Cambridge Assessment International Education

Cambridge International AS & A Level

ACCOUNTING **9706/43**

Paper 4 Cost and Management Accounting **October/November 2023**

MARK SCHEME

Maximum Mark: 50

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the October/November 2023 series for most Cambridge IGCSE, Cambridge International A and AS Level components, and some Cambridge O Level components.

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Generic Marking Principles

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

GENERIC MARKING PRINCIPLE 1:

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

GENERIC MARKING PRINCIPLE 2:

Marks awarded are always **whole marks** (not half marks, or other fractions).

GENERIC MARKING PRINCIPLE 3:

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

GENERIC MARKING PRINCIPLE 4:

Rules must be applied consistently, e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

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GENERIC MARKING PRINCIPLE 5: Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).
GENERIC MARKING PRINCIPLE 6: Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

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Social Science-Specific Marking Principles
(for point-based marking)

1 Components using point-based marking:

- Point marking is often used to reward knowledge, understanding and application of skills. We give credit where the candidate's answer shows relevant knowledge, understanding and application of skills in answering the question. We do not give credit where the answer shows confusion.

From this it follows that we:

a DO credit answers which are worded differently from the mark scheme if they clearly convey the same meaning (unless the mark scheme requires a specific term)
b DO credit alternative answers/examples which are not written in the mark scheme if they are correct
c DO credit answers where candidates give more than one correct answer in one prompt/numbered/scaffolded space where extended writing is required rather than list-type answers. For example, questions that require *n* reasons (e.g. State two reasons …).
d DO NOT credit answers simply for using a 'key term' unless that is all that is required. (Check for evidence it is understood and not used wrongly.)
e DO NOT credit answers which are obviously self-contradicting or trying to cover all possibilities
f DO NOT give further credit for what is effectively repetition of a correct point already credited unless the language itself is being tested. This applies equally to 'mirror statements' (i.e. polluted/not polluted).
g DO NOT require spellings to be correct, unless this is part of the test. However spellings of syllabus terms must allow for clear and unambiguous separation from other syllabus terms with which they may be confused (e.g. Corrasion/Corrosion)

2 Presentation of mark scheme:

- Slashes (/) or the word 'or' separate alternative ways of making the same point.
- Semi colons (;) bullet points (•) or figures in brackets (1) separate different points.
- Content in the answer column in brackets is for examiner information/context to clarify the marking but is not required to earn the mark (except Accounting syllabuses where they indicate negative numbers).

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3 Calculation questions:

- The mark scheme will show the steps in the most likely correct method(s), the mark for each step, the correct answer(s) and the mark for each answer
- If working/explanation is considered essential for full credit, this will be indicated in the question paper and in the mark scheme. In all other instances, the correct answer to a calculation should be given full credit, even if no supporting working is shown.
- Where the candidate uses a valid method which is not covered by the mark scheme, award equivalent marks for reaching equivalent stages.
- Where an answer makes use of a candidate's own incorrect figure from previous working, the 'own figure rule' applies: full marks will be given if a correct and complete method is used. Further guidance will be included in the mark scheme where necessary and any exceptions to this general principle will be noted.

4 Annotation:

- For point marking, ticks can be used to indicate correct answers and crosses can be used to indicate wrong answers. There is no direct relationship between ticks and marks. Ticks have no defined meaning for levels of response marking.
- For levels of response marking, the level awarded should be annotated on the script.
- Other annotations will be used by examiners as agreed during standardisation, and the meaning will be understood by all examiners who marked that paper.

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ANNOTATIONS

The following annotations are used in marking this paper and should be used by examiners.

Annotation	Use or meaning
✓	Correct and relevant point made in answering the question.
×	Incorrect point or error made.
LNK	Two statements are linked.
REP	Repeat
A	An extraneous figure
N0	No working shown
AE	Attempts evaluation
R1	Required item 1
R2	Required item 2
OF	Own figure
EVAL	Evaluation
NAQ	Not answered question
BOD	Benefit of the doubt given.
SEEN	Noted but no credit given
Highlight	Highlight
Off page Comment	Off page comment

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Abbreviations and guidance
The following abbreviations may be used in the mark scheme:

OF = own figure. The answer will be marked correct if a candidate has correctly used their own figure from a previous part or calculation.

W = working. The working for a figure is given below. Where the figure has more than one mark associated with it, the working will show where individual marks are to be awarded.

