

## Chapter 02 Job Order Costing and Analysis

### True/False Questions

1. A manufacturing company that uses a cost accounting system normally has only two inventory accounts: Finished Goods Inventory and Goods in Process Inventory.

True False

2. Cost accounting systems accumulate costs and then assign them to products or services.

True False

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

True False

4. A manufacturing firm that produces a large numbers of standardized units would normally use a job order cost accounting system.

True False

5. Job order manufacturing systems would be appropriate for companies that produce custom homes, specialized equipment, and special computer systems.

True False

6. Job order manufacturing systems would be appropriate for companies that produce compact disks or disposable cameras.

True False

7. A job order cost accounting system would be appropriate for a manufacturer of automobile tires.

True False

8. Job order manufacturing 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

9. A company's file of job cost sheets for finished but unsold jobs equals the balance in the Finished Goods Inventory account.

True False

10. The raw 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 exerted by employees on the job.

True False

11. In a job order cost accounting system, the total balances of all of the job cost sheets for unfinished jobs equal the balance in the Goods in Process Inventory account.

True False

12. A job cost sheet is useful for developing financial accounting numbers but does not contain information that is useful for managing the manufacturing process.

True False

13. 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

14. 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

15. The file of job cost sheets for completed but undelivered jobs equals the balance in the Goods in Process Inventory account.

True False

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

True False

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

True False

18. The cost of all direct materials used on a job is debited to the Finished Goods Inventory account.

True False

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

True False

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

True False

21. 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

22. Materials requisitions and time tickets are cost accounting source documents.

True False

23. A clock card is a source document that an employee uses to report how much time was spent working on a job or on overhead 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.

True False

24. 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

25. 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

26. A clock card is a source document used by an employee to record the total number of hours worked during the pay period.

True False

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

True False

28. Factory overhead is often collected and summarized in a factory overhead ledger.

True False

29. The predetermined overhead allocation rate is used to apply overhead cost to products.

True False

30. Predetermined overhead rates are necessary because cost accountants use periodic inventory systems.

True False

31. The predetermined overhead allocation rate based on direct labor cost is the ratio of estimated overhead cost for the period to estimated direct labor cost for the period.

True False

32. The balance of the Factory Overhead account appears on the income statement.

True False

33. In a job order cost accounting system, indirect labor costs are debited to the Factory Overhead account.

True False

34. Since a predetermined overhead allocation 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

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

True False

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

True False

37. In a job order cost accounting system, any immaterial underapplied overhead at the end of the period can be charged entirely to Cost of Goods Sold.

True False

38. 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

39. 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

40. Any material amount of under- or overapplied factory overhead must always be closed to Cost of Goods Sold at the end of an accounting period.

True False

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

True False

42. Overapplied overhead is the amount by which overhead applied to jobs using the predetermined overhead allocation rate exceeds the overhead incurred during a period.

True False

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

True False

### Multiple Choice Questions

44. 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

45. A system of accounting for manufacturing 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.

46. Job order costing systems normally use:

- A. Periodic inventory systems.
- B. Perpetual inventory systems.
- C. Real inventory systems.
- D. General inventory systems.
- E. All of these.

47. In comparison to a general accounting system for a manufacturing company, a cost accounting system places an emphasis on:

- A. Periodic inventory counts.
- B. Total costs.
- C. Unit costs and cost control.
- D. Products and average costs.
- E. Large volume operations involving standardized products.

48. A system of accounting for manufacturing operations that uses a periodic inventory system is called a:

- A. Manufacturing accounting system.
- B. Production accounting system.
- C. General accounting system.
- D. Cost accounting system.
- E. Finished goods accounting system.

49. The production activities for a customized product represent a(n):

- A. Operation.
- B. Job.
- C. Unit.
- D. Pool.
- E. Process.

50. A job order cost accounting 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.



51. A type of manufacturing that produces customized products or services for each customer is called:

- A. Customer orientation manufacturing.
- B. Job order manufacturing.
- C. Just-in-time manufacturing.
- D. Job lot manufacturing.
- E. Process manufacturing.

52. Job order manufacturing is also known as:

- A. Mass production manufacturing.
- B. Process manufacturing.
- C. Unit manufacturing.
- D. Customized manufacturing.
- E. Standard costing.

53. Dell Builders manufactures each house to customer specifications. It most likely would use:

- A. Capital process costing.
- B. A periodic inventory system.
- C. Unique costing
- D. Job order costing
- E. Activity-based costing

54. A job order manufacturing 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.

55. Large aircraft manufacturers such as McDonnell Douglas normally use:

- A. Job order costing.
- B. Process costing.
- C. Mixed costing.
- D. Full costing.
- E. Simple costing.

56. A document in a job order cost accounting 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.

57. 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.

58. The job order cost sheets used by Garza Company revealed the following:

<u>Job. No.</u>	<u>Bal. May 1</u>	<u>May Production Costs</u>
124	\$1,700	\$---
125	1,200	300
126	---	900

Job No. 125 was completed during May and Jobs No. 124 and 125 were shipped to customers in May. What was the company's cost of goods sold for May and the goods 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.

59. A job cost sheet includes:

- A. Direct materials, direct labor, operating costs.
- B. Direct materials, overhead, administrative costs.
- C. Direct labor, overhead, selling costs.
- D. Direct material, direct labor, overhead.
- E. Direct materials, direct labor, selling costs.

60. 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.

61. A source document that production managers use to request materials for manufacturing 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.

62. The Goods in Process Inventory account for the AB Corp. follows:

Goods in Process Inventory			
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

63. A company's overhead rate is 60% of direct labor cost. Using the following incomplete accounts, determine the cost of direct materials used.

Goods in Process Inventory				Finished Goods Inventory		
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						
	93,240		90,720			

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

64. During last period, a company's direct labor cost was double the cost of its direct material used. In addition, factory overhead was \$5,000 underapplied. Use the following incomplete accounts to determine the cost of direct labor.

Goods in Process Inventory		Finished Goods Inventory	
Beg. Bal.	60,000	Beg. Bal.	76,000
D.M.	?		? 93,000
D.L.	?		
O.H.	?	F. G.	?
End. Bal.	87,000	End. Bal.	71,000
Factory Overhead			
75,000			

- A. \$15,000.
- B. \$88,000.
- C. \$45,000.
- D. \$70,000.
- E. \$30,000.

65. During last period, a company's overhead rate was 150% of direct labor cost. This caused factory overhead to be \$10,000 overapplied. Use the following incomplete accounts to determine the cost of goods sold.

Goods in Process Inventory		Finished Goods Inventory	
Beg. Bal.	10,000	Beg. Bal.	30,000
D.M.	80,000		?
D.L.	?		?
O.H.	?	F. G.	?
End. Bal.	20,000	End. Bal.	70,000

  

Factory Overhead	
	50,000

- A. \$130,000.
- B. \$170,000.
- C. \$ 40,000.
- D. \$ 60,000.
- E. \$ 90,000.

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

- A. Job cost sheet.
- B. Hours-of-production sheet.
- C. Time ticket.
- D. Job order ticket.
- E. Clock card.

67. 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.

68. When factory payroll costs are recorded in a job cost accounting system:
- A. Factory Payroll is debited and Goods in Process is credited.
  - B. Goods 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. Goods in Process is debited and factory payroll is credited.

69. Penn Company uses a job order cost accounting system. In the last month, the system accumulated labor time tickets totaling \$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 Penn make to assign the Factory Payroll?

(A)	Payroll Expense	28,900	
	Cash		28,900
(B)	Payroll Expense	24,600	
	Factory Overhead	4,300	
	Factory Payroll		28,900
(C)	Goods in Process Inventory	24,600	
	Factory Overhead	4,300	
	Factory Payroll		28,900
(D)	Goods in Process Inventory	24,600	
	Factory Overhead	4,300	
	Accrued Wages Payable		28,900
(E)	Goods in Process Inventory	28,900	
	Factory Payroll		28,900

- A. A Above
- B. B Above
- C. C Above
- D. D Above
- E. E Above

70. Labor costs in manufacturing can be:

- A. Direct or indirect.
- B. Indirect or sunk.
- C. Direct or payroll.
- D. Indirect or payroll.
- E. Direct or sunk.

71. Canberra Company uses a job order cost accounting system. During the current month, the factory payroll of \$180,000 was paid in cash. The amount of labor classified as indirect labor was three times greater than the amount classified as indirect labor. What amount should be debited to Factory Overhead for indirect labor for this month?

- A. \$135,000.
- B. \$180,000.
- C. \$ 45,000.
- D. \$ 60,000.
- E. \$ 20,000.

72. 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.

73. Canoe Company's manufacturing accounting system uses direct labor costs to apply overhead to goods in process and finished goods inventories. Canoe Company's manufacturing 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%.



74. 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. Goods in Process Inventory.

75. The rate established prior to the beginning of a period that relates estimated overhead to an allocation factor such as estimated direct labor, and that is used to assign overhead cost to jobs, is the:

- A. Predetermined overhead allocation rate.
- B. Overhead variance rate.
- C. Estimated labor cost rate.
- D. Chargeable overhead rate.
- E. Miscellaneous overhead rate.

76. BVD Company uses a job order cost accounting system and last period incurred \$80,000 of overhead and \$100,000 of direct labor. BVD estimates that its overhead next period will be \$75,000. It also expects to incur \$100,000 of direct labor. If BVD bases applied overhead on direct labor cost, their overhead application rate for the next period should be:

- A. 75%.
- B. 80%.
- C. 107%.
- D. 125%.
- E. 133%.

77. O.K. Company uses a job order cost accounting system and allocates its overhead on the basis of direct labor costs. O.K. 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 O.K. Company's overhead application rate?

- A. 6.25%.
- B. 62.5%.
- C. 160%.
- D. 1600%.
- E. 67%.

78. Austin Company uses a job order cost accounting 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 allocation 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.

