**CHAPTER 12: INTRODUCTION TO PRODUCT COSTING**

**Multiple Choice**

b 1. The three major components of manufacturing cost are

 a. materials, work in process, and finished goods.

 b. materials, labor, and manufacturing overhead.

 c. materials, labor, and finished goods.

 d. materials, labor, and production costs.

a 2. A predetermined overhead rate CANNOT be used

 a. if a company does not budget its overhead costs.

 b. by a company that uses job-order costing.

 c. in a multiple-product company.

 d. by a highly automated company where labor is a minor part of product cost.

a 3. Assigning overhead to jobs using a predetermined overhead rate is called

 a. applying.

 b. budgeting.

 c. product costing.

 d. job-order costing.

d 4. Predetermined overhead rates are based on activity measured by

 a. number of jobs.

 b. units of sales.

 c. units of production.

 d. units of an input factor.

b 5. Absorption costing is required

 a. for financial accounting purposes only.

 b. for financial accounting and tax purposes.

 c. for financial and managerial accounting purposes.

 d. for managerial accounting purposes only.

a 6. Both actual and normal costing

 a. include material, labor, and overhead in product cost.

 b. require predetermined overhead rates.

 c. are likely to result in over- or underabsorption of overhead.

 d. will show a favorable volume variance if production is greater than budgeted.

b 7. An advantage of normal costing over actual costing is that

 a. the company can compute the exact cost of a unit of product.

 b. unit costs are not affected by monthly fluctuations in production activity.

 c. control over fixed costs is improved.

 d. the company need not forecast the level of productive activity for the year.

d 8. An unfavorable volume variance signifies that

 a. cost control was poor.

 b. sales were less than budgeted.

 c. production was less than sales.

 d. production was less than the level used to set the fixed overhead application rate.

b 9. The principal reason for using more than one rate to apply overhead is

 a. to keep the individual rates low.

 b. that overhead costs are driven by more than one activity.

 c. that such rates recognize the seasonal nature of some costs.

 d. to simplify recordkeeping.

a 10. Activity-based overhead rates are more useful than a single plant-wide rate if

 a. overhead costs are driven by several activities.

 b. direct labor cost varies significantly from department to department.

 c. all products require about the same amounts of all activities.

 d. manufacturing overhead costs are nearly all fixed.

c 11. Actual costing and normal costing differ in treating

 a. materials cost.

 b. direct labor cost.

 c. overhead cost.

 d. all of the above.

d 12. Which company is LEAST likely to use job-order costing?

 a. Furniture maker.

 b. Printer.

 c. Construction company.

 d. Flour maker.

d 13. A cost pool is

 a. all costs of a production department.

 b. the material and labor cost used on a particular job.

 c. overapplied or underapplied overhead costs.

 d. a group of overhead costs driven by the same activity.

c 14. Each group of overhead costs should be applied based on

 a. direct labor hours or cost.

 b. units produced.

 c. whatever activity drives those specific overhead costs.

 d. machine time.

d 15. A POOR reason to use activity-based overhead rates is that

 a. some departments are labor-intensive, some are machine-intensive.

 b. significant amounts of overhead are driven by different factors.

 c. rates calculated for some departments are much higher than for other departments.

 d. all jobs require about the same amounts of cost-driving activities.

a 16. XYZ had an $8,000 unfavorable volume variance, a $11,500 unfavorable variable overhead spending variance, and $1,500 total underapplied overhead. The fixed overhead budget variance was

 a. $18,000 favorable.

 b. $21,000 favorable.

 c. $17,500 unfavorable.

 d. $21,000 unfavorable.

d 17. Machine hours used to set the predetermined overhead rate were 25,000, actual hours were 24,000, and overhead applied was $60,000. Budgeted overhead for the year was

 a. $57,600.

 b. $59,000.

 c. $60,000.

 d. $62,500.

c 18. The three inventory accounts in a manufacturing company are

 a. Materials, Labor, and Manufacturing Overhead.

