

**Accounting**

Advanced GCE

Unit **F014**: Management Accounting

**Mark Scheme for June 2012**

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All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

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## Annotations

Annotation	Meaning
	Unclear
	Benefit of doubt
	Cross
	Own figure rule
	Repeat
	Noted but no credit given
	Tick

**Subject-specific Marking Instructions**

Every working box – whether they contain working or not- must be stamped as “seen”.

**Quality of Written Communication**

The rubric states:

*\* In these two questions/sub questions, you will be assessed on the quality of your written communication. In one of these questions, the focus will be on your ability to present numerical information legibly and in an appropriate accounting format. In the other, you will be assessed on the legibility and style of writing, the clarity and coherence of your arguments and the accuracy of your spelling, punctuation and grammar.*

**Levels of Response for Numerical Questions**

Level	Mark	Description
3	3	All account headings, terms and balances are included appropriately and in line with accounting conventions. All figures are legible with effective use made of columns and sub-totals. All accounts are ruled off as appropriate.
2	2	Almost all account headings, terms and balances are included appropriately and in line with accounting conventions. Figures are legible with effective use made of columns and sub-totals. Accounts are ruled off as appropriate.
1	1	Some account headings, terms and balances are included though not always adhered to accounting conventions. Most figures are legible. Some appropriate use is made of columns and sub-totals. Some accounts are ruled off as appropriate.
-	0	Responses which fail to achieve the standard required for Level 1.

**Levels of Response for Narrative Questions**

Level	Mark	Description
2	2	Ideas, some complex, are expressed clearly and quite fluently, using an appropriate style of writing. Arguments made are generally relevant and are constructed in a logical and coherent manner. There are few errors of spelling, punctuation and grammar, and those that are made are not intrusive and do not obscure meaning.
1	1	Relatively straightforward or simple ideas are expressed in a generally appropriate style of writing which sometimes lacks clarity or fluency. Arguments have some limited coherence and structure occasionally showing relevance to the main focus of the questions. There are errors of spelling, punctuation and grammar which are noticeable and sometimes intrusive but do not totally obscure meaning.
-	0	Responses which fail to achieve the standard required for Level 1.

Question		Answer	Marks	Guidance
1	(a) (i)	<u>MPV</u> P1: $(8.50 - 8.40)210 = 21\text{F}(1)$ P2: $(8.55 - 8.50)220 = 11\text{F}(1)$ P3: $(8.70 - 8.60)150 = 15\text{F}(1)$	3	
	(ii)	<u>MUV</u> P1: $(180 - 210)8.50 = 255\text{A}(1)$ P2: $(200 - 220)8.55 = 171\text{A}(1)$ P3: $(130 - 150)8.70 = 174\text{A}(1)$	3	
	(iii)	<u>LRV</u> P1: $(9.20 - 9.50)200 = 60\text{A}(1)$ P2: $(8.70 - 8.80)60 = 6\text{A}(1)$ P3: $(8.60 - 8.70)80 = 8\text{A}(1)$	3	
	(iv)	<u>LEV</u> P1: $(220 - 200)9.20 = 184\text{F}(1)$ P2: $(70 - 60)8.70 = 87\text{F}(1)$ P3: $(90 - 80)8.60 = 86\text{F}(1)$	3	
	(b)	<u>Material</u> Better quality, more expensive, adverse price. Less usage, favourable usage. Inferior quality, cheaper, favourable price. Greater usage, adverse usage.  <u>Labour</u> Higher skilled labour, more expensive, adverse rate. More efficient, favourable efficiency.  Less skilled labour, cheaper, favourable rate. Less efficient, adverse efficiency. <b>(Each variance 1 x 4 marks)</b>	8	

Question		Answer	Marks	Guidance
	(c)	<p>Expense – a system may be expensive to install and time consuming to keep up to date.</p> <p>Volatile conditions – in volatile conditions standards can get out of date quickly and will need constant updating.</p> <p>Type – need agreement on the most appropriate, ideal or attainable. Basis of setting.</p> <p>Modern management – might conflict with modern management, where employees are expected to strive for continuous improvement, rather than meet a standard.  <b>(2 x 3 marks)</b>  <b>(1 for point plus up to 2 for development)</b></p>	6	
		<b>Total</b>	<b>26</b>	

