

Answer Key

Question (1)

1. D (2 marks)
2. E (2 marks)
3. D (2 marks)
4. A (2 marks)
5. A (1 mark)
6. A (1 mark)
7. B (2 marks)
8. C (2 marks)
9. B (2 marks)
10. E (1 mark)
11. B (1 mark)
12. A (1 mark)
13. C (1 mark)
14. E (2 marks)
15. D (2 marks)
16. E (2 marks)
17. E (1 mark)
18. B (1 mark)
19. D (1 mark)
20. D (1 mark)

Question 2 (20 Marks)

Summary of Variances

		\$(000)	
(Market Size Variance)	Industry volume variance = $344 - 260$	= \$ 84 F	
	Market share variance = $220 - 344$	= <u>\$124 U</u>	
(Sales Quantity)	Profit volume variance (net) = $220 - 260$	= 40 U	
	Sales mix variance = $180 - 220$	= <u>40 U</u>	
(Sales Volume)	Profit volume variance (gross)	= \$ 80 U	
	Sales price variance = $2,000 - 2,000$	= <u>0</u>	
	Total marketing variances		= \$ 80 U
	Variable cost variance = $1,240 - 1,500$	= 260 U	
	Discretionary fixed cost variance = $180 - 60$	= 120 F	
	Committed fixed cost variance = $400 - 560$	= <u>160 U</u>	
	Total cost variances		= <u>\$300 U</u>
	Total		= <u>380 U</u>
	Actual income - master budget income = $-120 - 260$		= 380 U

An alternative way:

	1. Total budgeted CM	\$840
	Total standard CM for Actual Quantities	
	$2,000 \times .38 =$	<u>760</u>
(Sales Volume)	Profit volume variance (gross)	<u>80 U</u>

2. Budgeted CM ratio

$$840/2,100 = .40$$

(Sales Quantity) Profit volume variance (net) = 40 U
 $(2,000 - 2,100) \times 0.40$

Sales mix variance = 40 U
 $2,000(.40 - 0.38)$

(Sales Volume) Profit volume variance (Gross) 80 U

(Market Size) 3. Industry volume variance = 84 F
 $0.10 \times \$840$

Market share variance = 124 U
 $(2,000 - [1.1 \times 2,100]) \times 0.40$

4. Sales Price Variance 0
Since sales were exactly as budgeted.

5. Variable cost flexible budget variance

Actual			1,500	
Budget	1,260			
Adj for sales vol				
$100/2,100 \times 1,260$	(60)			
Adj for sales mix				
$(.4 - .38)2,000$	<u>40</u>	<u>1,240</u>	<u>\$260 U</u>	

6. Fixed cost flexible budget variance

	Budget	Actual	Variance
Discretionary	180	60	120 F
Committed	<u>400</u>	<u>560</u>	<u>160 U</u>
	<u>580</u>	<u>620</u>	<u>40 U</u>

7. Budgeted net income \$260

(Market Size) Industry volume variance 84 F

Market share variance 124 U

(Sales Quantity) Profit volume variance (net) 40 U

Sales mix variance 40 U

(Sales Volume) Profit volume variance (gross) 80 U

Variable cost flexible budget variance 260 U

Fixed cost flexible budget variance 40 U

Actual net loss \$(120)

Question 3

1. Purchased materials on account		
Raw Materials	180,000	
Accounts Payable		180,000
2. No entry Required.		
3. Materials requisitioned for production:		
Work in Process	85,000	
Manufacturing Overhead	5,000	
Raw Materials		90,000
4. Factory payroll for January:		
Work in Process	117,000	
Manufacturing Overhead	23,000	
Wages Payable		140,000
5. Expenses recorded with adjusting entries:		
Manufacturing Overhead	52,000	
Accumulated Depreciation		45,000
Prepaid Insurance		7,000
6. Other manufacturing costs not yet paid:		
Manufacturing Overhead	50,000	
Accounts Payable		50,000
Entry to apply manufacturing overhead in January:		
Work in Process	135,000*	
Manufacturing Overhead		135,000
*(\$15 x 9,000 hours)		
8. Job No. 125 and 126 were completed and transferred to finished goods. (See the job-order cost sheets below for the amounts.)		
Finished Goods	295,000*	
Work in Process		295,000
9. Job No. 125 was sold during the month. (See the job-order cost sheets below for the amount.)		
Cost of Goods Sold	184,000	
Finished Goods		184,000
Accounts Receivable	312,800*	
Sales Revenue		312,800
*(\$184,000 x 170%)		

Job Costs:	Job No. 125	Job No. 126	Job No. 127
Balance	\$12,000		
DM	32,000	DM \$ 27,000	DM \$26,000
DL	65,000	DL 39,000	DL 13,000
OH	75,000	OH 45,000	OH 15,000
	\$184,000	\$111,000	\$54,000
10. Manufacturing Overhead		5,000	
Cost of Goods Sold			5,000

To close over-applied overhead.

Question 4

- a. Best estimate is \$4,000 +/- 1.746* (\$300)
\$4,000 +/- 1.7645* (\$300) or \$3,746.20 to \$4,523.80

Wrong answer

- b. Best estimate is: \$2,000:
 $(\$2,000 - \$1,000) / 300 = 3.33$
T table: look at 16 df -- 3.33

Answer: Greater than 99 % or there is between 0.005 and 0.005 percent chance that that firm won't earn at least \$1,000.

Question 5

1. \$360,000

Physical Unit Method:

	<u>A1</u>	<u>B2</u>	<u>Total</u>
Units of Production	120,000	180,000	300,000
Percentage of Total	40.00%	60.00%	
Joint Cost Allocation	\$240,000	\$360,000	\$600,000

2. \$150,000

Net Realizable Value Method:

	<u>A1</u>	<u>B2</u>	<u>Total</u>
Sales Value of Production	\$480,000	\$1,440,000	\$1,920,000
Less: Separable Costs	<u>0</u>	<u>0</u>	<u>0</u>
Net Realizable Value	\$480,000	\$1,440,000	\$1,920,000

Percentage of Total NRV	25.00%	75.00%	
Allocated Joint Cost	\$150,000	\$450,000	\$600,000

3. \$5.263

	Net Realizable Value Method		
	<u>A</u>	<u>B</u>	<u>Total</u>
Sales Value of Production	\$1,200,000	\$3,200,000	\$4,400,000
Less: Separable Costs	<u>200,000</u>	<u>400,000</u>	<u>600,000</u>
Net Realizable Value	1,000,000	2,800,000	3,800,000
Percentage of Total NRV	26.32%	73.68%	
Allocated Joint Cost	\$157,920	\$442,080	\$600,000
Plus: Separable Costs	<u>200,000</u>	<u>400,000</u>	
Total Costs	\$357,920	\$842,080	
Units Produced	120,000	160,000	
Cost per Unit	\$2.983	\$ 5.263	

4. Yes; ABC should process A1 further.

Increase in sales revenue:	120,000*(\$10-\$4) = \$720,000
Increase in cost	<u>\$200,000</u>
Increase in Contribution	\$520,000

Question 6 – Judgement used to award marks.