



ACCA

Paper F2

Management Accounting

December 2014

Final Assessment – Answers



To gain maximum benefit, do not refer to these answers until you have completed the final assessment questions and submitted them for marking.

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SECTION A

1 A

2 B

(i) and (iii) are not relevant as they are sunk costs and non-cash items respectively.

(ii) and (iv) are both relevant.

3 B

Product	20X2 Price (P ₁)	20X2 Quantity (Q ₁)	P ₁ × Q ₁	20X1 Price (P ₀)	20X2 Quantity (Q ₁)	P ₀ × Q ₁
Towel	\$2.00	275	550	\$2.50	275	687.5
Bucket	\$2.25	325	731.25	\$1.75	325	568.75
Spade	\$1.00	400	400	\$0.85	400	340
			1,681.25			1,596.25

Price index = $(\sum P_1 \times Q_1) / \sum (P_0 \times Q_1) = 1,681.25 / 1,596.25 \times 100 = 105.32$

4 C

5 A

Issues:

		\$
15 Jan	30 pairs @ \$2	60
29 Jan	35 pairs @ \$2	70
		———
Value of issues		130
		———

Closing inventory valuation:

		\$
(150 – 65)	85 pairs @ \$2	170
	40 pairs @ \$1.90	76
		———
	125 pairs	246
		———

6 B

Budgeted hours = $\frac{\$216,000}{\$32} = 6,750$ hours

7 C

Variable costs = \$4 per unit, Fixed costs = \$600 per month, therefore annual fixed costs = \$7,200.

8 D

Normal loss = 10% of 3,000 units = 300 units. Value of normal loss (at \$1.50 per unit) = \$450

$$\text{Cost/unit} = \frac{9,000 + 11,970 - 450}{3,000 - 300} = \frac{20,520}{2,700} = \$7.60$$

Valuation of output = \$7.60 × 2,900 = \$22,040

9 A

	\$
Absorption costing profit	72,000
Plus: Change in inventory × OAR	
-2000 × 5	-10,000
Marginal costing profit	<u>62,000</u>

10 D

$$\text{ROI} = 280,000 / 540,000 \times 100 = 52\%$$

$$\text{RI} = 280,000 - (540,000 \times 0.08) = \$236,800$$

11 C**12 C**

$$\text{Re-order level} = \text{Max usage} + \text{Max lead} = 95 \times 18 = 1,710$$

13 B

$$\text{Budgeted hourly absorption rate} = \$7,500 / 10,000 \text{ hours} = \$0.75$$

$$\text{Standard hours} \times \text{OAR} = 790 \times 10 \times 0.75 = 5,925$$

EFFICIENCY VARIANCE **711 (A)**

$$\text{Actual hours} \times \text{OAR} = 8,848 \times 0.75 = 6,636$$

CAPACITY VARIANCE **864 (A)**

$$\text{Budgeted hours} \times \text{OAR} = 10,000 \times 0.75 = 7,500$$

14 C

Cluster sampling is similar to Multi-stage sampling but the final step is to sample every item in the final sub-division.

15 \$3,900F

Use materials purchased to calculate price variances.

Material A

$$AQ \times AP = 18,400$$

PRICE VARIANCE **200 (A)**

$$AQ \times SP = 2,600 \times 7.0 = 18,200$$

Material B

$$AQ \times AP = 38,800$$

PRICE VARIANCE **4,100 (F)**

$$AQ \times SP = 3,900 \times 11.0 = 42,900$$

Total variance = 4,100 (F) + 200 (A) = 3,900 (F)

16 D

17 B

Budgeted volume	1,700 units
Actual volume	1,800 units
	100
× Standard unit contribution	× \$30
	3,000 (F)

18 C

Cost per unit of normal output is: $\frac{\text{Cost of process} - \text{Net realisable value of normal loss}}{\text{Expected value}}$

Therefore statement 1 is true:

Abnormal losses do not affect the cost per unit of normal output so statement 2 is false.