79. The R&R Company's manufacturing costs for August are: direct labor, \$13,000; indirect labor, \$6,500; direct materials, \$15,000; taxes on raw materials and work in process, \$800; heat, lights and power, \$1,000; and insurance on plant and equipment, \$200. R&R Company's factory overhead incurred for August is:

- A. \$ 2,000.
- B. \$ 6,500.
- C. \$ 8,500.
- D. \$21,500.
- E. \$36,500.

80. Deltan Corp. allocates overhead to production on the basis of direct labor costs. If Deltan'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. 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.

81. A company allocates overhead to production on the basis of direct labor costs. If the company's total estimated overhead is \$870,000 and estimated direct labor is \$1,160,000, determine the amount of overhead to be allocated to finished goods inventory. There is \$791,000 of total direct labor cost in the jobs in the finished goods inventory.

- A. \$1,054,667.
- B. \$ 593,250.
- C. \$1,275,853.
- D. \$1,079,482.
- E. \$ 79,000.

82. The Goods 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%.

83. The Goods in Process Inventory account of a manufacturing company that uses an overhead rate based on direct labor cost has a \$7,750 debit balance after all posting is completed. The cost sheet of the one job still in process shows direct material cost of \$6,000 and direct labor cost of \$1,000. Therefore, the company's overhead application rate is:

- A. 10.7%.
- B. 75.0%.
- C. 133.0%.
- D. 90.3%.
- E. 111.0%.

84. Using the following accounts and an overhead rate of 90% of direct labor cost, determine the amount of applied overhead.

Goods in Process Inventory		Finished Goods Inventory	
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.

85. Using the following accounts and an overhead rate of 80% of direct labor cost, determine the amount of applied overhead.

Goods in Process Inventory		Finished Goods Inventory	
Beg. Bal.	53,000	Beg. Bal.	9,000
D.M.	48,000		200,000
D.L.	?		129,000
O.H.	?	F. G.	?
End. Bal.	36,000	End. Bal.	80,000

- A. \$135,000.
- B. \$ 75,000.
- C. \$ 60,000.
- D. \$101,000.
- E. \$ 17,000.

86. If one unit of Product X 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.

87. If one unit of Product X used \$.75 of direct materials and \$6.00 of direct labor, sold for \$12.00, and was assigned overhead at the rate of 20% of direct labor costs, how much gross profit was realized from this sale?

- A. \$12.00.
- B. \$6.75.
- C. \$.75.
- D. \$1.20.
- E. \$4.05.

88. 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.

89. The ending inventory of finished goods has a total cost of \$10,000 and consists of 500 units. If the overhead applied to these goods is \$2,000, and the overhead rate is 50% of direct labor, how much direct materials cost was incurred in producing these units?

- A. \$4,000.
- B. \$6,000.
- C. \$3,000.
- D. \$7,000.
- E. \$10,000.

90. A manufacturing company uses a job order cost accounting system. Overhead is applied using direct labor hours as an allocation base. Total costs for a particular job were \$5,720. Of this amount \$2,600 was direct labor and \$1,040 was direct material. The company pays \$26 per hour of direct labor and \$2 per pound of direct materials. What is this company's overhead rate?

- A. \$26.00 per direct labor hour.
- B. \$20.80 per direct labor hour.
- C. \$ 4.00 per direct labor hour.
- D. \$80.00 per direct labor hour.
- E. \$2,080 per direct labor hour.

91. A manufacturing company uses a job order cost accounting system. Overhead is applied using pounds of direct materials used as an allocation base. Total costs for a particular job were \$5,720. Of this amount \$2,600 was direct labor and \$1,040 was direct material. The company pays \$26 per hour of direct labor and \$2 per pound of direct materials. What is this company's overhead rate?

- A. \$2 per pound of direct material used.
- B. \$1,040 per pound of direct material used.
- C. \$520 per pound of direct material used.
- D. \$4 per pound of direct material used.
- E. \$2,080 per pound of direct material used.

92. At the current year-end, Hardly Company found that its overhead was underapplied by \$2,500, and this amount was not deemed to be a material amount. Based on this information, Hardly 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.

93. If overhead applied is less than actual overhead, it is:

- A. Fully applied.
- B. Underapplied.
- C. Overapplied.
- D. Expected.
- E. Normal.

94. 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.

95. 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.

96. If a company applies overhead to production with a predetermined 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 was less than the overhead amount charged to production.
- D. The overhead was underapplied for the period.
- E. Actual overhead was greater than the overhead amount charged to production.

97. M.A.E. 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, M.A.E. Company's Factory Overhead account has a credit balance of \$5,000, which is not a material amount. What entry should M.A.E. make at year-end?

- (A) No entry is needed.
- (B) 

Factory Overhead	5,000	
Cost of Goods Sold		5,000
- (C) 

Cost of Goods Sold	5,000	
Factory Overhead		5,000
- (D) 

Factory Overhead	5,000	
Goods in Process Inventory		5,000
- (E) 

Factory Overhead	5,000	
Finished Goods		5,000

- A. A Above  
 B. B Above  
 C. C Above  
 D. D Above  
 E. E Above

98. 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 Goods in Process Inventory for \$600.  
 E. A credit to Cost of Goods Sold for \$600.



99. If it is a material amount, overapplied or underapplied overhead should be disposed of by allocating it to:

- A. Cost of goods sold and finished goods.
- B. Finished goods and goods in process.
- C. Goods in process, finished goods, and cost of goods sold.
- D. Goods in process, if immaterial.
- E. Raw materials, goods in process, and finished goods.

100. The Dina 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)	Cost of Goods Sold	5,600	
	Factory Overhead		5,600
(B)	Factory Overhead	5,600	
	Cost of Goods Sold		5,600
(C)	Factory Overhead	5,600	
	Goods in Process		5,600
(D)	Goods in Process	5,600	
	Factory Overhead		5,600

(E) No entry is needed.

- A. A Above
- B. B Above
- C. C Above
- D. D Above
- E. E Above

### Matching Questions

101. Match the following terms to the appropriate definition.

- |   |  |
|---|--|
| 1. Underapplied overhead                  | An accounting system for manufacturing activities based on the periodic inventory system. _____  |
| 2. Job order manufacturing                | A source document that is used to report how much time an employee spent working on a job or on overhead activities and then to determine the amount of direct labor to charge to the job or the amount of indirect labor to charge to overhead. _____ |
| 3. Clock card                             | A source document that is used to record the number of hours an employee works and to determine the total labor cost for each pay period. _____  |
| 4. Materials ledger card                  | A source document that production managers use to request materials for manufacturing and that is used to assign materials costs to specific jobs or to overhead. _____  |
| 5. Job cost sheet                         | The amount by which overhead incurred in a period exceeds the overhead applied to jobs with the predetermined overhead allocation rate. _____  |
| 6. General accounting system              | The production of products in response to special orders; also called customized production. _____   |
| 7. Materials requisition                  | The amount by which the overhead applied to jobs in a period with the predetermined overhead allocation rate exceeds the overhead incurred in a period. _____  |
| 8. Predetermined overhead allocation rate | A separate record maintained for each job in a job order costing system; it shows direct materials, direct labor, and overhead for each job. _____   |
| 9. Job order cost accounting system       | A cost accounting system designed to determine the cost of producing each job or job lot. _____  |
| 10. Overapplied overhead                  | 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. _____   |
| 11. Time ticket                           | A perpetual record that is updated each time units of raw material are both purchased and issued for use in production. _____  |

**Short Answer Questions**

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

103. How have some computer manufacturers implemented the concept of job order cost accounting?

104. Describe the purpose of a job cost sheet, and explain what information is found on the job cost sheet.

105. Explain how a service firm, such as an advertising agency, might use job order costing.

106. Describe how materials flow through a job order cost accounting system, and identify the key documents in the system.

107. Describe the flow of labor costs in a job order costing system, and identify the documents used in the system.

108. Explain what a predetermined overhead allocation rate is, how it is calculated, and why it is used.

109. Briefly describe how manufacturing firms dispose of overapplied or underapplied factory overhead.

### Essay Questions

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

<u>Number</u>	<u>Total Cost Incurred</u>	<u>Status of Job</u>
444	\$15,050	Finished and delivered
445	\$22,400	Finished and delivered
446	\$ 7,500	Finished and unsold
447	\$ 4,300	Finished and delivered
448	\$33,000	Finished and unsold
449	\$62,000	Finished and unsold
450	\$14,600	Unfinished
451	\$22,200	Finished and delivered
452	\$ 3,600	Unfinished
453	\$ 1,000	Unfinished

- What is the cost of goods sold for the month of March?
- What is the cost of the goods in process inventory on March 31?
- What is the cost of the finished goods inventory on March 31?

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

<u>Number</u>	<u>Total Cost Incurred</u>	<u>Status of Job</u>
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 unsold
962	\$ 8,500	Unfinished
963	\$11,200	Finished and unsold

- What is the cost of the goods in process inventory on June 30?
- What is the cost of the finished goods inventory on June 30?
- What is the cost of goods sold for the month of June?

112. Plumley Ad Agency contracted with a company to prepare an ad campaign. Plumley uses a job order costing system. Plumley estimates that the job will take 145 designer hours at \$90 per hour and 85 staff hours at \$45 per hour. Plumley 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.

113. Erlander Company uses a job order cost accounting system. On November 1, \$15,000 of direct materials and \$3,500 of indirect materials were requisitioned for production. Prepare the general journal entry to record this requisition.

114. RC Corp. uses a job order cost accounting system. During the month of April, 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) Paid factory payroll for the month totaling \$37,700 which includes \$8,200 indirect labor.
- (d) Assigned the factory payroll to jobs and overhead.

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

115. Key Manufacturing 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 Key's goods 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.

116. PRO, 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 and paid labor costs of \$250,000 cash (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.

117. Prepare journal entries to record the following transactions and events for April using a job order cost accounting 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 (paid in cash), 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.



118. A company's ending inventory of finished goods has a cost of \$35,000 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?

119. The production of one unit of Product BBB used \$17.50 of direct materials and \$21.00 of direct labor. The unit sold for \$56.00 and was assigned overhead at a rate of 30% of labor costs. What is the gross profit per unit on its sale?