CF = correct figure. The figure has to be correct i.e. no extraneous items have been included in the calculation

Extraneous item = an item that should not have been included in a calculation, including indirect expenses such as salaries in calculation of gross profit when there is one **OF** mark for gross profit'

Curly brackets, }, are used to show where one mark is given for more than one figure. If the figures are not adjacent, each is marked with a curly bracket and a symbol e.g. **}***

row = all figures in the row must be correct for this mark to be awarded

Marks for figures are dependent on correct sign/direction

Accept other valid responses. This statement indicates that marks may be awarded for answers that are not listed in the mark scheme but are equally valid.

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Question	Answer	Marks
1(a)	**Prepare the flexible budget statement for the month of April.** $ Sales revenue ($184 000/2 000) × 2180 200 560 **}** Direct materials ($84 000/2 000) × 2180 91 560 **}** Direct labour ($60 000/2 000) × 2180 65 400 **} (1)** Fixed overhead ($18 000/2 000) × 2180 19 620 **(1)** Total cost 176 580 Budgeted profit 23 980 **(1) OF**	**3**
1(b)(i)	**Calculate the following variances:** **sales price** Sales price variance $184 000/2000 = $92 (2180 × $92) – $196 200= $4360 **(1)** A **(1)**	**2**
1(b)(ii)	**Calculate the following variances:** **sales volume (as a measure of change in profit)** Sales volume variance $22 000/2000 =$11 (2180 – $2000) × $11=$1980 **(1)** F **(1)**	**2**
1(b)(iii)	**Calculate the following variances:** **fixed overhead expenditure** Fixed overhead expenditure $18 400 – $18 000 = $400 **(1)** A **(1)**	**2**

Question	Answer	Marks
1(b)(iv)	**Calculate the following variances:** **fixed overhead volume** Fixed overhead volume $19 620 OF – $18 000 = $1620 **(1)** F **(1)**	**2**
1(c)	**Prepare a statement to reconcile the flexible budgeted profit as calculated in (a) with the actual profit. Your statement should start with the flexible budgeted profit.**	**7**

	$		
Flexible budgeted profit	23 980		**(1)OF**
Sales price variance	(4 360)	A}	
Direct materials variance ($113 796 – $91 560)	(22 236)	A	**(2)**
Direct labour variance ($65 400 – 55 590)	9 810	F	**(2)**
Fixed overhead expenditure	(400)	A}	
Fixed overhead volume	1 620	F}	**(1)OF**
Actual profit	8 414		**(1)**

Question	Answer	Marks
1(d)	**Advise the directors which supplier they should choose. Justify your answer and support it with relevant calculations.** **Calculations** The unit cost for both suppliers is the same – (2.8 × $13.75) = (2.5 × $15.40) = $38.50 **(1)** The unit cost $38.5 by either supplier is lower than the budgeted cost of $42 ($84 000/2 000) and actual cost of $52.20 ($113 796/2 180) **(1)** **Max 2** **Comments** The quality of materials from supplier B is better than from A **(1)** because of less wastage **(1)** Direct material of poor quality may affect the efficiency of workers as well as the quality of final product **(1)** The unit purchase price of supplier A is lower than B **(1)** Additional costs may be incurred for supplier B, i.e. import duty, freight charge and insurance **(1)** As delivery takes time, prompt delivery from supplier B may not be possible **(1)** for an urgent order **(1)** **Max 4** **Decision supported by a comment (1)** **Accept other valid responses.**	**7**

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Question	Answer	Marks
2(a)(i)	**Prepare a statement showing the net cash flow for each year from Year 0 to Year 3 for:** **model IM3** Option 1 – Model IM3	**5**

	Year 0		Year 1	Year 2	Year 3	
	$		$	$	$	
Purchase price	(141 000)	**}**				
Cost of improvement	(57 000)	**}(1)**				
Sales **W1**			624 000	780 000	520 000	**(1) row**
Operating cost **W2**			(288 000)	(360 000)	(240 000)	**(1) row**
Other fixed overheads **W3**			(261 000)	(261 000)	(261 000)	**(1) row**
Net cash flow	(198 000)		75 000	159 000	19 000	**(1)OF row**

Alternative presentation

	Purchase price	Cost of improvement	Sales **W1**	Operating cost **W2**	Other fixed overheads **W3**	Net cash flow
	$	$	$	$	$	$
Year 0	(141 000)**}**	(57 000)**} (1)**				(198 000)
Year 1			624 000	(288 000)	(261 000)	75 000
Year 2			780 000	(360 000)	(261 000)	159 000
Year 3			520 000	(240 000)	(261 000)	19 000
			(1) col	**(1) col**	**(1) col**	**(1) OF col**

W1 12 000 × $52=$624 000, 15 000 × $52=$780 000, 10 000 × $52=$520 000
W2 12 000 × $4.80 × 5=$288 000, 15 000 × $4.80 x5=$360 000, 10 000 × $4.80 x5=$240 000
W3 Depreciation ($141 000 + $57 000)/3=$66 000
$327 000 – $66 000=$261 000

