Ver. 4 問題集

for the USCPA Exam

USCPA

Managerial Accounting(MA)& Financial Management (FIN)

FAR
Financial Accounting & Reporting

BEC
Business Environment & Concepts

REG
Regulation

AUD
Auditing & Attestation

TAC

U.S. CPA

Managerial Accounting & Financial Management

問題集

Contents

Managerial Accounting and Financial Management

1. Product Costing（製品原価計算）

【ＭＥＭＯ】

基 本 問 題 1

(1) Fab Co. manufactures textiles. Among Fab's Year 1 manufacturing costs were the following salaries and wages:

Loom operators	$120,000
Factory foremen	45,000
Machine mechanics	30,000

What was the amount of Fab's Year 1 direct labor?

a. $195,000 b. $165,000 c. $150,000 d. $120,000

(2) If a product required a great deal of electricity to produce, and crude oil prices increased, which of the following costs most likely increased?

a. Direct materials.
b. Direct labor.
c. Prime costs.
d. Conversion costs.

(3) Inventoriable costs:

a. Include only the prime costs of manufacturing a product.
b. Include only the conversion costs of manufacturing a product.
c. Are regarded as assets before the products are sold.
d. Exclude fixed factory overhead.

(4) In a traditional job order cost system, the issue of indirect materials to a production department increases:

a. Stores control.
b. Work in process control.
c. Factory overhead control.
d. Factory overhead applied.

【解答と解説】

(1) **(d)** Product の生産それ自体に携わっている工員に支払われた賃金だけが direct labor costs となり、それ以外の工場従業員に支払われた賃金は indirect labor costs となります。Textiles（織物）を生産する工場では、 次のようになります。

Loom operators：織機を操作する人 → Direct labor $120,000
Factory foreman：工場を監督する人 → Indirect labor $45,000
Machine mechanics：機械整備士 → Indirect labor $30,000

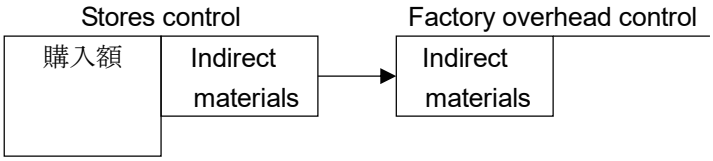
よって、direct labor は**$120,000**です。

(2) **(d)** Crude oil（原油）価格の上昇は発電コストの上昇につながり、電力コストは indirect expenses として扱われるので、conversion costs の増加につながります。

※ (1)と(2)は product costing の３つのステップのうちの〔ステップ1：cost accumulation〕に関する問題です。試験対策上の重要性は低いので、無視しても差し支えありません。

(3) **(c)** Inventoriable costs are assets until sold, when they become "cost of goods sold." すべての manufacturing costs が inventory に集計されるので、a.b.d.は誤りです。

(4) **(c)** 下図に示すように、the issue of indirect materials to a production department（indirect materials の製造部門への流出(＝出庫・消費)）は、stores control a/c を減少させ、factory overhead control a/c を増加させます。



（注）複数種類の materials を使用している場合、material a/c を material control（stores control）a/c とすることがあります。同様に複数種類の product を生産している場合、Work in process a/c を Work in process control a/c とすることがあります。

[(1)～(4)は Becker にある問題です。]

基 本 問 題 2

(1) The following is selected information from the records of Ray, Inc.:

Purchases of raw materials	$ 6,000
Raw materials, beginning	500
Raw materials, ending	800
Work-in-process, beginning	0
Work-in-process, ending	0
Cost of goods sold	12,000
Finished goods, beginning	1,200
Finished goods, ending	1,400

What is the total amount of conversion costs?