 b. Materials, Labor, and Finished Goods.

 c. Materials, Work in Process, and Finished Goods.

 d. Materials, Finished Goods, and Inventory Sold.

a 19. A predetermined overhead rate is calculated using

 a. budgeted overhead cost and budgeted activity.

 b. actual overhead cost and actual activity.

 c. budgeted overhead cost and budgeted direct labor hours.

 d. budgeted overhead cost and budgeted direct labor cost.

d 20. Under normal costing, income can be

 a. lower than under actual costing.

 b. higher than under actual costing.

 c. the same as under actual costing.

 d. any of the above.

a 21. The numerator in computing a predetermined overhead rate is

 a. budgeted manufacturing overhead cost.

 b. actual manufacturing overhead cost.

 c. budgeted activity.

 d. fixed manufacturing overhead.

c 22. The denominator in calculating a predetermined overhead rate is

 a. budgeted manufacturing overhead cost.

 b. actual manufacturing overhead cost.

 c. budgeted activity.

 d. actual activity.

c 23. In a factory operated largely by robots, the best basis for applying overhead is probably

 a. direct labor hours.

 b. direct labor cost.

 c. machine hours.

 d. raw material use.

a 24. Spooner applies overhead based on direct labor cost. It had budgeted manufacturing overhead of $50,000 and budgeted direct labor of $25,000. Actual overhead was $52,500, actual labor cost was $27,000. Overhead was

 a. overapplied by $1,500.

 b. overapplied by $2,000.

 c. overapplied by $2,500.

 d. underapplied by $2,000.

c 25. Hayward applies overhead at $5 per machine hour. During March it worked 10,000 hours and overapplied overhead by $3,000. Actual overhead was

 a. $53,000.

 b. $50,000.

 c. $47,000.

 d. none of the above.

b 26. Aurora applies overhead at $9 per direct labor hour of which $4 is variable overhead. Budgeted direct labor hours were 80,000. Budgeted fixed overhead was

 a. $320,000

 b. $400,000.

 c. $720,000.

 d. none of the above.

a 27. Which is a good reason to use separate overhead rates?

 a. Some departments are labor-intensive, some are machine-intensive.

 b. Labor rates vary considerably among departments.

 c. The resulting overhead rates are all about the same.

 d. All jobs require about the same percentage of time in all departments.

c 28. In contrast to a company that uses a single overhead rate, one that uses activity-based costing

 a. will have higher product costs than one using a single overhead rate.

 b. cannot compute budget variances.

 c. will incur additional costs for recordkeeping.

 d. must have a preponderance of fixed overhead costs.

a 29. Which of the following is a sign of poor cost control?

 a. A high unfavorable budget variance.

 b. A high unfavorable volume variance.

 c. High underapplied overhead.

 d. High overapplied overhead.

c 30. Hoyt Company applies overhead at $4 per direct labor hour. In March Hoyt incurred overhead of $96,000. Underapplied overhead was $4,000. How many direct labor hours did Hoyt work?

 a. 25,000

 b. 24,000

 c. 23,000

 d. 22,000

d 31. A company using activity-based overhead rates

 a. will usually have higher budget variances than one using a single rate.

 b. will usually have higher volume variances than one using a single rate.

 c. cannot compute fixed and variable components of overhead cost.

 d. should have better information for planning and control than one using a single rate.

a 32. Daly had a $9,000 favorable volume variance, a $7,500 unfavorable variable overhead spending variance, and $6,000 total overapplied overhead. The fixed overhead budget variance was

 a. $4,500 favorable.

 b. $8,000 favorable.

 c. $4,500 unfavorable.

 d. $8,000 unfavorable.

d 33. Acme had a $6,000 favorable fixed overhead budget variance, a $2,500 unfavorable variable overhead spending variance, and $1,000 total overapplied overhead. The volume variance was

 a. $4,500 overapplied.

 b. $4,500 underapplied.

 c. $2,500 overapplied.