120. A company uses a job order cost accounting system and applies overhead on the basis of direct labor cost. At the end of a recent period, the company's Goods in Process Inventory account appeared as follows:

Goods in Process						
Date		Explanation	PR	Debit	Credit	Balance
Mar.	17	Job No. 5 completed	G-8		90,900	(17,100)
Apr.	13	Job No. 6 completed	G-10		131,400	(148,500)
July	20	Job No. 7 completed	G-12		73,800	(222,300)
Oct.	11	Job No. 8 completed	G-15		168,300	(390,600)
Dec.	31	Direct Materials	G-20	235,800		(154,800)
	31	Direct Labor	G-20	117,000		(37,800)
	31	Factory Overhead	G-20	187,200		149,400

Write in the blanks for the following:

- (1) The total cost of the direct materials, direct labor, and factory overhead applied in the December 31 goods in process inventory is \$\_\_\_\_\_.
- (2) The company's overhead application rate is \_\_\_\_\_%
- (3) Job No. 6 had \$26,550 of direct labor cost. Therefore, the job must have had \$\_\_\_\_\_ of direct materials cost.
- (4) Job No. 8 had \$73,998 of direct materials cost. Therefore, the job must have had \$\_\_\_\_\_ of factory overhead cost.

121. The following data relates to the Density Company's first operating period. Calculate cost of goods sold for each product.

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

122. The overhead allocation rate in Frantz Company's job order cost accounting 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, \$18,000. At year-end, the total cost of goods in process is \$36,000, which includes \$12,000 of direct labor cost. What amount of direct material cost is included in the ending goods in process inventory?

123. Medlar Corp. maintains a Web-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				Goods in Process Inventory			
Bal.1/1 10,000				Bal 1/1 4,000			f)
a)			b)	c)			
				d)			
				e)			
17,500				g)			

  

Accounts Payable				Finished Goods Inventory			
h)			Bal. 1/1 5,000	j)			l)
			i)	k)			
			Bal. 1/31 9,000	Bal. 1/31 15,000			

  

Factory Overhead				Cost of Goods Sold			
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 are 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 allocation rate is based on direct labor costs. Budgeted (expected) overhead for the year is \$195,000 and budgeted (expected) direct labor is \$390,000.

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

124. Selwyn's Service applied overhead on the basis of direct labor costs during the current year. Overhead applies 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 only \$24,000. Describe (without computations) the alternative procedure that Selwyn might use to record this material difference.

125. Dina Corp. uses a job order cost accounting system. Four jobs were started during the current year. The following is a record of the costs incurred:

<u>Job #</u>	<u>Material Used</u>	<u>Direct Labor Used</u>	<u>Direct Labor Hours Used</u>
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 allocation 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 Dina'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 Goods in Process Inventory, Finished Goods Inventory, and Factory Overhead accounts. Does the Factory Overhead account balance indicate an over- or underapplication of overhead?

126. The following information is available for the Millennium 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 Goods in Process Inventory to Finished 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 materials)	121,800
Rent on factory building	22,400

Millennium Corporation 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 Goods in Process Inventory and Factory Overhead
- (c) Payment of Factory Payroll in cash
- (d) Assignment of Factory Payroll to Goods in Process Inventory and Factory Overhead
- (e) Recording of other factory overhead. Assume that all items other than depreciation are paid in cash.
- (f) Assignment of Factory Overhead to Goods in Process Inventory
- (g) Transfer of goods completed to Finished Goods Inventory
- (h) Recording cost of goods sold
- (i) Assignment of over- or underapplied overhead to Cost of Goods Sold

127. A company that uses a job order cost accounting 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.

128. 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	<u>16,000</u>
Total direct labor	\$52,700
Indirect labor	<u>16,800</u>
Total labor cost	<u>\$69,500</u>

Prepare the necessary journal entries to record factory payroll.

129. A company's predetermined overhead allocation rate is 130% based on direct labor cost. How much overhead would be allocated to Job No. 105 if it required total direct labor costs of \$60,000?

130. Selected information from the budget of the Khalid 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 allocation rate if the company uses the following as a basis:

- (a) Direct labor hours.
- (b) Direct labor cost.
- (c) Machine hours.

131. A manufacturing company uses an overhead allocation rate based on direct labor cost. The company's Goods 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?



132. Bean Company uses a job order cost system and last period incurred \$70,000 of overhead and \$100,000 of direct labor. Bean estimates that its overhead next period will be \$65,000. The company also expects to incur \$100,000 of direct labor. If Bean bases its overhead applied on direct labor cost, what should be the overhead allocation rate for the next period?

133. A company's manufacturing accounting system applies overhead based on direct labor cost. The company's manufacturing costs for the current year were: direct labor, \$57,600; direct materials, \$76,800; and factory overhead, \$9,600. Calculate the company's overhead allocation rate.

134. The job cost sheet for Job number 93-471 includes the following information:

**DIRECT MATERIALS:**

7/12 Requisition R93-566: 20 units @ \$ 3.50 per unit

7/13 Requisition R93-576: 18 units @ \$ 5.00 per unit

7/13 Requisition R93-578: 4 units @ \$25.00 per unit

7/14 Requisition R93-591: 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 93-471?

135. The following calendar year information about the Tahoma Corporation is available on December 31:

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

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

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

Direct materials	\$250,000
Direct labor	410,000
Indirect materials	55,000
Indirect labor	125,000
Sales commissions	50,000
Factory depreciation	170,000
Property taxes, factory	15,000
Factory utilities	35,000
Advertising	62,500
Factory equipment rental	100,000

- (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.

137. 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?

138. Samer Corp. uses a job order cost accounting 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 at end of the year:  
\$103,000, which includes \$38,000 direct labor costs.

Samer Corp.'s predetermined overhead allocation 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.

### Fill in the Blank Questions

139. A \_\_\_\_\_ accounting system records manufacturing activities using a periodic inventory system. A \_\_\_\_\_ accounting system records manufacturing activities using a perpetual inventory system.

\_\_\_\_\_

140. \_\_\_\_\_, or customized production, produces products in response to customer orders.

\_\_\_\_\_

141. A \_\_\_\_\_ is a separate record maintained for each job.

\_\_\_\_\_

142. The collection of job cost sheets for all jobs in process makes up the subsidiary ledger controlled by the \_\_\_\_\_ inventory.

\_\_\_\_\_

143. When a job is finished, its job cost sheet is completed and moved from the jobs in process file to the \_\_\_\_\_ file.

\_\_\_\_\_

144. In a job order cost accounting system, raw materials requisitioned as direct materials are debited to \_\_\_\_\_; indirect materials are debited to \_\_\_\_\_.

\_\_\_\_\_

145. When factory payroll is assigned to specific jobs, \_\_\_\_\_ is debited.

\_\_\_\_\_

146. When factory payroll for indirect labor is assigned, \_\_\_\_\_ is debited.

\_\_\_\_\_

147. A \_\_\_\_\_ 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.

\_\_\_\_\_

## Chapter 02 Job Order Costing and Analysis **Answer Key**

### **True / False Questions**

1. A manufacturing company that uses a cost accounting system normally has only two inventory accounts: Finished Goods Inventory and Goods in Process Inventory.

**FALSE**

*AACSB: Communications  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Easy  
Learning Objective: C1*

2. Cost accounting systems accumulate costs and then assign them to products or services.

**TRUE**

*AACSB: Communications  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Easy  
Learning Objective: C1*

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

**FALSE**

*AACSB: Communications  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: C1*

4. A manufacturing firm that produces a large numbers of standardized units would normally use a job order cost accounting system.

**FALSE**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Easy  
Learning Objective: C2*

5. Job order manufacturing systems would be appropriate for companies that produce custom homes, specialized equipment, and special computer systems.

**TRUE**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Easy  
Learning Objective: C2*

6. Job order manufacturing systems would be appropriate for companies that produce compact disks or disposable cameras.

**FALSE**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Easy  
Learning Objective: C2*

7. A job order cost accounting system would be appropriate for a manufacturer of automobile tires.

**FALSE**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: C2*



8. Job order manufacturing 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: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: C2*

9. A company's file of job cost sheets for finished but unsold jobs equals the balance in the Finished Goods Inventory account.

**TRUE**

*AACSB: Communications  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Easy  
Learning Objective: C3*

10. The raw 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 exerted by employees on the job.

**FALSE**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Easy  
Learning Objective: C3*

11. In a job order cost accounting system, the total balances of all of the job cost sheets for unfinished jobs equal the balance in the Goods in Process Inventory account.

**TRUE**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: C3*

12. A job cost sheet is useful for developing financial accounting numbers but does not contain information that is useful for managing the manufacturing process.

**FALSE**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: C3*

13. 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: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: C3*

14. 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: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: C3*

15. The file of job cost sheets for completed but undelivered jobs equals the balance in the Goods in Process Inventory account.

**FALSE**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: C3*

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

**FALSE**

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Measurement*  
*Difficulty: Easy*  
*Learning Objective: A1*

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

**FALSE**

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Measurement*  
*Difficulty: Easy*  
*Learning Objective: A1*

18. The cost of all direct materials used on a job is debited to the Finished Goods Inventory account.

**FALSE**

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Easy*  
*Learning Objective: P1*

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

**TRUE**

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P1*

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

**TRUE**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: P1*

21. 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: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: P1*

22. Materials requisitions and time tickets are cost accounting source documents.

**TRUE**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: P1  
Learning Objective: P2*

23. A clock card is a source document that an employee uses to report how much time was spent working on a job or on overhead 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.

**FALSE**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: P2*

24. 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: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: P2*

25. 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: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: P2*

26. A clock card is a source document used by an employee to record the total number of hours worked during the pay period.

**TRUE**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: P2*

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

**FALSE**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: P2*

28. Factory overhead is often collected and summarized in a factory overhead ledger.

**TRUE**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Easy  
Learning Objective: P3*

29. The predetermined overhead allocation rate is used to apply overhead cost to products.

**TRUE**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Measurement  
Difficulty: Easy  
Learning Objective: P3*

30. Predetermined overhead rates are necessary because cost accountants use periodic inventory systems.

**FALSE**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Measurement  
Difficulty: Medium  
Learning Objective: P3*

31. The predetermined overhead allocation rate based on direct labor cost is the ratio of estimated overhead cost for the period to estimated direct labor cost for the period.