19 C

Actual output in standard hours / actual production hours × 100

$$(5 \times 20 / 60) / 1 \times 100 = 167\%$$

20 C

$$b = \frac{n \sum xy - \sum x \sum y}{n \sum x^2 - (\sum x)^2} = \frac{(15 \times 550) - (25 \times 271)}{(15 \times 65) - (25)^2} = \frac{1475}{350} = 4.21$$

21 A

Variable cost per unit = $(15,700 - 13,405) / (3,200 - 2,180) = 2.25$
 Fixed cost = $15,700 - (3,200 \times 2.25) = 8,500$
 Total cost = $8,500 + (2.25 \times 2,560) = 14,260$

22 \$32,340

Year	Cash flow	DF	PV
	\$		\$
0	(500,000)	1.000	(500,000)
1	180,000	0.909	163,620
2	210,000	0.826	173,460
3	260,000	0.751	195,260
NPV			32,340

23 B

24 A

Year	Cash	20% annuity factor	Present value
0	(85,000)	1.000	(85,000)
1-6	24,000	3.326	79,824
			<hr/>
			(5,176)

$$5 + \frac{\$36,824}{\$36,824 - (\$5,176)} \times (20 - 5) = 18\%$$

25 B

26 D

The cost of ingredients is a direct material cost.

27 C

Budgeted production

Farmhouse = $7,500 + 900 - 1,800 = 6,600$
 Cottage = $12,000 + 1,200 - 2,400 = 10,800$
 Labour hours = $(6,600 \times 10) + (10,800 \times 16) = 238,800$

28 B

29 \$130,800

April receipts	
April sales 150,000 × 40% in cash	60,000
March sales 140,000 × 60% × 50%	42,000
February sales 120,000 × 60% × 40%	28,800

Total	130,800

30 C

In May the company will pay for goods purchased in March to meet April sales.

31 D

32 A

Actual hours × Actual rate	= 41,150
RATE VARIANCE	1,600 (F)
Actual hours × Standard rate	= (4,750 × \$9) = 42,750
EFFICIENCY VARIANCE	2,250 (A)
Standard hours × Standard rate	= (750 × 6 × 9) = 40,500

33 A

- (i) The use of inexperienced staff – staff are paid less and are less efficient
- (ii) A machine breakdown – staff will still be paid while the machine is repaired
- (iii) Higher quality of material being purchased than expected – this should improve efficiency
- (iv) A lower than expected sales demand – should have little effect on the labour force

34 98°

Total sales = \$2,134,000.
 Region 5 = \$578 / \$2,134 × 360 = 97.51° = 98°

35 A

SECTION B

1 Flexed budgeted and actual operating statement for the year ended 30 April 20X6

	Flexed Budget		Actual		Variance
Volume	72,000		72,000		
	\$000	\$000	\$000	\$000	\$000
Revenue		2,880		3,600	720 F
Material	504		530		26 A
Labour	576		480		96 F
Electricity	272		248		24 F
Maintenance	440		380		60 F
Rent and rates	250		300		50 A
Depreciation	160		160		0 0
Administration	100		140		40 A
Operating profit		578		1,362	784 F

Workings

Budgeted unit selling price	$\$2,000,000/50,000$	\$40.00
Budgeted unit material cost	$\$350,000/50,000$	\$7.00
Budgeted unit labour cost	$\$400,000/50,000$	\$8.00
Budgeted variable unit cost of electricity	$(\$195,000 - \$20,000)/50,000$	\$3.50
Budgeted maintenance cost per 10,000 Osca	$\$275,000/5$	\$55,000.00

Marking scheme	
	<i>Marks</i>
Flexed budget	
Revenue	0.5
Material	0.5
Labour	0.5
Electricity	1
Maintenance	1
Rent and rates	0.5
Depreciation	0.5
Administration	0.5
Operating profit	0.5
Correct variance value and correct adverse/favourable	0.5 for each
	—
	10
	—