Question		Answer			Marks	Guidance
2	(a)				3	
		% DM	$\frac{840,000}{560,000} = 150\%(1)$			
		% DL	$\frac{840,000}{350,000} = 240\%(1)$			
		MHR	$\frac{840,000}{40,000} = \text{£}21(1)$			
	(b)				7	
			<u>% DM</u>	<u>% DL</u>	<u>MHR</u>	
		Direct materials	2,400	2,400	2,400	
		Direct labour	<u>1,800</u>	<u>1,800</u>	<u>1,800</u>	
		Prime cost	4,200(1)	4,200	4,200	
		Production overhead	<u>3,600(1)</u>	<u>4,320(1)</u>	<u>3,360(1)</u>	
		Production cost	7,800	8,520	7,560	
		Administration 20%	<u>1,560</u>	<u>1,704</u>	<u>1,512</u>	
		Total cost	9,360	10,224	9,072	
		Profit	<u>2,340</u>	<u>2,556</u>	<u>2,268</u>	
		Selling price	<u>11,700(1)</u>	<u>12,780(1)</u>	<u>11,340(1)</u>	

Question	Answer	Marks	Guidance
(c)*	<p><u>% DM</u> Usually no relationship between materials and overhead. Simple to calculate but not related to time. A job requiring expensive material will be charged more overhead than a job requiring cheaper material even though the overhead incurred could be the same. To be accurate need same material, time and equipment.</p> <p><u>% DL</u> No distinction between slow and quick labour. Simple to calculate but not related to time. Compared to materials, labour rates are likely to be similar. To be reasonable need uniform rate and equipment.</p> <p><u>MHR</u> Most overheads related to time and this method is time based. Preferred if machining is the dominant factor. If different machines used, then a different rate could be calculated for each machine. <b>(3 x 4 marks)</b> <b>(1 for point plus up to 3 for development) (12)</b> <b>QWC (2)</b></p>	12	
		<b>QWC</b> 2	Must show QWC has been considered even if 0
		<b>Total</b> 24	



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3	(a)	<u>Sales Calculations</u> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;"><u>Aug</u></th> <th style="text-align: center;"><u>Sept</u></th> <th style="text-align: center;"><u>Oct</u></th> <th style="text-align: center;"><u>Nov</u></th> </tr> </thead> <tbody> <tr> <td>Sales</td> <td style="text-align: right;">30,000</td> <td style="text-align: right;">32,000</td> <td style="text-align: right;">31,000</td> <td style="text-align: right;">35,000</td> </tr> <tr> <td>60% -1%</td> <td style="text-align: right;">17,820</td> <td style="text-align: right;">19,008</td> <td style="text-align: right;">18,414</td> <td style="text-align: right;">20,790</td> </tr> <tr> <td>40%</td> <td></td> <td></td> <td style="text-align: right;">12,000</td> <td style="text-align: right;">12,800</td> </tr> <tr> <td></td> <td style="text-align: right;">17,820</td> <td style="text-align: right;">19,008</td> <td style="text-align: right;">30,414</td> <td style="text-align: right;">33,590</td> </tr> <tr> <td>Disc all</td> <td style="text-align: right;">180</td> <td style="text-align: right;">192</td> <td style="text-align: right;">186</td> <td style="text-align: right;">210</td> </tr> </tbody> </table> <u>Purchases</u> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;"><u>Aug</u></th> <th style="text-align: center;"><u>Sept</u></th> <th style="text-align: center;"><u>Oct</u></th> <th style="text-align: center;"><u>Nov</u></th> </tr> </thead> <tbody> <tr> <td>Purchases</td> <td style="text-align: right;">20,000</td> <td style="text-align: right;">18,000</td> <td style="text-align: right;">18,000</td> <td style="text-align: right;">24,000</td> </tr> <tr> <td></td> <td style="text-align: right;">20,000</td> <td></td> <td></td> <td></td> </tr> <tr> <td>100% – 2%</td> <td></td> <td style="text-align: right;">17,640</td> <td style="text-align: right;">17,640</td> <td style="text-align: right;">23,520</td> </tr> <tr> <td>Disc rec</td> <td></td> <td style="text-align: right;">360</td> <td style="text-align: right;">360</td> <td style="text-align: right;">480</td> </tr> </tbody> </table> <table style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td>Sales</td> <td style="text-align: right;">128,000</td> </tr> <tr> <td>50% profit margin</td> <td style="text-align: right;">64,000</td> </tr> <tr> <td>Cost of sales</td> <td style="text-align: right;">64,000</td> </tr> </tbody> </table> <table style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td>Purchases</td> <td style="text-align: right;">80,000</td> </tr> <tr> <td>Cost of sales</td> <td style="text-align: right;">64,000</td> </tr> <tr> <td>Closing stock</td> <td style="text-align: right;">16,000</td> </tr> </tbody> </table>					<u>Aug</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	Sales	30,000	32,000	31,000	35,000	60% -1%	17,820	19,008	18,414	20,790	40%			12,000	12,800		17,820	19,008	30,414	33,590	Disc all	180	192	186	210		<u>Aug</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	Purchases	20,000	18,000	18,000	24,000		20,000				100% – 2%		17,640	17,640	23,520	Disc rec		360	360	480	Sales	128,000	50% profit margin	64,000	Cost of sales	64,000	Purchases	80,000	Cost of sales	64,000	Closing stock	16,000	14	
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		<u>Cash Budget for the four months ending 30 November 2012</u>					
		<u>Aug</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>		
		<u>Receipts</u>					
		Capital	50,000				
		Cash Sales	17,820(1)	19,008 (1)	18,414(1)	20,790(1)	
		Credit Sales			12,000(1)	12,800(1)	
			<hr/>	<hr/>	<hr/>	<hr/>	
			67,820	19,008	30,414	33,590	
		<u>Payments</u>					
		Purchases	20,000(1)	17,640 (1)	17,640 (1)	23,520 (1)	
		Salaries		8,000	8,000	8,000 (1)	
		Drawings	3,000	3,000	3,000	3,000 (1)	
		Equipment Expenses			13,000	13,000 (1)	
			3,600	3,600	3,600	3,600 (1)	
			<hr/>	<hr/>	<hr/>	<hr/>	
			26,600	32,240	45,240	51,120	
		Net cash flow	41,220	(13,232)	(14,826)	(17,530)	
		Opening Balance		41,220	27,988	13,162	
		Closing Balance	<hr/>	<hr/>	<hr/>	<hr/>	
			41,220	27,988	13,162	(4,368)	