**TRUE**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: P3*

32. The balance of the Factory Overhead account appears on the income statement.

**FALSE**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: P3*

33. In a job order cost accounting system, indirect labor costs are debited to the Factory Overhead account.

**TRUE**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: P3*

34. Since a predetermined overhead allocation 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: Analytic  
AICPA BB: Industry  
AICPA FN: Measurement  
Difficulty: Medium  
Learning Objective: P3*

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

**FALSE**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: P3*

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

**FALSE**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Easy  
Learning Objective: P4*

37. In a job order cost accounting system, any immaterial underapplied overhead at the end of the period can be charged entirely to Cost of Goods Sold.

**TRUE**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: P4*

38. 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: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: P4*

39. 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: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: P4*



40. Any material amount of under- or overapplied factory overhead must always be closed to Cost of Goods Sold at the end of an accounting period.

**FALSE**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: P4*

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

**FALSE**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: P4*

42. Overapplied overhead is the amount by which overhead applied to jobs using the predetermined overhead allocation rate exceeds the overhead incurred during a period.

**TRUE**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: P4*

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

**TRUE**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: P4*

### Multiple Choice Questions

44. 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: Communications*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Easy*  
*Learning Objective: C1*

45. A system of accounting for manufacturing 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.

*AACSB: Communications*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Easy*  
*Learning Objective: C1*

46. Job order costing systems normally use:

- A. Periodic inventory systems.
- B. Perpetual inventory systems.**
- C. Real inventory systems.
- D. General inventory systems.
- E. All of these.

*AACSB: Communications*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Easy*  
*Learning Objective: C1*

47. In comparison to a general accounting system for a manufacturing company, a cost accounting system places an emphasis on:

- A. Periodic inventory counts.
- B. Total costs.
- C. Unit costs and cost control.**
- D. Products and average costs.
- E. Large volume operations involving standardized products.

*AACSB: Communications*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: C1*

48. A system of accounting for manufacturing operations that uses a periodic inventory system is called a:

- A. Manufacturing accounting system.
- B. Production accounting system.
- C. General accounting system.**
- D. Cost accounting system.
- E. Finished goods accounting system.

*AACSB: Communications*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: C1*

49. The production activities for a customized product represent a(n):

- A. Operation.
- B. Job.**
- C. Unit.
- D. Pool.
- E. Process.

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Easy*  
*Learning Objective: C2*

50. A job order cost accounting 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: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Easy*  
*Learning Objective: C2*

51. A type of manufacturing that produces customized products or services for each customer is called:

- A. Customer orientation manufacturing.
- B.** Job order manufacturing.
- C. Just-in-time manufacturing.
- D. Job lot manufacturing.
- E. Process manufacturing.

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Easy*  
*Learning Objective: C2*

52. Job order manufacturing is also known as:

- A. Mass production manufacturing.
- B. Process manufacturing.
- C. Unit manufacturing.
- D.** Customized manufacturing.
- E. Standard costing.

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Easy*  
*Learning Objective: C2*

53. Dell Builders manufactures each house to customer specifications. It most likely would use:

- A. Capital process costing.
- B. A periodic inventory system.
- C. Unique costing
- D.** Job order costing
- E. Activity-based costing

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Easy*  
*Learning Objective: C2*

54. A job order manufacturing 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: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: C2*

55. Large aircraft manufacturers such as McDonnell Douglas normally use:

- A.** Job order costing.
- B. Process costing.
- C. Mixed costing.
- D. Full costing.
- E. Simple costing.

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: C2*

56. A document in a job order cost accounting 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: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Easy*  
*Learning Objective: C3*

57. 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: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Easy*  
*Learning Objective: C3*

58. The job order cost sheets used by Garza Company revealed the following:

<u>Job. No.</u>	<u>Bal. May 1</u>	<u>May Production Costs</u>
124	\$1,700	\$----
125	1,200	300
126	----	900

Job No. 125 was completed during May and Jobs No. 124 and 125 were shipped to customers in May. What was the company's cost of goods sold for May and the goods 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.

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: C3*

59. A job cost sheet includes:

- A. Direct materials, direct labor, operating costs.
- B. Direct materials, overhead, administrative costs.
- C. Direct labor, overhead, selling costs.
- D.** Direct material, direct labor, overhead.
- E. Direct materials, direct labor, selling costs.

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: C3*

60. 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.

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Easy*  
*Learning Objective: P1*

61. A source document that production managers use to request materials for manufacturing 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: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P1*



62. The Goods in Process Inventory account for the AB Corp. follows:

Goods in Process Inventory		
Beginning balance	4,500	
Direct materials	47,100	
Direct labor	29,600	?
Applied overhead	15,800	
Ending balance	8,900	Finished goods

The cost of units transferred to finished goods is:

- A. \$ 97,000.
- B. \$105,900.
- C. \$ 88,100.**
- D. \$ 95,200.
- E. \$92,500

$$\$4,500 + \$47,100 + \$29,600 + \$15,800 - \$8,900 = \$88,100$$

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Hard*  
*Learning Objective: P1-P3*

63. A company's overhead rate is 60% of direct labor cost. Using the following incomplete accounts, determine the cost of direct materials used.

Goods in Process Inventory		Finished Goods Inventory	
Beg. Bal.	100,800	Beg. Bal.	118,200
D.M.	?		324,800
D.L.	?		301,000
O.H.	?	F. G.	?
End. Bal.	131,040	End. Bal.	142,000
Factory Overhead			
	93,240		90,720

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

$$DL = \$90,720 / .6 = \$151,200$$

$$\$100,800 + DM + \$151,200 + \$90,720 - \$324,800 = \$131,040$$

$$DM = \$113,120$$

AACSB: Analytic  
 AICPA BB: Industry  
 AICPA FN: Reporting  
 Difficulty: Hard  
 Learning Objective: P1-P3

64. During last period, a company's direct labor cost was double the cost of its direct material used. In addition, factory overhead was \$5,000 underapplied. Use the following incomplete accounts to determine the cost of direct labor.

Goods in Process Inventory		Finished Goods Inventory	
Beg. Bal.	60,000	Beg. Bal.	76,000
D.M.	?		? 93,000
D.L.	?		
O.H.	?	F. G.	?
End. Bal.	87,000	End. Bal.	71,000
<b>Factory Overhead</b>			
	75,000		

- A. \$15,000.
- B. \$88,000.
- C. \$45,000.
- D. \$70,000.
- E. \$30,000.**

$FG = FG \text{ end } \$71,000 + COGS \$93,000 - FG \text{ beg } \$76,000 = \$88,000$   
 Applied FOH = \$75,000  
 actual - \$5,000 underapplied = \$70,000  
 Goods in Process Beg \$60,000 + DM x + DL 2x +  
 applied FOH \$70,000 - FG \$88,000 = End \$87,000  
 $\$42,000 + 3x = \$87,000$   
 $3x = \$45,000$   
 $x = \$15,000$  direct material  
 $2x = \$30,000$  direct labor

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Hard*  
*Learning Objective: P1-P3*

65. During last period, a company's overhead rate was 150% of direct labor cost. This caused factory overhead to be \$10,000 overapplied. Use the following incomplete accounts to determine the cost of goods sold.

Goods in Process Inventory		Finished Goods Inventory	
Beg. Bal.	10,000	Beg. Bal.	30,000
D.M.	80,000		?
D.L.	?		?
O.H.	?	F. G.	?
End. Bal.	20,000	End. Bal.	70,000
Factory Overhead			
50,000			

- A.** \$130,000.
- B. \$170,000.
- C. \$ 40,000.
- D. \$ 60,000.
- E. \$ 90,000.

Applied FOH = \$50,000 actual + \$10,000 overapplied = \$60,000  
 Direct Labor = \$60,000/1.5 = \$40,000  
 Finished Goods = GIP beg \$10,000 + DM \$80,000 + DL \$40,000 + Applied FOH \$60,000 - End GIP \$20,000 = \$170,000  
 Cost of Goods Sold = Beg FG \$30,000 + FG \$170,000 - End FG \$70,000 = \$130,000

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Hard*  
*Learning Objective: P1-P3*

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

- A. Job cost sheet.
- B. Hours-of-production sheet.
- C. Time ticket.
- D. Job order ticket.
- E.** Clock card.

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P2*

67. 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.

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P2*

68. When factory payroll costs are recorded in a job cost accounting system:

- A. Factory Payroll is debited and Goods in Process is credited.
- B.** Goods 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. Goods in Process is debited and factory payroll is credited.

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P2*

69. Penn Company uses a job order cost accounting system. In the last month, the system accumulated labor time tickets totaling \$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 Penn make to assign the Factory Payroll?

(A)	Payroll Expense	28,900	
	Cash		28,900
(B)	Payroll Expense	24,600	
	Factory Overhead	4,300	
	Factory Payroll		28,900
(C)	Goods in Process Inventory	24,600	
	Factory Overhead	4,300	
	Factory Payroll		28,900
(D)	Goods in Process Inventory	24,600	
	Factory Overhead	4,300	
	Accrued Wages Payable		28,900
(E)	Goods in Process Inventory	28,900	
	Factory Payroll		28,900

- A. A Above
- B. B Above
- C. C Above**
- D. D Above
- E. E Above

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P2*

70. Labor costs in manufacturing can be:

- A. Direct or indirect.
- B. Indirect or sunk.
- C. Direct or payroll.
- D. Indirect or payroll.
- E. Direct or sunk.

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P2*

71. Canberra Company uses a job order cost accounting system. During the current month, the factory payroll of \$180,000 was paid in cash. The amount of labor classified as indirect labor was three times greater than the amount classified as indirect labor. What amount should be debited to Factory Overhead for indirect labor for this month?