2

(i) Standard price of materials per kilogram

$$\frac{\$4,500,000}{10,000} = \$450 \text{ per kilogram}$$

(ii) Standard usage of materials for actual production

$$\frac{10,000}{200,000} \times 190,000 = 9,500 \text{ kilograms}$$

(iii) Total standard cost for actual production

$$\$5,950,000/200,000 \times 190,000 = \$5,652,500$$

(iv) **Complete the operating statement reconciling the standard total cost for actual production with the actual total cost of actual production.**

Budgeted cost for 190,000 units			\$5,652,500
	Variance	Adverse/ Favourable	
Direct material price variance	\$479,750	F	
Direct material usage variance	\$42,750	A	
Labour rate variance	\$40,000	A	
Labour efficiency variance	\$10,000	A	
Fixed overhead expenditure variance	\$125,000	A	
Fixed overhead capacity variance	0	0	
Fixed overhead efficiency variance	\$62,500	A	
Actual cost for 190,000 units			\$5,453,000

Workings

Direct material price variance

$$(9,595 \times 450) - \$3,838,000 = \$479,750 \text{ favourable}$$

$$\text{or } 9,595 \times (\$450 - \$400) = \$479,750 \text{ favourable}$$

Direct material usage variance

$$[(190,000 \times 0.05) - 9,595] \$450 = \$42,750 \text{ adverse}$$

$$\text{or } 190,000 \times 0.05 \times \$450 - 9,595 \times \$450 = \$42,750 \text{ adverse}$$

Fixed overhead expenditure variance

$$\$1,250,000 - \$1,375,000 = \$125,000 \text{ adverse}$$

Fixed overhead capacity variance

Nil because the actual hours worked are the same as the budgeted hours worked.

Fixed overhead efficiency variance

$$[(20,000/200,000 \times 190,000) - 20,000] \times 1,250,000/20,000 = \$62,500 \text{ adverse}$$

(v)

	Tick
Direct material price variance	
Direct material usage variance	
Labour rate variance	
Labour efficiency variance	
Fixed overhead expenditure variance	
Fixed overhead capacity variance	✓
Fixed overhead efficiency variance	✓

Marking scheme	
(i)	Marks 1
(ii)	1
(iii)	1
(iv) Calculation of budgeted cost	0.5
Calculation of each variance value	0.5
Correct identification of adverse or favourable	0.5
Correct calculation of actual cost	0.5
(v)	1
	—
	10
	—

3 Calculate the following performance indicators for both companies (to 2 decimal places):

	Clean Ltd	First Blade Ltd
(i) Gross profit margin	$2,060/5,150 = 40.00\%$	$1,925/3,500 = 55.00\%$
(ii) Distribution costs as a percentage of turnover	$850/5,150 = 16.50\%$	$875/3,500 = 25.00\%$
(iii) Admin expenses as a percentage of turnover	$750/5,150 = 14.56\%$	$875/3,500 = 25.00\%$
(iv) Operating profit margin	$460/5,150 = 8.93\%$	$175/3,500 = 5.00\%$
(v) Return on Capital Employed	$460/4,000 = 11.50\%$	$175/2,500 = 7.00\%$
(vi) Capacity ratio	$37,500/41,000 = 91.46\%$	$22,000/20,000 = 110.00\%$
(vii) Efficiency ratio	$40,000/37,500 = 106.67\%$	$21,750/22,000 = 98.86\%$

- (viii) **Recalculate the Return on Capital Employed in the event that Clean Ltd decides to increase its share capital by \$3m in order to purchase the net assets of First Blade Ltd for \$3 million.** (3 marks)

Operating profit for Clean	\$460,000
Operating profit for First Blade	\$175,000
Adjustment to operating profit as a result of reduction in administration costs	\$400,000
Combined operating profit	\$1,035,000
Net assets of Clean before acquisition	\$4,000,000
Increase in net assets of Clean	\$3,000,000
Total net assets post acquisition	\$7,000,000
New Return on Capital Employed	14.79%

Marking scheme	
(i)- (vii) 0.5 marks per correct answer	<i>Marks</i> 7
(viii) Combined operating profit	1
Total net assets post acquisition	1
New ROCE %	1
	—
	10
	—