 d. $2,500 underapplied.

b 34. Waldorf had a $10,000 unfavorable fixed overhead budget variance, a $6,000 unfavorable variable overhead spending variance, and a $2,000 favorable volume variance. The total overhead was

 a. $14,000 overapplied.

 b. $14,000 underapplied.

 c. $18,000 overapplied.

 d. $18,000 underapplied.

a 35. Bacon had a $18,000 unfavorable volume variance, a $5,000 unfavorable fixed overhead budget variance, and $12,000 total underapplied overhead. The variable overhead spending variance was

 a. $11,000 favorable.

 b. $1,000 favorable.

 c. $11,000 unfavorable.

 d. $23,000 unfavorable.

d 36. Gonzalez Company uses the equation $520,000 + $2 per direct labor hour to budget manufacturing overhead. Gonzalez has budgeted 150,000 direct labor hours for the year. Actual results were 150,000 direct labor hours and $817,500 total manufacturing overhead. The total overhead applied for the year is

 a. $300,000.

 b. $520,000.

 c. $817,500.

 d. $820,000.

a 37. Gonzalez Company uses the equation $520,000 + $2 per direct labor hour to budget manufacturing overhead. Gonzalez has budgeted 150,000 direct labor hours for the year. Actual results were 150,000 direct labor hours and $817,500 total manufacturing overhead. The total overhead variance for the year is

 a. $2,500 favorable.

 b. $12,500 favorable.

 c. $2,500 unfavorable.

 d. some other number.

c 38. Bonds Company uses the equation $300,000 + $1.75 per direct labor hour to budget manufacturing overhead. Bonds has budgeted 125,000 direct labor hours for the year. Actual results were 110,000 direct labor hours, $297,000 fixed overhead, and $194,500 variable overhead. The total overhead variance for the year is

 a. $2,000.

 b. $3,000.

 c. $47,000.

 d. $48,000.

a 39. Bonds Company uses the equation $300,000 + $1.75 per direct labor hour to budget manufacturing overhead. Bonds has budgeted 125,000 direct labor hours for the year. Actual results were 110,000 direct labor hours, $297,000 fixed overhead, and $194,500 variable overhead. The variable overhead spending variance for the year is

 a. $2,000.

 b. $3,000.

 c. $47,000.

 d. $48,000.

b 40. Bonds Company uses the equation $300,000 + $1.75 per direct labor hour to budget manufacturing overhead. Bonds has budgeted 125,000 direct labor hours for the year. Actual results were 110,000 direct labor hours, $297,000 fixed overhead, and $194,500 variable overhead. The fixed overhead budget variance for the year is

 a. $2,000.

 b. $3,000.

 c. $47,000.

 d. $48,000.

d 41. Bonds Company uses the equation $300,000 + $1.75 per direct labor hour to budget manufacturing overhead. Bonds has budgeted 125,000 direct labor hours for the year. Actual results were 110,000 direct labor hours, $297,000 fixed overhead, and $194,500 variable overhead. The fixed overhead volume variance for the year is

 a. $2,000.

 b. $3,000.

 c. $47,000.

 d. $48,000.

a 42. Machine hours used to set the predetermined overhead rate were 80,000, actual hours were 90,000, and overhead applied was $117,000. Budgeted overhead for the year was

 a. $104,000.

 b. $117,000.

 c. $131,625.

 d. some other number.

a 43. Cooke Company uses the equation $450,000 + $1.50 per direct labor hour to budget manufacturing overhead. Cooke has budgeted 150,000 direct labor hours for the year. Actual results were 156,000 direct labor hours and $697,500 total manufacturing overhead. The total overhead variance for the year is

 a. $4,500 favorable.

 b. $18,000 favorable.

 c. $4,500 unfavorable.

 d. $18,000 unfavorable.

b 44. Antaya Company uses the equation $375,000 + $1.20 per direct labor hour to budget manufacturing overhead. Antaya has budgeted 75,000 direct labor hours for the year. Actual results were 81,000 direct labor hours, $388,000 fixed overhead, and $98,600 variable overhead. The total overhead variance for the year is

 a. $2,700.