- A. \$135,000.
- B. \$180,000.
- C. \$ 45,000.
- D. \$ 60,000.
- E. \$ 20,000.

$$\text{Factory Payroll} = \text{Indirect Labor} + \text{Direct Labor} \$180,000 = x + 3x\$180,000 = 4x\$45,000 = x$$

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Hard*  
*Learning Objective: P2*

72. 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.

$$\$20,000 \times 1.25 = \$25,000$$

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Easy*  
*Learning Objective: P3*

73. Canoe Company's manufacturing accounting system uses direct labor costs to apply overhead to goods in process and finished goods inventories. Canoe Company's manufacturing 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%.

$$\text{OH rate} = \text{OH applied/DI} = \$6,000/\$30,000 = 20\%$$

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Easy*  
*Learning Objective: P3*



74. 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.** Goods in Process Inventory.

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P3*

75. The rate established prior to the beginning of a period that relates estimated overhead to an allocation factor such as estimated direct labor, and that is used to assign overhead cost to jobs, is the:

- A.** Predetermined overhead allocation rate.
- B. Overhead variance rate.
- C. Estimated labor cost rate.
- D. Chargeable overhead rate.
- E. Miscellaneous overhead rate.

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P3*

76. BVD Company uses a job order cost accounting system and last period incurred \$80,000 of overhead and \$100,000 of direct labor. BVD estimates that its overhead next period will be \$75,000. It also expects to incur \$100,000 of direct labor. If BVD bases applied overhead on direct labor cost, their overhead application rate for the next period should be:

- A. 75%.
- B. 80%.
- C. 107%.
- D. 125%.
- E. 133%.

$$\text{OH rate} = \$75,000/\$100,000 = 75\%$$

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P3*

77. O.K. Company uses a job order cost accounting system and allocates its overhead on the basis of direct labor costs. O.K. 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 O.K. Company's overhead application rate?

- A. 6.25%.
- B. 62.5%.
- C. 160%.
- D. 1600%.
- E. 67%.

$$\text{Total DL Cost} = 50,000 \text{ hours} \times \$10/\text{hr} = \$500,000 \quad \text{OH rate} = \$800,000/\$500,000 = 160\%$$

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P3*

78. Austin Company uses a job order cost accounting 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 allocation 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.

$$\text{OH rate} = \$1,500,000 / 200,000 \text{ hours} = \$7.50/\text{hour}$$

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P3*

79. The R&R Company's manufacturing costs for August are: direct labor, \$13,000; indirect labor, \$6,500; direct materials, \$15,000; taxes on raw materials and work in process, \$800; heat, lights and power, \$1,000; and insurance on plant and equipment, \$200. R&R Company's factory overhead incurred for August is:

- A. \$ 2,000.
- B. \$ 6,500.
- C. \$ 8,500.**
- D. \$21,500.
- E. \$36,500.

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P3*

80. Deltan Corp. allocates overhead to production on the basis of direct labor costs. If Deltan'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. 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.

$$\text{OH rate} = \$450,000/\$180,000 = 250\% \text{ OH allocated} = 250\% \times \$20,000 = \$50,000$$

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Hard*  
*Learning Objective: P3*

81. A company allocates overhead to production on the basis of direct labor costs. If the company's total estimated overhead is \$870,000 and estimated direct labor is \$1,160,000, determine the amount of overhead to be allocated to finished goods inventory. There is \$791,000 of total direct labor cost in the jobs in the finished goods inventory.

- A. \$1,054,667.
- B.** \$ 593,250.
- C. \$1,275,853.
- D. \$1,079,482.
- E. \$ 79,000.

$$\text{OH rate} = \$870,000/\$1,160,000 = 75\% \text{ OH allocated} = 75\% \times \$791,000 = \$593,250$$

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Hard*  
*Learning Objective: P3*

82. The Goods 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%.

$$\text{GIP} = \text{DM} + \text{DL} + \text{OH} \quad \$4,400 = \$2,000 + \$800 + \text{OH} \quad \text{OH} = \$1,600$$
$$\text{OH rate} = \$1,600 / \$800 = 200\%$$

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Hard*  
*Learning Objective: P3*

83. The Goods in Process Inventory account of a manufacturing company that uses an overhead rate based on direct labor cost has a \$7,750 debit balance after all posting is completed. The cost sheet of the one job still in process shows direct material cost of \$6,000 and direct labor cost of \$1,000. Therefore, the company's overhead application rate is:

- A. 10.7%.
- B. 75.0%.**
- C. 133.0%.
- D. 90.3%.
- E. 111.0%.

$$\text{GIP} = \text{DM} + \text{DL} + \text{OH} \quad \$7,750 = \$6,000 + \$1,000 + \text{OH} \quad \text{OH} = \$750$$
$$\text{OH rate} = \$750 / \$1,000 = 75.0\%$$

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Hard*  
*Learning Objective: P3*

84. Using the following accounts and an overhead rate of 90% of direct labor cost, determine the amount of applied overhead.

Goods in Process Inventory		Finished Goods Inventory	
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.

$$\begin{aligned}
 & \$17,600 + 52,800 + DL + OH - 201,520 = \$36,080 \\
 & DL + OH = \$167,200 \\
 & DL + .9DL = \$167,200 \\
 & 1.9DL = \$167,200 \\
 & DL = \$88,000 \\
 & \$88,000 + OH = \$167,200 \\
 & OH = \$79,200
 \end{aligned}$$

AACSB: Analytic  
 AICPA BB: Industry  
 AICPA FN: Reporting  
 Difficulty: Hard  
 Learning Objective: P3

85. Using the following accounts and an overhead rate of 80% of direct labor cost, determine the amount of applied overhead.

Goods in Process Inventory		Finished Goods Inventory	
Beg. Bal.	53,000	Beg. Bal.	9,000
D.M.	48,000		200,000
D.L.	?		129,000
O.H.	?	F. G.	?
End. Bal.	36,000	End. Bal.	80,000

- A. \$135,000.
- B. \$ 75,000.
- C.** \$ 60,000.
- D. \$101,000.
- E. \$ 17,000.

$$\begin{aligned}
 & \$53,000 + 48,000 + DL + OH - 200,000 = \$36,000 \\
 & DL + OH = \$135,000 \\
 & DL + .8DL = \$135,000 \\
 & 1.8DL = \$135,000 \\
 & DL = \$75,000 \\
 & \$75,000 + OH = \$135,000 \\
 & OH = \$60,000
 \end{aligned}$$

AACSB: Analytic  
 AICPA BB: Industry  
 AICPA FN: Reporting  
 Difficulty: Hard  
 Learning Objective: P3

86. If one unit of Product X 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.

$$\begin{aligned}
 \text{Cost of goods sold} &= DM + DL + OH = \$2.50 + \$3.00 + .3(\$3.00) = \$6.40 \\
 \text{Gross profit} &= \text{Sales} - \text{cost of goods sold} = \$8.00 - \$6.40 = \$1.60
 \end{aligned}$$

AACSB: Analytic  
 AICPA BB: Industry  
 AICPA FN: Reporting  
 Difficulty: Hard  
 Learning Objective: P3

87. If one unit of Product X used \$.75 of direct materials and \$6.00 of direct labor, sold for \$12.00, and was assigned overhead at the rate of 20% of direct labor costs, how much gross profit was realized from this sale?

- A. \$12.00.
- B. \$6.75.
- C. \$.75.
- D. \$1.20.
- E. \$4.05.**

Cost of goods sold = DM + DL + OH = \$.75 + \$6.00 + .2(\$6.00) = \$7.95  
Gross profit = Sales - cost of goods sold = \$12.00 - \$7.95 = \$4.05

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Hard*  
*Learning Objective: P3*

88. 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.

DM + DL + OH = Total cost  
DM + (\$3,000/.75) + \$3,000 = \$9,000  
DM + \$4,000 + \$3,000 = \$9,000  
DM = \$2,000

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Hard*  
*Learning Objective: P3*



89. The ending inventory of finished goods has a total cost of \$10,000 and consists of 500 units. If the overhead applied to these goods is \$2,000, and the overhead rate is 50% of direct labor, how much direct materials cost was incurred in producing these units?

- A.** \$4,000.
- B. \$6,000.
- C. \$3,000.
- D. \$7,000.
- E. \$10,000.

$$\begin{aligned} \text{DM} + \text{DL} + \text{OH} &= \text{Total cost} \\ \text{DM} + (\$2000 / .5) + \$2,000 &= \$10,000 \\ \text{DM} + \$4,000 + \$2,000 &= \\ \$10,000 \\ \text{DM} &= \$4,000 \end{aligned}$$

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Hard*  
*Learning Objective: P3*

90. A manufacturing company uses a job order cost accounting system. Overhead is applied using direct labor hours as an allocation base. Total costs for a particular job were \$5,720. Of this amount \$2,600 was direct labor and \$1,040 was direct material. The company pays \$26 per hour of direct labor and \$2 per pound of direct materials. What is this company's overhead rate?

- A. \$26.00 per direct labor hour.
- B.** \$20.80 per direct labor hour.
- C. \$ 4.00 per direct labor hour.
- D. \$80.00 per direct labor hour.
- E. \$2,080 per direct labor hour.

$$\begin{aligned} \text{DM} + \text{DL} + \text{OH} &= \text{Total cost} \\ \$1,040 + \$2,600 + x &= \$5,720 \\ x &= \$2,080 \text{ applied overhead} \\ \text{Total DL cost} / \text{DL cost per hour} &= \text{number of DL hours} \\ \$2,600 / \$26 &= 100 \text{ direct labor} \\ \text{hours} & \\ \text{Predetermined overhead rate} \times \text{allocation base} &= \text{applied overhead} \\ ? \times 100 \text{ DL hours} &= \\ \$2,080? &= \$2,080 / 100? = \$20.80 \text{ per DL hour} \end{aligned}$$

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Hard*  
*Learning Objective: P3*

91. A manufacturing company uses a job order cost accounting system. Overhead is applied using pounds of direct materials used as an allocation base. Total costs for a particular job were \$5,720. Of this amount \$2,600 was direct labor and \$1,040 was direct material. The company pays \$26 per hour of direct labor and \$2 per pound of direct materials. What is this company's overhead rate?

