Overhead | 12,000 |  |
|  | Raw Materials Inventory |  | 12,000 |
| c. | Work in Process Inventory | 105,000 |  |
|  | Factory Wages Payable |  | 105,000 |
|  | Factory Overhead | 25,000 |  |
|  | Factory Wages Payable |  | 25,000 |
| d. | Factory Overhead | 160,000 |  |
|  | Accumulated Depreciation-Factory Building |  | 70,000 |
|  | Accumulated Depreciation-Factory Equip. |  | 60,000 |
|  | Prepaid insurance |  | 10,000 |
|  | Cash |  | 20,000 |
| e. | Work in Process Inventory | 199,500 |  |
|  | Factory Overhead (\$105,000 * 190\%) |  | 199,500 |
| f. | Finished Goods Inventory (\$164,000 + \$143,500) | 307,500 |  |
|  | Work in Process Inventory |  | 307,500 |
| g. | Cash | 300,000 |  |
|  | Sales |  | 300,000 |
|  | Cost of Goods Sold | 164,000 |  |
|  | Finished Goods Inventory |  | 164,000 |
| h. | Factory Overhead | 2,500 |  |
|  | Cost of Goods Sold |  | 2,500 |


| Overhead $=\$ 12,000+25,000+160,000=$ | $\$ 197,000$ |
| :--- | ---: |
| Overhead applied $=$ | $\underline{199,500}$ |
| Overapplied overhead $=$ | $\underline{\$ 2,500}$ |


| Job Cost Sheets | $\mathbf{2 4 0}$ | $\mathbf{2 4 1}$ | $\mathbf{2 4 2}$ | Total |
| :--- | ---: | ---: | ---: | ---: |
| For the current month |  |  |  |  |


| Direct materials | 48,000 | 36,000 | 42,000 | 126,000 |
| :--- | ---: | ---: | ---: | ---: |
| Direct labor | 40,000 | 30,000 | 35,000 | 105,000 |
| Applied overhead | $\underline{76,000}$ | $\underline{57,000}$ | $\underline{66,500}$ | $\underline{199,500}$ |
| Total costs | $\underline{164,000}$ | $\underline{123,000}$ | $\underline{143,500}$ | $\underline{430,500}$ |

AACSB: Analytical Thinking
AICPA: BB Industry
A/CPA. FN Measurement
Blooms: Apply
Difficulty: 3 Hara
Learning Objective: 02-P1 Describe and record the flow of materials costs in job order costing.
Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing.
Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing. Learning Objective: 02-P4 Determine adjustments for overapplied and underapplied factory overhead.

Topic: Labor Cost Flows and Documents
Topic: Materials Cost Flows and Documents
Topic: Overhead Cost Flows and Documents
Topic: Underapplied or Overapplied Overheaa

The predetermined overhead rate for Shilling Manufacturing is based on estimated direct labor costs of $\$ 350,000$ and estimated factory overhead of $\$ 770,000$. Actual costs incurred were:

| Direct materials | $\$ 475,000$ |
| :--- | ---: |
| Direct labor | 347,000 |
| Indirect materials | 78,000 |
| Indirect labor | 143,500 |
| Sales commissions | 150,000 |
| Factory depreciation | 260,000 |
| Property taxes, factory | 35,000 |
| Factory utilities | 65,000 |
| Advertising | 62,500 |
| Factory supervision | 185,000 |

a. Calculate the predetermined overhead rate and calculate the overhead applied during the year.
b. Determine the amount of over- or underapplied overhead and prepare the journal entry to eliminate the over- or underapplied overhead assuming that it is not material in amount.
a. Predetermined overhead rate $=\$ 770,000 / \$ 350,000=220 \%$ of direct labor cost

Overhead applied $=\$ 347,000 * 220 \%=\$ 763,400$
b.

| Actual overhead: |  |
| :--- | ---: |
| Indirect materials | $\$ 78,000$ |
| Indirect labor | 143,500 |
| Factory depreciation | 260,000 |
| Property taxes, factory | 35,000 |


| Factory utilities | 65,000 |
| :--- | ---: |
| Factory supervision | 185,000 |
| Total actual overhead | $\$ 766,500$ |
| Overhead applied | 763,400 |
| Underapplied overhead | $\$ 3,100$ |


| Cost of Goods Sold | 3,100 |  |
| :---: | :---: | :---: |
| Factory Overhead |  | 3,100 |

AACSB: Analytical Thinking
AICPA: BB Industry
A/CPA: FN Measurement
Blooms: Apply
Difficulty: 3 Hara

Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing. Learning Objective: 02-P4 Determine adjustments for overapplied and underapplied factory overhead.

Topic: Overhead Cost Flows and Documents
Topic: Underapplied or Overapplied Overheaa

Fill in the Blank Questions
181. A $\qquad$ accounting system records production activities using a perpetual inventory system.
cost

Answers must appear in this order
182. $\qquad$ or customized production, produces products in response to customer orders.

## Job order production

AACSB: Communication AICPA: BB Industry
AICPA: FN Measurement
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-C1 Describe important features of job order production.
Topic: Job Order Costing
183. A $\qquad$ is a separate record maintained for each job.
job cost sheet

AACSB: Communication
AICPA: BB Industry
AICPA: FN Measurement
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-C2 Explain job cost sheets and how they are used in job order costing.
Topic: Job Cost Sheet
184. The collection of job cost sheets for all jobs in process makes up the subsidiary ledger controlled by the $\qquad$ inventory.

## Work in Process

185. In a job order costing system, raw materials requisitioned as direct materials are debited to
$\qquad$ ; indirect materials are debited to $\qquad$ -.

## Work in Process inventory; factory overhead

Answers must appear in this order

> AACSB: Communication
> AICPA: BB Industry
> AICPA: FN Measurement
> Blooms: Understana
> Difficulty: 2 Medium

Learning Objective: 02-P1 Describe and record the flow of materials costs in job order costing.
Topic: Materials Cost Flows and Documents
186. When factory payroll is assigned to specific jobs, $\qquad$ is debited.

## Work in Process inventory

AACSB: Communication AICPA: BB Industry

A/CPA. FN Measurement
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing.
Topic: Labor Cost Flows and Documents
187. When factory payroll for indirect labor is assigned, $\qquad$ is debited.

## factory overhead

Learning Objective: 02-P2 Describe and record the flow of labor costs in job order costing.
Topic: Labor Cost Flows and Documents
188. A $\qquad$ is calculated by relating total estimated factory overhead to an allocation factor such as total estimated direct labor cost, and is used to allocate factory overhead to specific jobs.
predetermined overhead rate

AACSB: Communication
A/CPA: BB Industry
A/CPA: FN Measurement
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing.
Topic: Overhead Cost Flows and Documents
189. When the actual overhead incurred during an accounting period is more than the overhead applied to jobs, the overhead is said to be $\qquad$ _.

## underapplied

AACSB: Communication
AICPA: BB Industry
A/CPA: FN Measurement
Blooms: Remember
Difficulty: 1 Easy
Learning Objective: 02-P3 Describe and record the flow of overhead costs in job order costing.
Topic: Overhead Cost Flows and Documents
190. Immaterial amounts of overapplied overhead should be $\qquad$ to the
$\qquad$ account when closed.
credited, Cost of Goods Sold