 b. $10,700.

 c. $22,000.

 d. $30,000.

a 45. Antaya Company uses the equation $375,000 + $1.20 per direct labor hour to budget manufacturing overhead. Antaya has budgeted 75,000 direct labor hours for the year. Actual results were 81,000 direct labor hours, $388,000 fixed overhead, and $98,600 variable overhead. The variable overhead spending variance for the year is

 a. $2,700.

 b. $10,700.

 c. $22,000.

 d. $30,000.

c 46. Antaya Company uses the equation $375,000 + $1.20 per direct labor hour to budget manufacturing overhead. Antaya has budgeted 75,000 direct labor hours for the year. Actual results were 81,000 direct labor hours, $388,000 fixed overhead, and $98,600 variable overhead. The fixed overhead budget variance for the year is

 a. $2,700.

 b. $10,700.

 c. $22,000.

 d. $30,000.

d 47. Antaya Company uses the equation $375,000 + $1.20 per direct labor hour to budget manufacturing overhead. Antaya has budgeted 75,000 direct labor hours for the year. Actual results were 81,000 direct labor hours, $388,000 fixed overhead, and $98,600 variable overhead. The fixed overhead volume variance for the year is

 a. $1,400.

 b. $13,000.

 c. $15,600.

 d. $30,000.

a 48. Machine hours used to set the predetermined overhead rate were 68,000, actual hours were 64,000, and budgeted overhead was $142,800. Overhead applied for the year was

 a. $134,400.

 b. $136,500.

 c. $142,800.

 d. $151,725.

a 49. Rhoda had a $2,000 favorable volume variance, a $7,000 unfavorable variable overhead spending variance, and $3,000 total underapplied overhead. The fixed overhead budget variance was

 a. $1,000 favorable.

 b. $8,000 favorable.

 c. $2,000 unfavorable.

 d. $8,000 unfavorable.

b 50. Katrina Inc. had a $30,000 favorable fixed overhead budget variance, a $44,000 unfavorable variable overhead spending variance, and $44,000 total underapplied overhead. The volume variance was

 a. $30,000 overapplied.

 b. $30,000 underapplied.

 c. $58,000 overapplied.

 d. $58,000 underapplied.

**ANSWERS**

**True-False**

T 1. A major advantage of normal costing over actual costing is that it smoothes out fluctuations in unit costs.

F 2. Normal costing incomes are less than actual costing incomes.

T 3. The term overapplied overhead is not used with actual costing.

T 4. A seasonal business using normal costing expects high overapplied and underapplied overhead during individual months of the year.

F 5. Underapplied overhead indicates inefficient operations.

F 6. Activity-based overhead rates give higher costs than does a single, plant-wide rate.

F 7. A cost pool consists of all of the costs of a particular department.

T 8. Absorption costing is required by GAAP for external financial reporting.

F 9. Variable costing and full costing are the same thing.

T 10. Overhead variances do not exist when actual costing is used.

**Problems**

1. Gagne Company uses the following equation to budget manufacturing overhead.

 Manufacturing overhead = $600,000 + $2 per direct labor hour

 Gagne has budgeted 300,000 direct labor hours for the year. Actual results were 320,000 direct labor hours and $1,249,000 total manufacturing overhead.

 a. Find the predetermined overhead rate.

 b. Find total overhead applied for the year.

 c. Compute (overapplied underapplied) overhead and circle the correct direction.

 d. Find the overhead budget variance and state whether favorable or unfavorable.

 e. Compute the volume variance and state whether favorable or unfavorable

SOLUTION:

a. $4 ($600,000/300,000 + $2 variable)

b. $1,280,000 ($4 x 320,000)

c. $31,000 overapplied ($1,280,000 - $1,249,000)

d. $9,000 unfavorable {$1,249,000 - [($2 x 320,000) + $600,000]}

e. $40,000 favorable ($1,240,000 budgeted - $1,280,000 applied)