- A. \$2 per pound of direct material used.
- B. \$1,040 per pound of direct material used.
- C. \$520 per pound of direct material used.
- D. \$4 per pound of direct material used.**
- E. \$2,080 per pound of direct material used.

$DM + DL + OH = \text{Total cost}$   
 $\$1,040 + \$2,600 + x = \$5,720$   
 $x = \$2,080$  applied overhead  
Total DM cost / DM cost per pound = number of DM pounds  
 $\$1,040 / \$2 = 520$  pounds of DM  
Predetermined overhead rate x allocation base = applied overhead?  
 $x 520 \text{ DM pounds} = \$2,080$ ?  
 $= \$2,080 / 520 = \$4.00$  per pound of DM

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Hard*  
*Learning Objective: P3*

92. At the current year-end, Hardly Company found that its overhead was underapplied by \$2,500, and this amount was not deemed to be a material amount. Based on this information, Hardly 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.

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Easy*  
*Learning Objective: P4*

93. If overhead applied is less than actual overhead, it is:

- A. Fully applied.
- B.** Underapplied.
- C. Overapplied.
- D. Expected.
- E. Normal.

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Easy*  
*Learning Objective: P4*

94. 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: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P4*

95. 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.

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P4*

96. If a company applies overhead to production with a predetermined 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 was less than the overhead amount charged to production.
- D. The overhead was underapplied for the period.
- E. Actual overhead was greater than the overhead amount charged to production.

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P4*

97. M.A.E. 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, M.A.E. Company's Factory Overhead account has a credit balance of \$5,000, which is not a material amount. What entry should M.A.E. make at year-end?

- (A) No entry is needed.
- (B)

Factory Overhead	5,000	
Cost of Goods Sold		5,000
- (C)

Cost of Goods Sold	5,000	
Factory Overhead		5,000
- (D)

Factory Overhead	5,000	
Goods in Process Inventory		5,000
- (E)

Factory Overhead	5,000	
Finished Goods		5,000

- A. A Above
- B.** B Above
- C. C Above
- D. D Above
- E. E Above

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P4*

98. 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 Goods in Process Inventory for \$600.
- E.** A credit to Cost of Goods Sold for \$600.

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P4*

99. If it is a material amount, overapplied or underapplied overhead should be disposed of by allocating it to:

- A. Cost of goods sold and finished goods.
- B. Finished goods and goods in process.
- C.** Goods in process, finished goods, and cost of goods sold.
- D. Goods in process, if immaterial.
- E. Raw materials, goods in process, and finished goods.

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P4*

100. The Dina 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) | Cost of Goods Sold  | 5,600 |       |
|     | Factory Overhead    |       | 5,600 |
| (B) | Factory Overhead    | 5,600 |       |
|     | Cost of Goods Sold  |       | 5,600 |
| (C) | Factory Overhead    | 5,600 |       |
|     | Goods in Process    |       | 5,600 |
| (D) | Goods in Process    | 5,600 |       |
|     | Factory Overhead    |       | 5,600 |
| (E) | No entry is needed. |       |       |

- A. A Above  
**B. B Above**  
 C. C Above  
 D. D Above  
 E. E Above

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P4*

### Matching Questions

101. Match the following terms to the appropriate definition.

- |   |   |
|---|---|
| 1. Underapplied overhead                  | An accounting system for manufacturing activities based on the periodic inventory system. <b><u>6</u></b>   |
| 2. Job order manufacturing                | A source document that is used to report how much time an employee spent working on a job or on overhead activities and then to determine the amount of direct labor to charge to the job or the amount of indirect labor to charge to overhead. <b><u>11</u></b> |
| 3. Clock card                             | A source document that production managers use to request materials for manufacturing and that is used to assign materials costs to specific jobs or to overhead. <b><u>3</u></b>   |
| 4. Materials ledger card                  | The amount by which overhead incurred in a period exceeds the overhead applied to jobs with the predetermined overhead allocation rate. <b><u>7</u></b>   |
| 5. Job cost sheet                         | The production of products in response to special orders; also called customized production. <b><u>1</u></b>  |
| 6. General accounting system              | The amount by which the overhead applied to jobs in a period with the predetermined overhead allocation rate exceeds the overhead incurred in a period. <b><u>2</u></b>   |
| 7. Materials requisition                  | A separate record maintained for each job in a job order costing system; it shows direct materials, direct labor, and overhead for each job. <b><u>10</u></b>   |
| 8. Predetermined overhead allocation rate | A cost accounting system designed to determine the cost of producing each job or job lot. <b><u>5</u></b>   |
| 9. Job order cost accounting system       | 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. <b><u>9</u></b>  |
| 10. Overapplied overhead                  | A perpetual record that is updated each time units of raw material are both purchased and issued for use in production. <b><u>8</u></b>   |
| 11. Time ticket                           | production. <b><u>4</u></b>   |

AACSB: Analytic  
 AICPA BB: Industry  
 AICPA FN: Reporting  
 Difficulty: Medium  
 Learning Objective: C1-C3  
 Learning Objective: P1-P4

### Short Answer Questions

102. 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, goods 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 cost accounting.

*AACSB: Communications*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Easy*  
*Learning Objective: C1*

103. How have some computer manufacturers implemented the concept of job order cost accounting?

Dell Computer, for example, customizes orders and sells direct by telephone or by using the Internet. In this way, these manufacturers are attempting to make a "standard" product more "custom-made" for the customer.

*AACSB: Communications*  
*AICPA BB: Industry*  
*AICPA FN: Decision Making*  
*Difficulty: Medium*  
*Learning Objective: C2*

104. 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.

*AACSB: Communications*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: C3*



105. 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 has 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: Communications*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: A1*

106. Describe how materials flow through a job order cost accounting 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.

*AACSB: Communications*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P1*

107. Describe the flow of labor costs in a job order costing system, and identify the documents used in the system.

The flow of labor costs in a job order costing system begins with clock cards. Clock cards are source documents that are used by each employee to record their hours worked, and are used to record the factory payroll each pay period. Labor is assigned to specific jobs using time tickets. Time tickets are used by employees to keep track of the time they spend on a specific job, in both direct labor and indirect labor time. These time tickets are recorded in the accounting system with a debit to Goods in Process Inventory for the direct labor, a debit to Factory Overhead for the indirect labor, and a credit to Factory Payroll for the total amount of both the direct and indirect labor.

*AACSB: Communications*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P2*

108. Explain what a predetermined overhead allocation rate is, how it is calculated, and why it is used.

A predetermined overhead allocation rate is used to apply factory overhead costs to jobs produced during the period. It is calculated by relating estimated overhead costs for a period to 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: Communications*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P3*

109. Briefly describe how manufacturing firms dispose of overapplied or underapplied factory overhead.

If overapplied or underapplied overhead is immaterial, cost of goods sold is used for its disposal. If the amount is material, it is allocated among cost of goods sold, finished goods, and goods in process.

*AACSB: Communications*

*AICPA BB: Industry*

*AICPA FN: Reporting*

*Difficulty: Medium*

*Learning Objective: P4*

**Essay Questions**

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

<u>Number</u>	<u>Total Cost Incurred</u>	<u>Status of Job</u>
444	\$15,050	Finished and delivered
445	\$22,400	Finished and delivered
446	\$ 7,500	Finished and unsold
447	\$ 4,300	Finished and delivered
448	\$33,000	Finished and unsold
449	\$62,000	Finished and unsold
450	\$14,600	Unfinished
451	\$22,200	Finished and delivered
452	\$ 3,600	Unfinished
453	\$ 1,000	Unfinished

- (a) What is the cost of goods sold for the month of March?
- (b) What is the cost of the goods in process inventory on March 31?
- (c) What is the cost of the finished goods inventory on March 31?

- (a) Cost of goods sold for March:
- (b) Cost of the goods in process inventory on March 31:

<u>Number</u>	<u>Total Cost Incurred</u>	<u>Status of Job</u>
444	\$15,050	Finished and delivered
445	22,400	Finished and delivered
447	4,300	Finished and delivered
451	22,200	Finished and delivered
Total	<u>\$63,950</u>	

(c) Cost of the finished goods inventory on March 31:

<u>Number</u>	<u>Total Cost Incurred</u>	<u>Status of Job</u>
446	\$ 7,500	Finished and unsold
448	33,000	Finished and unsold
449	<u>62,000</u>	Finished and unsold
Total	<u>\$102,500</u>	

AACSB: Analytic  
 AICPA BB: Industry  
 AICPA FN: Reporting  
 Difficulty: Hard  
 Learning Objective: C3

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

<u>Number</u>	<u>Total Cost Incurred</u>	<u>Status of Job</u>
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 unsold
962	\$ 8,500	Unfinished
963	\$11,200	Finished and unsold

- (a) What is the cost of the goods in process inventory on June 30?
- (b) What is the cost of the finished goods inventory on June 30?
- (c) What is the cost of goods sold for the month of June?

(a) Cost of the goods in process inventory on June 30:

<u>Number</u>	<u>Total Cost Incurred</u>	<u>Status of Job</u>
952	\$ 7,700	Unfinished
957	35,000	Unfinished
959	500	Unfinished
960	22,110	Unfinished
962	<u>8,500</u>	Unfinished
Total	<u>\$73,810</u>	

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

<u>Number</u>	<u>Total Cost Incurred</u>	<u>Status of Job</u>
953	\$ 9,300	Finished and unsold
955	3,000	Finished and unsold
961	7,200	Finished and unsold
963	<u>11,200</u>	Finished and unsold
Total	<u>\$30,700</u>	

(c) Cost of goods sold for June:

<u>Number</u>	<u>Total Cost Incurred</u>	<u>Status of Job</u>
951	\$ 4,200	Finished and delivered
954	11,100	Finished and delivered
956	5,500	Finished and delivered
958	<u>3,200</u>	Finished and delivered
Total	<u>\$24,000</u>	

AACSB: Analytic  
 AICPA BB: Industry  
 AICPA FN: Reporting  
 Difficulty: Hard  
 Learning Objective: C3

112. Plumley Ad Agency contracted with a company to prepare an ad campaign. Plumley uses a job order costing system. Plumley estimates that the job will take 145 designer hours at \$90 per hour and 85 staff hours at \$45 per hour. Plumley 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 (145 hours @ \$90 per hour)	\$13,050	
Staff (85 hours @ \$45 per hour)	<u>3,825</u>	
Total direct labor		\$16,875
Overhead:		
Designer-related (145 hours @ \$100 per hour)	\$14,500	
Staff-related (85 hours @ \$50 per hour)	<u>4,250</u>	
Total overhead		<u>18,750</u>
Total estimated cost		<u>\$35,625</u>

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: A1*

113. Erlander Company uses a job order cost accounting system. On November 1, \$15,000 of direct materials and \$3,500 of indirect materials were requisitioned for production. Prepare the general journal entry to record this requisition.