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(b)*	<p><u>Budgeted Trading and Profit and Loss Account for the four months ending 30 November 2012</u></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Sales</td> <td style="width: 20%;"></td> <td style="width: 20%; text-align: right;">128,000 (1)</td> </tr> <tr> <td>Opening stock</td> <td style="text-align: center;">-</td> <td></td> </tr> <tr> <td>Purchases</td> <td style="text-align: right;">80,000</td> <td></td> </tr> <tr> <td></td> <td style="text-align: right; border-top: 1px solid black;">80,000</td> <td></td> </tr> <tr> <td>Closing stock</td> <td style="text-align: right;">16,000</td> <td></td> </tr> <tr> <td></td> <td style="text-align: right; border-top: 1px solid black;">16,000</td> <td></td> </tr> <tr> <td>Cost of sales</td> <td></td> <td style="text-align: right;">64,000</td> </tr> <tr> <td>Gross Profit</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">64,000 (2)</td> </tr> <tr> <td>Discount received</td> <td></td> <td style="text-align: right;">1,200 (1)</td> </tr> <tr> <td></td> <td></td> <td style="text-align: right; border-top: 1px solid black;">65,200</td> </tr> <tr> <td>Discount allowed</td> <td style="text-align: right;">768 (1)</td> <td></td> </tr> <tr> <td>Salaries</td> <td style="text-align: right;">32,000 (1)</td> <td></td> </tr> <tr> <td>Depreciation</td> <td style="text-align: right;">3,250 (2)</td> <td></td> </tr> <tr> <td>Expenses</td> <td style="text-align: right;">14,400</td> <td></td> </tr> <tr> <td></td> <td style="text-align: right; border-top: 1px solid black;">50,418</td> <td></td> </tr> <tr> <td>Net Profit</td> <td></td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 3px double black;">14,782</td> </tr> </table> <p><u>Budgeted Balance sheet as at 30 November 2012</u></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;"><u>Fixed Assets</u></td> <td style="width: 20%;"></td> <td style="width: 20%; text-align: right;">35,750 (2)</td> </tr> <tr> <td><u>Current Assets</u></td> <td></td> <td></td> </tr> <tr> <td>Stock</td> <td style="text-align: right;">16,000 (1)</td> <td></td> </tr> <tr> <td>Debtors</td> <td style="text-align: right;">26,400 (1)</td> <td></td> </tr> <tr> <td></td> <td style="text-align: right; border-top: 1px solid black;">42,400</td> <td></td> </tr> <tr> <td><u>Current Liabilities</u></td> <td></td> <td></td> </tr> <tr> <td>Salaries</td> <td style="text-align: right;">8,000 (1)</td> <td></td> </tr> <tr> <td>Equipment</td> <td style="text-align: right;">13,000 (1)</td> <td></td> </tr> <tr> <td>Bank</td> <td style="text-align: right;">4,368</td> <td></td> </tr> <tr> <td></td> <td style="text-align: right; border-top: 1px solid black;">25,368</td> <td></td> </tr> <tr> <td>Working Capital</td> <td></td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 3px double black;">17,032 52,782</td> </tr> </table>	Sales		128,000 (1)	Opening stock	-		Purchases	80,000			80,000		Closing stock	16,000			16,000		Cost of sales		64,000	Gross Profit		64,000 (2)	Discount received		1,200 (1)			65,200	Discount allowed	768 (1)		Salaries	32,000 (1)		Depreciation	3,250 (2)		Expenses	14,400			50,418		Net Profit		14,782	<u>Fixed Assets</u>		35,750 (2)	<u>Current Assets</u>			Stock	16,000 (1)		Debtors	26,400 (1)			42,400		<u>Current Liabilities</u>			Salaries	8,000 (1)		Equipment	13,000 (1)		Bank	4,368			25,368		Working Capital		17,032 52,782	16	
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Question		Answer	Marks	Guidance
		<u>Financed By</u> Capital                    50,000 (1) Net profit                    14,782 <hr/> 64,782 Drawings                    12,000 (1) <hr/> 52,782 <hr/> <div style="text-align: right;"><b>QWC</b></div>	3	Must show QWC has been considered even if 0
	(c)	<p>Purchases are paid in the month received, whilst 40% sales are on two months credit. This may lead to cash flow problems. Consider allowing additional discount for earlier receipts from sales.</p> <p>Initially positive cash flow, influenced by capital. Increasing negative cash flow each month with deficit cash balance in November.</p> <p>Amount of drawings contributing to deficit cash balance. Capital expenditure plans reduce cash balance, could payment terms be extended or equipment leased.</p> <p>In short term seek bank overdraft facility/loan. These more likely to be given if business shows future projections reverting to a positive cash balance.</p> <p><b>(3 x 3 marks)</b>  <b>(1 for point plus up to 2 for development)</b></p>	9	
		<b>Total</b>	<b>42</b>	