2. Gomez Company uses job-order costing. Data are as follows:

 Jobs in Jobs in Ending

 Totals Jobs Sold Ending WIP Finished Goods

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 Materials $1,600,000 $1,450,000 $ 50,000 $100,000

 Direct labor $1,250,000 $ 900,000 $100,000 $250,000

 Gomez applies overhead to jobs at $0.80 per direct labor dollar. Total overhead cost incurred was $950,000. There were no beginning inventories.

 a. What is cost of goods sold using normal costing?

 b. Find the ending inventory of work in process using normal costing.

 c. Find the amount of overhead (overapplied underapplied) and circle the correct direction.

 d. Gomez treats overapplied or underapplied overhead as an adjustment to cost of goods sold. Compute total cost of goods sold.

SOLUTION:

a. $3,070,000 [$1,450,000 + $900,000 + ($0.80 x $900,000)]

b. $230,000 [$50,000 + $100,000 + ($0.80 x $100,000)]

c. $50,000 overapplied [($1,250,000 x $0.80) - $950,000]

d. $3,020,000 ($3,070,000 normal minus $50,000 overapplied OH)

3. Antigo Company uses job-order costing. Data related to March are as follows:

 Job A Job B Job C

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 Material cost $3,900 $4,700 $5,200

 Direct labor cost $4,000 $6,000 $4,000

 Machine hours 300 500 300

 Antigo applies overhead to jobs at $8 per machine hour. Total overhead cost incurred in March was $8,400. There were no beginning inventories. Job A was incomplete at the end of March, Job B was sold for $28,000, and Job C was in finished goods inventory. Selling and administrative expenses were $2,100.

 a. Compute the ending inventory of work in process.

 b. Compute the ending inventory of finished goods.

 c. Overhead was (overapplied underapplied) by? Circle the correct direction.

 d. Compute the normal cost of goods sold.

 e. Prepare an income statement showing underapplied or overapplied overhead as an adjustment to normal cost of sales.

SOLUTION:

a. $10,300 (Cost of job A, below)

b. $11,600 (Cost of job C, below)

 Job A Job B Job C

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 Material cost $ 3,900 $ 4,700 $ 5,200

 Direct labor cost 4,000 6,000 4,000

 Applied overhead at $8 2,400 4,000 2,400

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 Total costs $10,300 $14,700 $11,600

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c. $400 overapplied

 Actual overhead $8,400

 Applied overhead ($2,400 + $4,000 + $2,400) 8,600

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 Overapplied overhead $ 400

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d. $14,700 (Cost of job B, see above)

e.

 Sales $28,000

 Normal cost of sales $14,700

 Less overapplied overhead 400 14,300

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 Gross margin $13,700

 Selling and administrative expenses 2,100

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 Income $11,600

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4. Bruno Company uses the following equation to budget manufacturing overhead.

 Manufacturing overhead = $200,000 + $3 per direct labor hour

 Bruno has budgeted 100,000 direct labor hours for the year. Actual results were 90,000 direct labor hours and $457,000 total manufacturing overhead.

 a. Find the predetermined overhead rate.

 b. Find total overhead applied for the year.

 c. Compute (overapplied underapplied) overhead and circle the correct direction.

 d. Find the overhead budget variance and state whether favorable or unfavorable.

 e. Compute the volume variance and state whether favorable or unfavorable

SOLUTION:

a. $5 ($200,000/100,000 + $3 variable)

b. $450,000 ($5 x 90,000)

c. $7,000 underapplied ($450,000 - $457,000)

d. $13,000 favorable {$457,000 - [($3 x 90,000) + $200,000]}

e. $20,000 unfavorable ($470,000 budgeted - $450,000 applied)

5. Hurley Company uses job-order costing. Data are as follows:

 Jobs in Jobs in Ending

 Totals Jobs Sold Ending WIP Finished Goods

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 Materials $2,050,000 $1,500,000 $200,000 $350,000