a. $5,500
b. $5,900
c. $6,100
d. $6,500

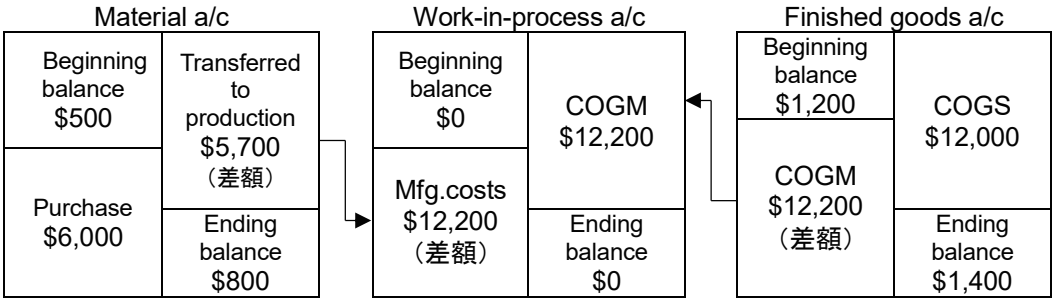
(2) What is the cost of ending inventory given the following factors?

Beginning inventory	$5,000
Total production costs	60,000
Cost of goods sold	55,000
Direct labor	40,000

a. $5,000
b. $10,000
c. $45,000
d. $50,000

【解答と解説】

(1) **(d)** 次の各 a/c に示すように、当月の direct material は$5,700、 manufactuing costs は$12,200です。

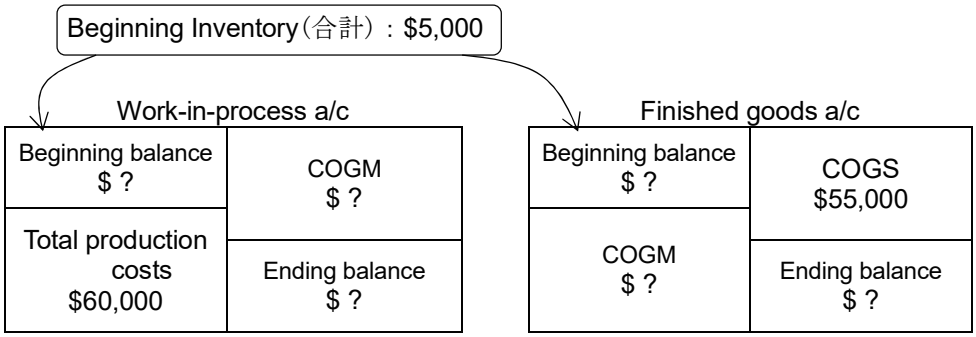


注）COGM：Cost of goods manufactured、COGS：Cost of goods sold

よって、当月の conversion costs は、以下のように$6,500となります。

Direct material：		$5,700
Direct Labor Factory overhead	Conversion costs：	**$6,500** ← 差額
Manufacturing costs：		$12,200

(2) **(b)** 問題文の資料をまとめると、以下のとおりです。



注）「Total production costs $60,000：direct material $?＋direct labor $40,000＋applied overhead $?」なので、direct labor$40,000は、total production costs に含まれています。

よって、当月の ending inventoy は、以下のように$10,000となります。

Beginning inventory $5,000＋Production costs $60,000
－Cost of good sold $55,000＝Ending inventory $**10,000**

[(1)と(2)は Becker にある問題です。]

基 本 問 題 3

(1) Costs are allocated to cost objectives in many ways and for many reasons. Which one of the following is a purpose of cost allocation?

a. Evaluating revenue center performance.
b. Measuring income and assets for external reporting.
c. Aiding in variable costing for internal reporting.
d. Implementing activity-based costing.

(2) Which one of the following alternatives correctly classifies the business application to the appropriate costing system?