Question		Answer	Marks	Guidance																																								
4	(a) (i)	<p><u>Depreciation</u></p> <p><u>X</u>  <math>\frac{455,000 - 35,000}{4} = 105,000</math></p> <p><u>Y</u>  <math>\frac{560,000 - 40,000}{4} = 130,000</math></p> <p><u>Net cash flow</u></p> <p><u>X</u></p> <table> <thead> <tr> <th>Year</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> </tr> </thead> <tbody> <tr> <td>Receipts</td> <td>310,000</td> <td>370,000</td> <td>430,000</td> <td>340,000</td> </tr> <tr> <td>Costs(excl depn)</td> <td><u>140,000</u></td> <td><u>190,000</u></td> <td><u>220,000</u></td> <td><u>180,000</u></td> </tr> <tr> <td>NCF</td> <td><u>170,000</u></td> <td><u>180,000(1)</u></td> <td><u>210,000(1)</u></td> <td><u>160,000</u></td> </tr> </tbody> </table> <p><u>Y</u></p> <table> <thead> <tr> <th>Year</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> </tr> </thead> <tbody> <tr> <td>Receipts</td> <td>330,000</td> <td>440,000</td> <td>480,000</td> <td>350,000</td> </tr> <tr> <td>Costs (excl depn)</td> <td><u>150,000</u></td> <td><u>240,000</u></td> <td><u>250,000</u></td> <td><u>160,000</u></td> </tr> <tr> <td>NCF</td> <td><u>180,000</u></td> <td><u>200,000(1)</u></td> <td><u>230,000(1)</u></td> <td><u>190,000</u></td> </tr> </tbody> </table>	Year	1	2	3	4	Receipts	310,000	370,000	430,000	340,000	Costs(excl depn)	<u>140,000</u>	<u>190,000</u>	<u>220,000</u>	<u>180,000</u>	NCF	<u>170,000</u>	<u>180,000(1)</u>	<u>210,000(1)</u>	<u>160,000</u>	Year	1	2	3	4	Receipts	330,000	440,000	480,000	350,000	Costs (excl depn)	<u>150,000</u>	<u>240,000</u>	<u>250,000</u>	<u>160,000</u>	NCF	<u>180,000</u>	<u>200,000(1)</u>	<u>230,000(1)</u>	<u>190,000</u>	4	
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	<p>(iii) <u>X</u></p> <table border="1"> <thead> <tr> <th><u>Year</u></th> <th><u>NCF</u></th> <th><u>DF</u></th> <th><u>PV</u></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>170,000</td> <td>0.893</td> <td>151,810(1)</td> </tr> <tr> <td>2</td> <td>180,000</td> <td>0.797</td> <td>143,460</td> </tr> <tr> <td>3</td> <td>210,000</td> <td>0.712</td> <td>149,520</td> </tr> <tr> <td>4</td> <td>160,000</td> <td>0.636</td> <td>101,760</td> </tr> <tr> <td>4</td> <td>35,000</td> <td>0.636</td> <td><u>22,260(1)</u></td> </tr> <tr> <td></td> <td></td> <td></td> <td>568,810</td> </tr> <tr> <td>Capital cost</td> <td></td> <td></td> <td><u>455,000(1)</u></td> </tr> <tr> <td>Net present value</td> <td></td> <td></td> <td><u>113,810(1)</u></td> </tr> </tbody> </table> <p><u>Y</u></p> <table border="1"> <thead> <tr> <th><u>Year</u></th> <th><u>NCF</u></th> <th><u>DF</u></th> <th><u>PV</u></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>180,000</td> <td>0.893</td> <td>160,740(1)</td> </tr> <tr> <td>2</td> <td>200,000</td> <td>0.797</td> <td>159,400</td> </tr> <tr> <td>3</td> <td>230,000</td> <td>0.712</td> <td>163,760</td> </tr> <tr> <td>4</td> <td>190,000</td> <td>0.636</td> <td>120,840</td> </tr> <tr> <td>4</td> <td>40,000</td> <td>0.636</td> <td><u>25,440(1)</u></td> </tr> <tr> <td></td> <td></td> <td></td> <td>630,180</td> </tr> <tr> <td>Capital cost</td> <td></td> <td></td> <td><u>560,000(1)</u></td> </tr> <tr> <td>Net present value</td> <td></td> <td></td> <td><u>70,180(1)</u></td> </tr> </tbody> </table>	<u>Year</u>	<u>NCF</u>	<u>DF</u>	<u>PV</u>	1	170,000	0.893	151,810(1)	2	180,000	0.797	143,460	3	210,000	0.712	149,520	4	160,000	0.636	101,760	4	35,000	0.636	<u>22,260(1)</u>				568,810	Capital cost			<u>455,000(1)</u>	Net present value			<u>113,810(1)</u>	<u>Year</u>	<u>NCF</u>	<u>DF</u>	<u>PV</u>	1	180,000	0.893	160,740(1)	2	200,000	0.797	159,400	3	230,000	0.712	163,760	4	190,000	0.636	120,840	4	40,000	0.636	<u>25,440(1)</u>				630,180	Capital cost			<u>560,000(1)</u>	Net present value			<u>70,180(1)</u>	8	
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(b)	<p>X has shorter payback.            Payback characteristics (no timing, period).            X has lower capital cost.            Both have positive net present value.            X has highest net present value.            Net present value characteristics (timing, all period)            Availability of finance.            Small difference in payback.            Sales greater for Y.            Increased wages for X.            Increased transport costs for X.            Both have residual value.            All figures are estimated and may not materialise.            Recommendation.  <b>(6 x 1 mark)</b></p>	6	
(c)	<p>Local community, effects of noise and traffic congestion with X, impact on house prices.</p> <p>Greater employment opportunities with X, multiplier impact.</p> <p>Health and Safety issues with X for employers and local community.</p> <p>Environment, additional transport for X, effects of disposing toxic waste.</p> <p>Public relations, negative publicity if involved with toxic waste.  <b>(2 x 3 marks)</b>  <b>(1 for point plus up to 2 for development)</b></p>	6	
	<b>Total</b>	<b>28</b>	

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