 Direct labor $2,250,000 $1,650,000 $160,000 $440,000

Hurley applies overhead to jobs at $0.60 per direct labor dollar. Total overhead cost incurred was $1,460,000. There were no beginning inventories.

 a. What is cost of goods sold using normal costing?

 b. Find the ending inventory of work in process using normal costing.

 c. Find the amount of overhead (overapplied underapplied) and circle the correct direction.

 d. Hurley treats overapplied or underapplied overhead as an adjustment to cost of goods sold. Compute total cost of goods sold.

SOLUTION:

a. $4,140,000 [$1,500,000 + $1,650,000 + ($0.60 x $1,650,000)]

b. $456,000 [$200,000 + $160,000 + ($0.60 x $160,000)]

c. $110,000 underapplied [($2,250,000 x $0.60) - $1,460,000]

d. $4,250,000 ($4,140,000 normal plus $110,000 underapplied OH)

6. Acme Company uses job-order costing. Data related to August are as follows:

 Job A Job B Job C

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 Material cost $3,900 $4,700 $5,400

 Direct labor cost $4,000 $7,000 $4,000

 Machine hours 400 700 500

 Acme applies overhead to jobs at $10.00 per machine hour. Total overhead cost incurred in August was $16,700. There were no beginning inventories. Job A was incomplete at the end of August, Job B was sold for $34,000, and Job C was in finished goods inventory. Selling and administrative expenses were $3,500.

 a. Compute the ending inventory of work in process.

 b. Compute the ending inventory of finished goods.

 c. Overhead was (overapplied underapplied) by? Circle the correct direction.

 d. Compute the normal cost of goods sold.

 e. Prepare an income statement showing underapplied or overapplied overhead as an adjustment to normal cost of sales.

SOLUTION:

a. $11,900 (Cost of job A, below)

b. $14,400 (Cost of job C, below)

 Job A Job B Job C

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 Material cost $ 3,900 $ 4,700 $ 5,400

 Direct labor cost 4,000 7,000 4,000

 Applied overhead at $10 4,000 7,000 4,000

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 Total costs $11,900 $18,700 $14,400

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c. $700 underapplied

 Actual overhead $16,700

 Applied overhead ($4,000 + $7,000 + $4,000) 16,000

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 Underapplied overhead $ 700

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d. $18,700 (Cost of job B, see above)

e.

 Sales $34,000

 Normal cost of sales $18,700

 Plus underapplied overhead 700 19,400

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 Gross margin $14,600

 Selling and administrative expenses 3,500

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 Income $11,100

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7. Darlington Company uses job-order costing. Data are as follows:

 Jobs in Jobs in Ending

 Totals Jobs Sold Ending WIP Finished Goods

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 Materials $3,200,000 $2,700,000 $200,000 $300,000

 Direct labor $1,500,000 $1,000,000 $100,000 $400,000

 Darlington uses actual costing to assign overhead based on direct labor. Total overhead cost incurred was $2,700,000. There were no beginning inventories.

 a. What is cost of goods sold?

 b. Find the ending inventory of work in process.

 c. Find the ending finished goods inventory value.

SOLUTION:

a. $5,500,000 [$2,700,000 + $1,000,000 + ($1,000,000/$1,500,000 x

 $2,700,000)]

b. $480,000 [$200,000 + $100,000 + ($100,000/$1,500,000 x $2,700,000)]

c. $1,420,000 [$300,000 + $400,000 + ($400,000/$1,500,000 x $2,700,000)]

8. Beloit Company uses job-order costing. Data related to September are as follows:

 Job A Job B Job C

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 Material cost $4,400 $3,400 $4,200

 Direct labor cost $3,000 $6,000 $2,000

 Beloit uses actual costing to apply overhead to jobs based on direct labor cost. Total overhead cost incurred in September was $14,300. There were no beginning inventories. Job A was incomplete at the end of September, Job B was sold for $22,000, and Job C was in finished goods inventory. Selling and administrative expenses were $3,800.

 a. Compute the ending inventory of work in process.

 b. Compute the ending inventory of finished goods.

 c. Overhead was (overapplied underapplied) by? Circle the correct direction.

 d. Compute cost of goods sold.

 e. Prepare an income statement showing underapplied or overapplied overhead as an adjustment to cost of sales.