11/1	Goods in process inventory	15,000	
	Factory overhead	3,500	
	Raw materials inventory		18,500

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P1*

114. RC Corp. uses a job order cost accounting system. During the month of April, 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) Paid factory payroll for the month totaling \$37,700 which includes \$8,200 indirect labor.
- (d) Assigned the factory payroll to jobs and overhead.

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

(a)	Raw Materials Inventory	32,000	
	Accounts Payable		32,000
(b)	Goods in Process Inventory	25,800	
	Factory Overhead	10,500	
	Raw Materials Inventory		36,300
(c)	Factory Payroll	37,700	
	Cash		37,700
(d)	Goods in Process Inventory	29,500	
	Factory Overhead	8,200	
	Factory Payroll		37,700

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P1-P2*



115. Key Manufacturing 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 Key's goods 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 goods in process inventory		\$28,000
Deduct: Direct labor	\$5,200	
Factory overhead ( $\$5,200 \times 150\%$ )	<u>7,800</u>	<u>13,000</u>
Direct materials		<u>\$15,000</u>

(2) The overhead rate is 150%. (part 1)

Total cost of finished goods inventory	\$34,300
Direct materials	<u>8,100</u>
Direct labor and factory overhead costs	<u>\$26,200</u>

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

Direct Labor = \$10,480

OH = DL  $\times$  1.5

OH = \$10,480  $\times$  1.5

OH = \$15,720

AACSB: Analytic  
 AICPA BB: Industry  
 AICPA FN: Reporting  
 Difficulty: Medium  
 Learning Objective: P1-P3

116. PRO, 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 and paid labor costs of \$250,000 cash (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 Inventory	140,000	
	Accounts Payable		140,000
(b)	Goods in Process Inventory	104,000	
	Factory Overhead	26,000	
	Raw Materials Inventory		130,000
(c)	Accrued Payroll	250,000	
	Cash		250,000
	Goods in Process Inventory	175,000	
	Factory Overhead	75,000	
	Accrued Payroll		250,000
(d)	Factory Overhead	20,000	
	Accounts Payable		20,000
(e)	Goods in Process Inventory	140,000	
	Factory Overhead		140,000
	(\$175,000 × 80% = \$140,000)		
(f)	Factory Overhead	22,000	
	Accumulated Depreciation—Factory		22,000

AACSB: Analytic  
 AICPA BB: Industry  
 AICPA FN: Reporting  
 Difficulty: Medium  
 Learning Objective: P1-P3

117. Prepare journal entries to record the following transactions and events for April using a job order cost accounting 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 (paid in cash), 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 Inventory	69,000	
	Accounts Payable		69,000
(b)	Goods in Process Inventory	26,000	
	Factory Overhead	5,400	
	Raw Materials Inventory		31,400
(c)	Factory Payroll	46,000	
	Cash		46,000
	Goods in Process Inventory	36,500	
	Factory Overhead	9,500	
	Factory Payroll		46,000
(d)	Factory Overhead	14,500	
	Cash		14,500
(e)	Goods in Process Inventory	28,200	
	Factory Overhead		28,200
(f)	Finished Goods Inventory	77,500	
	Goods in Process Inventory		77,500
(g)	Accounts Receivable	103,000	
	Sales		103,000
	Cost of Goods Sold	58,800	
	Finished Goods Inventory		58,800

Chapter 02 Job Order Costing and Analysis

AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: P1-P3

118. A company's ending inventory of finished goods has a cost of \$35,000 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 goods inventory	\$ 8,400
Direct labor in finished goods inventory ( $\$8,400/0.60$ )	<u>14,000</u>
Total factory overhead and direct labor	22,400
Total job cost	\$35,000
Factory overhead and direct labor	<u>22,400</u>
Direct materials	<u>\$12,600</u>

AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: P1-P3

119. The production of one unit of Product BBB used \$17.50 of direct materials and \$21.00 of direct labor. The unit sold for \$56.00 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		\$56.00
Direct materials	\$17.50	
Direct labor	21.00	
Overhead applied ( $\$21 \times .3$ )	<u>6.30</u>	
Total job cost per unit		<u>44.80</u>
Gross profit per unit		<u>\$11.20</u>

AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: P1-P3

120. A company uses a job order cost accounting system and applies overhead on the basis of direct labor cost. At the end of a recent period, the company's Goods in Process Inventory account appeared as follows:

Goods in Process					
Date		Explanation	PR	Debit	Credit Balance
Mar.	17	Job No. 5 completed	G-8		90,900 (17,100)
Apr.	13	Job No. 6 completed	G-10		131,400 (148,500)
July	20	Job No. 7 completed	G-12		73,800 (222,300)
Oct.	11	Job No. 8 completed	G-15		168,300 (390,600)
Dec.	31	Direct Materials	G-20	235,800	(154,800)
	31	Direct Labor	G-20	117,000	(37,800)
	31	Factory Overhead	G-20	187,200	149,400

Write in the blanks for the following:

(1) The total cost of the direct materials, direct labor, and factory overhead applied in the December 31 goods in process inventory is \$\_\_\_\_\_.

(2) The company's overhead application rate is \_\_\_\_\_%

(3) Job No. 6 had \$26,550 of direct labor cost. Therefore, the job must have had \$\_\_\_\_\_ of direct materials cost.

(4) Job No. 8 had \$73,998 of direct materials cost. Therefore, the job must have had \$\_\_\_\_\_ of factory overhead cost.

(1) \$149,400 (ending balance of account)

(2)  $(\$187,200/\$117,000) \times 100\% = 160\%$

(3)  $\$26,550 \times 160\% = \$42,480$

$\$131,400 - \$26,550 - \$42,480 = \$62,370$

(4)  $\$168,300 - \$73,998 = \$94,302$  Direct labor + OH

260% Direct labor = \$94,302

Direct labor = \$36,270

OH =  $\$94,302 - \$36,270 = \$58,032$

AACSB: Analytic  
 AICPA BB: Industry  
 AICPA FN: Reporting  
 Difficulty: Medium  
 Learning Objective: P1-P3

121. The following data relates to the Density Company's first operating period. Calculate cost of goods sold for each product.

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

	<u>A</u>	<u>B</u>	<u>C</u>
Direct materials	\$10.00	\$ 8.00	\$14.00
Direct labor	12.00	15.00	10.00
Overhead*	<u>7.20</u>	<u>6.00</u>	<u>8.00</u>
Total cost	\$29.20	\$29.00	\$32.00
Units sold**	<u>x 100</u>	<u>x 150</u>	<u>x 50</u>
Cost of goods sold	\$2,920	\$4,350	\$1,600

\* Overhead applied:

A:  $\$12.00 \times 60\% = \$7.20$

B:  $\$15.00 \times 40\% = \$6.00$

C:  $\$10.00 \times 80\% = \$8.00$

\*\* 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

AACSB: Analytic  
 AICPA BB: Industry  
 AICPA FN: Reporting  
 Difficulty: Medium  
 Learning Objective: P1-P3

122. The overhead allocation rate in Frantz Company's job order cost accounting 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, \$18,000. At year-end, the total cost of goods in process is \$36,000, which includes \$12,000 of direct labor cost. What amount of direct material cost is included in the ending goods in process inventory?

Direct labor in goods in process inventory	\$12,000
Factory overhead in goods in process inventory (\$12,000 x .125)	<u>1,500</u>
Total factory overhead and direct labor	13,500
Total cost in goods in process inventory	\$36,000
Factory overhead and direct labor	<u>13,500</u>
Direct materials	<u>\$22,500</u>

Overhead rate =  $\$18,000 / \$144,000 = 12.5\%$

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Hard*  
*Learning Objective: P1-P3*

123. Medlar Corp. maintains a Web-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				Goods in Process Inventory			
Bal.1/1 10,000				Bal 1/1 4,000			f)
a)			b)	c)			
				d)			
				e)			
17,500				g)			

  

Accounts Payable				Finished Goods Inventory			
h)			Bal. 1/1 5,000	j)			l)
			i)	k)			
			Bal. 1/31 9,000	Bal. 1/31 15,000			

  

Factory Overhead				Cost of Goods Sold			
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 are 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 allocation rate is based on direct labor costs. Budgeted (expected) overhead for the year is \$195,000 and budgeted (expected) direct labor is \$390,000.

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



Raw Materials Inventory			Goods in Process Inventory		
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		f) COGM 90,000
17,500			g) 4,250		

Accounts Payable			Finished Goods Inventory		
h) 45,000		Bal. 1/1 5,000	j) Bal 1/1 10,000		
		i) 49,000			
			k) COGM 90,000		l) 85,000
		Bal. 1/31 9,000	Bal. 1/31 15,000		

Factory Overhead			Cost of Goods Sold		
m) OH 17,000		n) OH 16,250	o) 85,000		
(actual)		(applied)			

AACSB: Analytic  
 AICPA BB: Industry  
 AICPA FN: Reporting  
 Difficulty: Hard  
 Learning Objective: P1-P3

124. Selwyn's Service applied overhead on the basis of direct labor costs during the current year. Overhead applies 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 only \$24,000. Describe (without computations) the alternative procedure that Selwyn might use to record this material difference.