	Job Costing System	*Process Costing System*
a.	Wallpaper manufacturer	Oil refinery
b.	Aircraft assembly	Public accounting firm
c.	Paint manufacturer	Retail banking
d.	Print shop manufacturer	Beverage drink

(3) The accountant for Champion Brake Inc. applies overhead based on machine hours. The budgeted overhead and machine hours for the year are $260,000 and 16,000, respectively. The actual overhead and machine hours incurred were $275,000 and 20,000. The cost of goods sold and inventory data compiled for the year is as follows:

Direct Materials	$ 50,000
COGS	450,000
WIP (units)	100,000
Finished Goods (units)	150,000

What is the amount of over/underapplied overhead for the year?

a. $15,000
b. $50,000
c. $65,000
d. $67,000

【解答と解説】

(1) **(b)** Cost objectives に対して cost allocation を行う目的を問う問題で、USCPA 試験では難しい部類の問題です。

「b.外部報告のために利益と資産を測定すること」は cost allocation の重要な目的です。Manufacturing costs を各 product に対して集計しようとすると、複数の product に対して共通して発生する costs をいかに prodict に割り当てるかが問題となります。

Revenue center は収益に対して責任を負う管理者なので、「a. revenue center の業績を評価すること」は、cost allocation を行う目的ではありません（revenue center の業績評価は**第８章**で紹介します)。

Variable costing では fixed manufacturing costs を product に集計しないので、cost allocation の必要性は少なくなります。よって、「c.内部報告のために variable costing を支援すること」よりも b.の方が適切な解答と言えます（variable costing は**第４章**で紹介します)。

Activity-based costing では、因果関係に基づいて costs を各 product に跡付けようとするので、b.の方が適切な解答といえます（Activity-based costing は**第２章**で紹介します)。

(2) **(d)** **Job costing** is used in the production of tailor-made or unique goods, including:

Construction of buildings or ships, Aircraft assembly, Printing, Special-purpose machinery (microcomputer manufacturer), Public accounting firm, Management consulting firm, Repair shops, Industrial research projects

Process costing is used where the product is composed of mass produced homogeneous units such as:

Gasoline and oil, Chemicals, Steel, Textiles (wallpaper), Plastics, Paints, Flour, Meatpacking, Canneries, Rubber, Lumber, Food processing (beverage drink manufacturer), Glass, Mining, Cement, Check clearing in banks, Mail sorting in post offices, Food preparation in fast-food outlets, Premium handling in insurance companies

(3) **(b)** Predetermined rate は$16.25（＝budgeted overhead$260,000÷budgeted machine hour16,000時間）で、実際の machine hour は20,000時間なので、applied overhead は$325,000（＝$16.25×20,000時間）です。他方、実際の overhead は$275,000なので、**$50,000**の overapplied が生じていることになります。

［(1)～(3)は Becker にある問題です。］

基 本 問 題 4

Madtack Company's beginning and ending inventories for the month of November 1995 are:

	November 1	*November 30*
Direct materials	$ 67,000	$ 62,000
Work-in-process	145,000	171,000
Finished goods	85,000	78,000

Production data for the month of November follows.

Direct labor	$200,000
Actual factory overhead	132,000
Direct materials purchased	163,000
Transportation in	4,000
Purchase returns and allowances	2,000

Madtack uses one factory overhead control account and charges factory overhead to production at 70 percent of direct labor cost. The company does not formally recognize over/underapplied overhead until year-end.

(1) Madtack Company's prime cost for November is:
a. $370,000 b. $363,000 c. $170,000 d. $368,000

(2) Madtack Company's total manufacturing cost for November is:
a. $502,000 b. $503,000 c. $495,000 d. $510,000

(3) Madtack Company's cost of goods transferred to finished goods inventory for November is:
a. $469,000 b. $495,000 c. $484,000 d. $476,000

(4) Madtack Company's cost of goods sold for November is:
a. $484,000 b. $491,000 c. $502,000 d. $476,000

(5) Madtack Company's net charge to factory overhead control for the month of November is:
a. $8,000 debit, overapplied.
b. $8,000 debit, underapplied.
c. $8,000 credit, overapplied.
d. $8,000 credit, underapplied.