SOLUTION:

a. $11,300 (Cost of job A, below)

b. $8,800 (Cost of job C, below)

 Job A Job B Job C

 ------ ------- ------

 Material cost $4,400 $ 3,400 $4,200

 Direct labor cost 3,000 6,000 2,000

 Applied overhead 3,900 7,800 2,600

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 Total costs $11,300 $17,200 $8,800

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c. neither; actual overhead is applied

 Actual overhead $14,300

 Applied overhead ($3,900 + $7,800 + $2,600) 14,300

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 Underapplied overhead $ 0

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d. $17,200 (Cost of job B, see above)

e.

 Sales $22,000

 Cost of sales 17,200

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 Gross margin $ 4,800

 Selling and administrative expenses 3,800

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 Income $ 1,000

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9. Ashland Company uses job-order costing. Data are as follows:

 Jobs in Jobs in Ending

 Totals Jobs Sold Ending WIP Finished Goods

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 Materials $1,450,000 $800,000 $300,000 $350,000

 Direct labor $1,650,000 $850,000 $260,000 $540,000

 Ashland applies overhead to jobs at $0.70 per direct labor dollar. Total overhead cost incurred was $1,070,000. There were no beginning inventories.

 a. What is cost of goods sold using normal costing?

 b. Find the ending inventory of work in process using normal costing.

 c. Find the amount of overhead (overapplied underapplied) and circle the correct direction.

 d. Ashland treats overapplied or underapplied overhead as an adjustment to cost of goods sold. Compute total cost of goods sold.

SOLUTION:

a. $2,245,000 [$800,000 + $850,000 + ($0.70 x $850,000)]

b. $742,000 [$300,000 + $260,000 + ($0.70 x $260,000)]

c. $85,000 overapplied [($1,650,000 x $0.70) - $1,070,000]

d. $2,160,000 ($2,245,000 normal less $85,000 overapplied OH)

10. Hayes Company uses job-order costing. Data related to May are as follows:

 Job A Job B Job C

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 Material cost $3,900 $5,700 $4,400

 Direct labor cost $2,000 $4,000 $3,000

 Machine hours 1,000 700 1,400

 Hayes applies overhead to jobs at $8 per machine hour. Total overhead cost incurred in May was $24,650. There were no beginning inventories. Job A was incomplete at the end of May, Job B was sold for $30,000, and Job C was in finished goods inventory. Selling and administrative expenses were $3,900.

 a. Compute the ending inventory of work in process.

 b. Compute the ending inventory of finished goods.

 c. Overhead was (overapplied underapplied) by? Circle the correct direction.

 d. Compute the normal cost of goods sold.

 e. Prepare an income statement showing underapplied or overapplied overhead as an adjustment to normal cost of sales.

SOLUTION:

a. $13,900 (Cost of job A, below)

b. $18,600 (Cost of job C, below)

 Job A Job B Job C

 ------ ------- ------

 Material cost $3,900 $ 5,700 $4,400

 Direct labor cost 2,000 4,000 3,000

 Applied overhead at $8 8,000 5,600 11,200

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 Total costs $13,900 $15,300 $18,600

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c. $150 overapplied

 Actual overhead $24,650

 Applied overhead ($8,000 + $5,600 + $11,200) 24,800

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 Overapplied overhead $ 150

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d. $15,300 (Cost of job B, see above)

e.

 Sales $30,000

 Normal cost of sales $15,300

 Less overapplied overhead 150 15,150

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 Gross margin $14,850

 Selling and administrative expenses 3,900

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 Income $10,950

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