(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 and Goods in Process.

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P1-P4*

125. Dina Corp. uses a job order cost accounting system. Four jobs were started during the current year. The following is a record of the costs incurred:

<u>Job #</u>	<u>Material Used</u>	<u>Direct Labor Used</u>	<u>Direct Labor Hours Used</u>
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 allocation 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 Dina's first year of operations:

- Make the necessary journal entries to charge the costs to the jobs started and to record the completion and sale of finished jobs.
- Calculate the balance in the Goods in Process Inventory, Finished Goods Inventory, and Factory Overhead accounts. Does the Factory Overhead account balance indicate an over- or underapplication of overhead?

(a)

Job No.	Direct materials	Direct labor	Overhead applied*	Total job 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	<u>26,000</u>	<u>40,000</u>	<u>12,000</u>	<u>78,000</u>
Totals	\$165,000	\$219,000	\$55,200	\$439,200

Job 1010: 8,000 hours x \$2.40/hour = \$19,200

Job 1011: 7,000 hours x \$2.40/hour = \$16,800

Job 1012: 3,000 hours x \$2.40/hour = \$7,200

Job 1013: 5,000 hours x \$2.40/hour = \$12,000

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

(b)

Goods in Process Inventory Job 1011 \$152,800

Finished Goods: Job 1012 \$72,200

Factory Overhead:

Applied \$55,200

Actual 55,800

\$ 600 debit balance (underapplied)

## Chapter 02 Job Order Costing and Analysis

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P1-P4*

126. The following information is available for the Millennium 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 Goods in Process Inventory to Finished 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 materials)	121,800
Rent on factory building	22,400

Millennium Corporation 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 Goods in Process Inventory and Factory Overhead
- (c) Payment of Factory Payroll in cash
- (d) Assignment of Factory Payroll to Goods in Process Inventory and Factory Overhead
- (e) Recording of other factory overhead. Assume that all items other than depreciation are paid in cash.
- (f) Assignment of Factory Overhead to Goods in Process Inventory
- (g) Transfer of goods completed to Finished Goods Inventory
- (h) Recording cost of goods sold
- (i) Assignment of over- or underapplied overhead to Cost of Goods Sold

a.	Raw Materials Inventory	116,200	
	Accounts Payable		116,200
b.	Goods in Process Inventory	114,800	
	Factory Overhead	7,000	
	Raw Materials Inventory		121,800
c.	Factory Payroll (\$64,750 + \$8,400)	73,150	
	Cash		73,150
d.	Goods in Process Inventory	64,750	
	Factory Overhead	8,400	
	Factory Payroll		73,150
e.	Factory Overhead	75,600	
	Accumulated Depreciation–factory equipment		25,200
	Cash		50,400
f.	Goods in Process Inventory	97,125	
	Factory Overhead (64,750 x 150%)		97,125
g.	Finished Goods Inventory	285,150	
	Goods in Process Inventory		285,150
h.	Cost of Goods Sold	292,000	
	Finished Goods Inventory		292,000
i.	Factory Overhead	6,125	
	Cost of Goods Sold		6,125
	Actual Overhead = \$7,000 + 8,400 + 75,600 = \$91,000		
	Overhead applied =	<u>\$97,125</u>	
	Overapplied overhead =	<u>\$ 6,125</u>	

AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Hard  
Learning Objective: P1-P4

127. A company that uses a job order cost accounting 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 31	Goods in Process Inventory	8,000	
	Factory Overhead	2,000	
	Factory Payroll		10,000

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P2*

128. 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	<u>16,000</u>
Total direct labor	\$52,700
Indirect labor	<u>16,800</u>
Total labor cost	<u>\$69,500</u>

Prepare the necessary journal entries to record factory payroll.

Factory Payroll	69,500	
Cash		69,500
Goods in Process	52,700	
Factory Overhead	16,800	
Factory Payroll		69,500

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P2*



129. A company's predetermined overhead allocation rate is 130% based on direct labor cost. How much overhead would be allocated to Job No. 105 if it required total direct labor costs of \$60,000?

$$\$60,000 \times 130\% = \$78,000$$

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Easy*  
*Learning Objective: P3*

130. Selected information from the budget of the Khalid 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 allocation 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

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Easy*  
*Learning Objective: P3*

131. A manufacturing company uses an overhead allocation rate based on direct labor cost. The company's Goods 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?

$$(\$15,000 - \$6,600 - \$3,000) / \$3,000 = 180\%$$

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P3*

132. Bean Company uses a job order cost system and last period incurred \$70,000 of overhead and \$100,000 of direct labor. Bean estimates that its overhead next period will be \$65,000. The company also expects to incur \$100,000 of direct labor. If Bean bases its overhead applied on direct labor cost, what should be the overhead allocation rate for the next period?

$$\frac{\$65,000}{\$100,000} = 65\%$$

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P3*

133. A company's manufacturing accounting system applies overhead based on direct labor cost. The company's manufacturing costs for the current year were: direct labor, \$57,600; direct materials, \$76,800; and factory overhead, \$9,600. Calculate the company's overhead allocation rate.

$$\frac{\$9,600}{\$57,600} = 16.7\%$$

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P3*

134. The job cost sheet for Job number 93-471 includes the following information:

**DIRECT MATERIALS:**

- 7/12 Requisition R93-566: 20 units @ \$ 3.50 per unit
- 7/13 Requisition R93-576: 18 units @ \$ 5.00 per unit
- 7/13 Requisition R93-578: 4 units @ \$25.00 per unit
- 7/14 Requisition R93-591: 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 93-471?

**Total cost of job:**

**DIRECT MATERIALS:**

7/12 Requisition R93-566: 20 units @ \$ 3.50 per unit	=	\$ 70
7/13 Requisition R93-576: 18 units @ \$ 5.00 per unit	=	90
7/13 Requisition R93-578: 4 units @ \$25.00 per unit	=	100
7/14 Requisition R93-591: 40 units @ \$ 1.25 per unit	=	<u>50</u>
<b>Total direct materials cost</b>	=	<b><u>\$310</u></b>

**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	=	<u>55</u>
<b>Total direct labor cost</b>	=	<b><u>\$268</u></b>

**FACTORY OVERHEAD:**

150% of direct labor cost (150% x \$268)	=	<u>\$402</u>
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<b>TOTAL COST ASSIGNED TO THE JOB</b>	<b>=</b>	<b><u>\$980</u></b>
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AACSB: Analytic  
 AICPA BB: Industry  
 AICPA FN: Reporting  
 Difficulty: Medium  
 Learning Objective: P4

135. The following calendar year information about the Tahoma Corporation is available on December 31:

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

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 equipment	\$ 42,320
Factory utilities	35,650
Rent on factory building	41,400
Indirect labor	<u>51,750</u>
Total actual factory overhead costs	\$171,120
Factory overhead applied (142,600 × 125%)	<u>\$178,250</u>
Overapplied overhead	<u>\$ 7,130</u>

AACSB: Analytic  
 AICPA BB: Industry  
 AICPA FN: Reporting  
 Difficulty: Medium  
 Learning Objective: P4

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

Direct materials	\$250,000
Direct labor	410,000
Indirect materials	55,000
Indirect labor	125,000
Sales commissions	50,000
Factory depreciation	170,000
Property taxes, factory	15,000
Factory utilities	35,000
Advertising	62,500
Factory equipment rental	100,000

- (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 =  $\$410,000 \times 125\% = \$512,500$

(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	<u>100,000</u>
Total actual overhead	\$500,000
Overhead applied	<u>512,500</u>
Overapplied overhead	<u>\$ 12,500</u>

Factory overhead	12,500	
Cost of goods sold		12,500

AACSB: Analytic  
 AICPA BB: Industry  
 AICPA FN: Reporting  
 Difficulty: Medium  
 Learning Objective: P4

137. 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: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P4*

138. Samer Corp. uses a job order cost accounting 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 at end of the year:  
\$103,000, which includes \$38,000 direct labor costs.

Samer Corp.'s predetermined overhead allocation 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 cost	\$189,000	
	Applied overhead (60% x \$275,000)*	<u>165,000</u>	
	Underapplied overhead	<u>\$ 24,000</u>	
(b)	Cost of Goods Sold	24,000	
	Factory Overhead		24,000
	* $\$65,000 + \$172,000 + \$38,000 = \$275,000$		

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P4*



### Fill in the Blank Questions

139. A \_\_\_\_\_ accounting system records manufacturing activities using a periodic inventory system. A \_\_\_\_\_ accounting system records manufacturing activities using a perpetual inventory system.

**General; Cost**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Easy  
Learning Objective: C1*

140. \_\_\_\_\_, or customized production, produces products in response to customer orders.

**Job order manufacturing**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Easy  
Learning Objective: C2*

141. A \_\_\_\_\_ is a separate record maintained for each job.

**Job cost sheet**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Easy  
Learning Objective: C3*

142. The collection of job cost sheets for all jobs in process makes up the subsidiary ledger controlled by the \_\_\_\_\_ inventory.

**Goods in process**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: C3*

143. When a job is finished, its job cost sheet is completed and moved from the jobs in process file to the \_\_\_\_\_ file.

**Finished job**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: C3*

144. In a job order cost accounting system, raw materials requisitioned as direct materials are debited to \_\_\_\_\_; indirect materials are debited to \_\_\_\_\_.

**Goods in process inventory; factory overhead**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Medium  
Learning Objective: P1*

145. When factory payroll is assigned to specific jobs, \_\_\_\_\_ is debited.

**Goods in Process Inventory**

*AACSB: Analytic  
AICPA BB: Industry  
AICPA FN: Reporting  
Difficulty: Easy  
Learning Objective: P2*

146. When factory payroll for indirect labor is assigned, \_\_\_\_\_ is debited.  
**Factory Overhead**

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P2*

147. A \_\_\_\_\_ 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 allocation rate (or predetermined overhead rate)**

*AACSB: Analytic*  
*AICPA BB: Industry*  
*AICPA FN: Reporting*  
*Difficulty: Medium*  
*Learning Objective: P4*