【解答と解説】

(1) **(a)** 以下に示すように、11月の Direct materials は$170,000です。

Material a/c

Beginning balance $67,000	Direct materials $170,000 （差額）
Purchase $163,000 ＋$4,000 △$2,000	Ending balance $62,000

よって、prime costs は**$370,000**（＝Direct materials$170,000＋Direct labor$200,000）となります。

(2) **(d)** 以下に示すように、11月の Total manufacturing costs は$510,000です。

Direct material：	$ 170,000
Direct labor：	200,000
Factory overhead：Direct labor $200,000×70%＝	140,000
TOTAL	**$ 510,000**

(3) **(c)** 以下に示すように、11月の cost of goods transferred to finished goods inventory（＝COGM）は$484,000です。

Work-in-process a/c

Beginning balance $145,000	COGM **$484,000** （差額）
Mfg. costs $510,000	Ending balance $171,000

(4) **(b)** 以下に示すように、11月の Cost of goods sold は$491,000です。

Finished goods a/c

Beginning balance $85,000	COGS **$491,000** （差額）
COGM $484,000	Ending balance $78,000

(5) **(c)** 以下に示すように、11月の net charge to factory overhead control（overhead の配賦差異）は$8,000 overapplied です。

Overhead control a/c

Beginning balance $?	WIP $140,000 → $8,000 overapplied
Actual $132,000	Ending balance $?

［(1)～(5)は Becker にある問題です。］

基 本 問 題 5

(1) Under Pick Co.'s job order costing system manufacturing overhead is applied to work in process using a predetermined annual overhead rate. During January Year 1, Pick's transactions included the following:

Direct materials issued to production	$90,000
Indirect materials issued to production	8,000
Manufacturing overhead incurred	125,000
Manufacturing overhead applied	113,000
Direct labor costs	107,000

Pick had neither beginning nor ending work-in-process inventory. What was the cost of jobs completed in January Year 1?

a. $302,000 b. $310,000 c. $322,000 d. $330,000

(2) On January 1 Maples had two jobs in process: #506 with assigned costs of $10,500 and #507 with assigned costs of $14,250. During January three new jobs, #508 through #510, were started and three jobs, #506, #507, and #508, were completed. Materials and labor costs added during January were as follows:

Job number	*Materials*	*Labor*
506	$ 0	$ 2,000
507	0	1,500
508	4,000	3,600
509	3,800	2,000
510	2,600	3,100

Manufacturing overhead is assigned at the rate of 200 percent of labor. What is the January cost of goods manufactured and transferred from work-in-process?

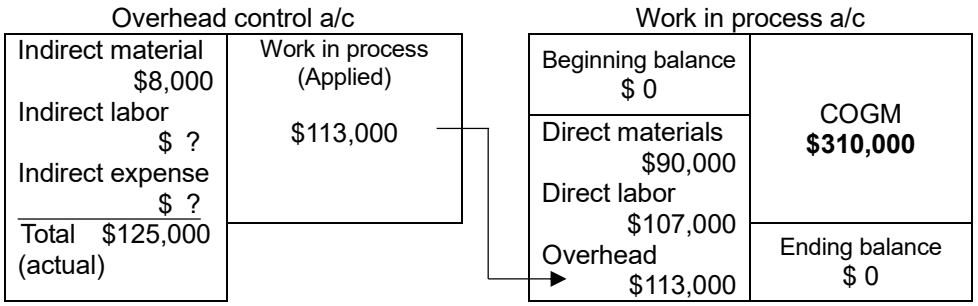
a. $25,300 b. $35,850 c. $42,950 d. $50,050

(3) Which of the following would cause overhead to be overapplied?

a. Actual overhead is greater than overhead applied.
b. Actual overhead is less than overhead applied.
c. Actual overhead was equal to the budgeted amount but fewer items were manufactured.
d. The number of units produced was the budgeted amount but a larger amount of overhead was actually incurred.