Question	Answer	Marks
2(a)(ii)	**Prepare a statement showing the net cash flow for each year from Year 0 to Year 3 for:** **model IM8** Option 2 – Model IM8	**4**

	Year 0	Year 1	Year 2	Year 3	
	$	$	$	$	
Purchase price	(420 000)				
Sales **W1**		624 000	936 000	520 000	**(1) row**
Operating cost **W2**		(230 400)	(345 600)	(192 000)	**(1) row**
Other fixed overheads **W3**		(215 000)	(215 000)	(215 000)	**(1) row**
Net cash flow	(420 000)	178 600	375 400	113 000	**(1)OF row**

Alternative presentation

	Purchase price	Sales **W1**	Operating cost **W2**	Other fixed overheads **W3**	Net cash flow
	$	$	$	$	$
Year 0	(420 000)**}**				(420 000)
Year 1		624 000	(230 400)	(215 000)	178 600
Year 2		936 000	(345 600)	(215 000)	375 400
Year 3		520 000	(192 000)	(215 000)	113 000
		(1) col	**(1) col**	**(1) col**	**(1) col**

W1 12 000 × $52 = $624 000, 18 000 × $52 = $936 000, 10 000 × $52 = $520 000
W2 12 000 × $4.8 × 4=$230 400, 18 000x$4.8x4=$345 600, 10 000 × $4.8 × 4 = $192 000
W3 Depreciation $420000/3 = $140 000
$355 000-$140 000 = $215 000

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>2(b)</td><td>State <u>two</u> advantages of using the net present value (NPV) method for investment appraisal.

It takes into account cash flow which is more objective than profitability (1)
It takes into account the time value of money (1)
It takes into account all cash flows of an investment/a project (1)

Max 2
Accept other valid responses.</td><td>2</td></tr>
<tr><td>2(c)</td><td>Calculate the NPV for <u>each</u> model of machine.

NPV of IM3
<table>
<tr><th>Year</th><th>Net cash flow
$</th><th>Discount factor</th><th>Present value
$</th><th></th></tr>
<tr><td>0</td><td>(198 000)</td><td>1</td><td>(198 000)</td><td>}</td></tr>
<tr><td>1</td><td>75 000</td><td>0.893</td><td>66 975</td><td>}</td></tr>
<tr><td>2</td><td>159 000</td><td>0.797</td><td>126 723</td><td>}</td></tr>
<tr><td>3</td><td>19 000</td><td>0.712</td><td>13 528</td><td>}(1OF)</td></tr>
<tr><td>NPV</td><td></td><td></td><td>9 226</td><td>(1OF)</td></tr>
</table>
NPV of IM8
<table>
<tr><th>Year</th><th>Net cash flow
$</th><th>Discount factor</th><th>Present value
$</th><th></th></tr>
<tr><td>0</td><td>(420 000)</td><td>1</td><td>(420 000)</td><td>}</td></tr>
<tr><td>1</td><td>178 600</td><td>0.893</td><td>159 490</td><td>}</td></tr>
<tr><td>2</td><td>375 400</td><td>0.797</td><td>299 194</td><td>}</td></tr>
<tr><td>3</td><td>113 000</td><td>0.712</td><td>80 456</td><td>}(1OF)</td></tr>
<tr><td></td><td></td><td></td><td>119 140</td><td>(1OF)</td></tr>
</table></td><td>4</td></tr>
</table>

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Question	Answer	Marks
2(d)	**Advise the directors which model W Limited should choose. Justify your answer.** IM8 has a higher positive NPV than IM3 **(1)** IM8 is more efficient than IM3, i.e. fewer machine hours resulting in lower operating costs **(1)** IM8 has a higher initial outlay **(1)** Opportunity cost has to be considered **(1)** The method of financing IM8 has to be considered **(1)** IM3 has been used before and there is no need for training of workers, but IM8 may require training **(1)** IM8 is a new model and the quality of products may be better **(1)** IM8 has more production capacity to meet urgent sales orders **(1)** **Max 6 for comments**. **Decision supported by a comment (1)** **Accept other valid responses.**	**7**
2(e)	**Calculate the <u>change</u> in NPV of IM3 if the additional cost is incurred.** $ NPV of additional revenue ($18000-$15000) x ($52 – $4.8 × 5) x 0.797 66 948 **(1)** NPV of additional improvement cost $5000 × 0.893 (4 465) **(1)** Increase in NPV 62 483 **(1) OF**	**3**