【解答と解説】

(1) **(b)** 以下に示すように、the cost of jobs completed（＝COGM）は$310,000です。



(2) **(d)** １月に完成した３つの job order（＃506、＃507、＃508）の costs の合計が costs of goods manufactured となります。

	＃506	＃507	＃508
Beginning WIP	$10,500	$14,250	—
Direct Materials	—	—	$ 4,000
Direct labor	$2,000	$1,500	$3,600
Overhead	$4,000	$3,000	$7,200
Total	16,500	18,750	14,800

← Direct labor の200%

$50,050

(3) **(b)** Overapplied overhead が発生するのは「Actual ＜ Applied」となったときなので、b.は正しく、a.は誤りです。
また、c.と d.はいずれも underapplied overhead が生じる原因となります（以下の説明には、**第３章**で学習する内容を含んでいます)。
c.（actual overhead は予算と同額であったが、(計画) より少ない品目しか生産しなかった）の場合、unfavorable な production volume variance が発生するので誤りです。また、d.（生産数量は予算と同量であったが、より多額の overhead が実際には発生した）の場合、unfavorable な spending variance が発生するので誤りです。

［(1)～(3) は Becker にある問題です。］

基 本 問 題 6

Kimbeth Manufacturing uses a process cost system to manufacture Dust Density Sensors for the mining industry. The following information pertains to operations for the month of May:

	Units
Beginning work-in-process inventory, May 1	16,000
Started in production during May	100,000
Completed production during May	92,000
Ending work-in-process inventory, May 31	24,000

The beginning inventory was 60 percent complete for materials and 20 percent complete for conversion costs. The ending inventory was 90 percent complete for materials and 40 percent complete for conversion costs.

Costs pertaining to the month of May are as follows:

- Beginning inventory costs are: materials, $54,560; direct labor $20,320; and factory overhead, $15,240.
- Costs incurred during May are: materials used, $468,000; direct labor, $182,880; and factory overhead, $391,160.

(1) Using the FIFO method, the equivalent unit cost of materials for May is:
a. $4.50 b. $4.60 c. $4.80 d. $5.46

(2) Using the FIFO method, the equivalent unit conversion cost for May is:
a. $5.65 b. $5.83 c. $6.00 d. $6.20

(3) Using the FIFO method, the total cost of units in the ending work-in-process inventory at May 31 is:
a. $153,168 b. $154,800 c. $155,328 d. $156,960

(4) Using the weighted-average method, the equivalent unit cost of materials for May is:
a. $4.50 b. $4.60 c. $5.03 d. $5.46

(5) Using the weighted-average method, the equivalent unit conversion cost for May is:
a. $5.65 b. $5.83 c. $6.00 d. $6.41

(6) Using the weighted-average method, the total cost of the units in the ending work-in-process inventory at May 31 is:
a. $153,960 b. $154,800 c. $155,328 d. $156,960

【解答と解説】

(1) **(a)** 以下に示すように、the equivalent unit cost of materials は@$4.50です。

Direct Materials

Beg. WIP 16,000nits×60% $54,560	Finished goods 92,000units
Equivalent unit 104,000units $468,000÷104,000units **＝@$4.50**	End. WIP 24,000units×90% @4.50×21,600units＝$97,200

(2) **(b)** 以下に示すように、the equivalent unit conversion cost は@$5.83です。

Conversion cost

Beg. WIP 16,000nits×20% $35,560★	Finished goods 92,000units
Equivalent unit 98,400units $574,040☆÷98,400units **≒@$5.83**	End. WIP 24,000units×40% @5.83×9,600units＝$55,968

★ Direct labor$20,320＋Factory overhead$15,240

☆ Direct labor$182,880＋Factory overhead$391,160

(3) **(a)** (1)と(2)より、the total cost of units in the ending work-in-process は**$153,168**（＝Direct materials$97,200＋Conversion cost$55,968）です。

(4) **(b)** 以下に示すように、the equivalent unit cost of materials は@$4.60です。

Direct Materials

Equivalent unit 113,600units $522,560★÷113,600units **＝@$4.60**	Finished goods 92,000units
	End. WIP 24,000units×90% @4.60×21,600units＝$99,360

★ Beginning$54,560＋Incurred during May$468,000

(5) **(c)** 以下に示すように、the equivalent unit conversion cost は@$6.00です。

Conversion cost

Equivalent unit 101,600units $609,600★÷101,600units **＝@$6.00**	Finished goods 92,000units
	End. WIP 24,000units×40% @6.00×9,600units＝$57,600

★ Beginning$35,560＋Incurred during May$574,040

(6) **(d)** (4)と(5)より、the total cost of units in the ending work-in-process は**$156,960**（＝Direct materials$99,360＋Conversion cost$57,600）です。

[(1)～(6)は Becker にある問題です。]

基 本 問 題 7

(1) In its April Year 1 production, Hern Corp., which does not use a standard cost system, incurred total production costs of $900,000, of which Hern attributed $60,000 to normal spoilage and $30,000 to abnormal spoilage. Hern should account for this spoilage as:

a. Period cost of $90,000.
b. Inventoriable cost of $90,000.
c. Period cost of $60,000 and inventoriable cost of $30,000.
d. Inventoriable cost of $60,000 and period cost of $30,000.

(2) During May, Mercer Company completed 50,000 units costing $600,000, exclusive of spoilage allocation. Of these completed units, 25,000 were sold during the month. An additional 10,000 units, costing $80,000, were 50 percent complete at May 31. All units are inspected between the completion of manufacturing and transfer to finished goods inventory. Normal spoilage for the month was $20,000, and abnormal spoilage of $50,000 was also incurred during the month.
The portion of total spoilage that should be charged against revenue in May is:

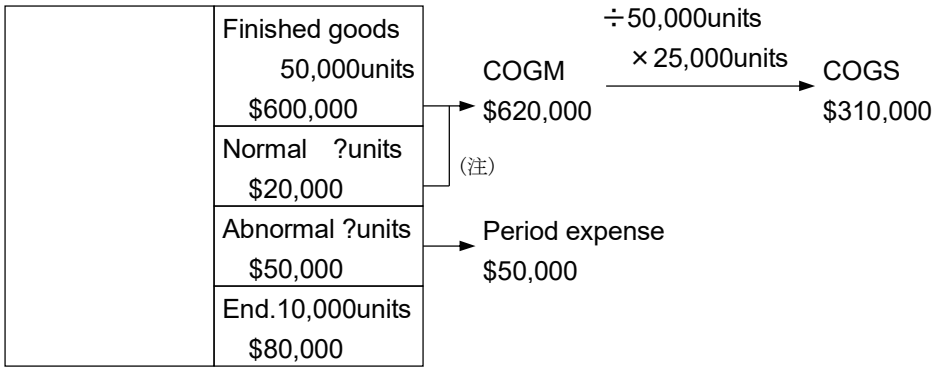
a. $50,000
b. $20,000
c. $70,000
d. $60,000

【解答と解説】

(1) **(d)** Normal spoilage is considered a necessary cost of production and is a product (inventoriable) cost.　Abnormal spoilage is considered unnecessary and is a period cost.

Normal spoilage に集計された$60,000は product (inventoriable) cost として処理し、abnormal spoilage に集計された$30,000は period expense として処理します（なお、問題文に出てくる standard cost system は、**第３章**で紹介します)。

(2) **(d)** Costs を配分した結果は、次のとおりです。



以上より、the portion of total spoilage that should be charged against revenue（income statement の expense となる spoilage の金額）は、normal spoilage $20,000の半分と abnormal spoilage$50,000の全額で、あわせて$60,000となります。

（注）問題文では、「All units are inspected between the completion of manufacturing and transfer to finished goods inventory.製造が完了して完成品(倉庫)に移す間に全量が検査される」とあるので、spoilage はすべて完成品の生産から生じていることになります。よって、normal spoilage costs の全額を完成品に負担させます。

[(1)と(2)は Becker にある問題です。]

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