Cambridge Assessment International Education

Cambridge International AS & A Level

ACCOUNTING **9706/42**

Paper 4 Cost and Management Accounting **May/June 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 May/June 2023 series for most Cambridge IGCSE, Cambridge International A and AS Level and Cambridge Pre-U 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)(i)	**Calculate:** **the net cash flow for <u>each</u> year and in <u>total</u> for the project.** |	\$	\$	| |---|---|---|---| | Year 0 – cost		(400 000)	**(1)** | | Year 1 – grant	142 000		| | Year 1 – fees	64 000	206 000	| | Year 2 – fees		80 000	**(1)** | | Year 3 – fees		96 000	| | Year 4 – fees		112 000	**(1)** | |		94 000	**(1)OF**	**4**
1(a)(ii)	**Calculate:** **the accounting rate of return (ARR) to two decimal places.** $\frac{23\,500}{200\,000}$ **(1of)** **(1)** $\times 100 = 11.75\%$ **(1)OF**	**3**

Question	Answer	Marks
1(b)	**Calculate the net present value (NPV) of the project.**	**4**

Year	Cash flow $	Discount factor	Discounted cash flow $	
0	(400 000)		(400 000)	**(1)**
1	206 000	0.909	187 254	
2	80 000	0.826	66 080	**(1) OF**
3	96 000	0.751	72 096	
4	112 000	0.683	76 496	**(1) OF**
		NPV	1 926	**(1) OF**

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>1(c)</td><td>Calculate the <u>change</u> in NPV which would arise if the extension was also built. Your answer should indicate whether the change is an increase or a decrease.
<table>
<tr><td>Year</td><td>Cash flow
$</td><td>Discount factor</td><td>Discounted cash flow
$</td><td></td></tr>
<tr><td>0</td><td>(420 000)</td><td></td><td>(420 000)</td><td>(1)</td></tr>
<tr><td>1</td><td>206 000</td><td>0.909</td><td>187 254</td><td></td></tr>
<tr><td>2</td><td>84 000 (1)</td><td>0.826</td><td>69 384</td><td></td></tr>
<tr><td>3</td><td>104 000 (1)</td><td>0.751</td><td>78 104</td><td></td></tr>
<tr><td>4</td><td>124 000 (1)</td><td>0.683</td><td>84 692</td><td>(1) OF</td></tr>
<tr><td></td><td></td><td>NPV</td><td>(566)</td><td></td></tr>
</table>
Change in NPV = 1926 – (– 566) = 2492 (1) OF decrease (1) OF</td><td>7</td></tr>
</table>

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>1(c)</td><td>OR
<table>
<tr><td>Year</td><td>Cash flow
$</td><td>Discount factor</td><td>Discounted cash flow
$</td><td></td></tr>
<tr><td>0</td><td>(20 000)</td><td></td><td>(20 000)</td><td>(1)</td></tr>
<tr><td>1</td><td>0</td><td>0.909</td><td>0</td><td></td></tr>
<tr><td>2</td><td>4 000 (1)</td><td>0.826</td><td>3 304</td><td></td></tr>
<tr><td>3</td><td>8 000 (1)</td><td>0.751</td><td>6 008</td><td></td></tr>
<tr><td>4</td><td>12 000 (1)</td><td>0.683</td><td>8 196</td><td>(1) OF</td></tr>
<tr><td></td><td></td><td>Decrease (1) OF
increase in NPV</td><td>(2 492)</td><td>(1) OF</td></tr>
</table></td><td></td></tr>
</table>

Question	Answer	Marks
1(d)	**Advise Hiram whether or not he should agree to build the sea wall and the extension. Justify your answer.** **Max 6 marks** for comments **1 mark** for decision supported by a comment. Building the sea wall alone has a positive NPV **(1).** But when the extension is added to the project the total NPV becomes negative **(1).** The ARR of the sea wall alone is greater than Hiram's cost of capital **(1).** But when the extension is added the ARR will change **(1).** There is considerable risk involved in this project **(1)** as the figures are based on estimates **(1).** The existing residents may change their minds and not pay their annual fees **(1)**. The new houses may not be built or their owners may not want to pay an annual fee **(1).** Hiram may have a desire to help the community such that he would take on a project at a loss (**1).** He may have been chosen by the village because he already has links with it/has family there/lives there himself **(1).** **Accept other valid responses.**	**7**

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Question	Answer	Marks
2(a)	**Complete the following statement to reconcile the flexible budgeted profit with the actual profit for April 2023.**	**15**

	$	$	$	
Budgeted profit			25 500	
Variance	Favourable	Adverse		
Sales price (190–165) × 750		18 750		**(2)**
Materials price (18–15) × 3150	9 450			**(2)**
Materials usage (4–4.2) × 13500		2 700		**(2)**
Labour rate (12–10.5) × 2550	3 825			**(2)**
Labour efficiency (3–3.4) × 9000		3 600		**(2)**
Fixed overhead expenditure (48 000–46 200)	1 800			**(2)**
Fixed overhead volume (48 000–36 000)		12 000		**(2)**
	15 075	37 050	(21 975)	
Actual profit			3 525	**(1)**

Marks for variances – **(1)** for amount and **(1)** for favourable / adverse

Question	Answer	Marks
2(b)	**Explain <u>one</u> possible reason for the materials price variance.** The market price for the material had fallen **(1)** because there is lower demand for non recyclable material **(1).** **NOT** lower quality material **Accept other valid responses.**	**2**
2(c)	**Explain <u>one</u> possible reason for the labour efficiency variance.** More hours have been worked **(1)** because the hourly rate had been cut / the workers were demotivated **(1).** **NOT** less experienced workers had been hired. **Accept other valid responses.**	**2**

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Question	Answer	Marks
2(d)	**Advise the directors whether or not they should replace the existing material used in production with a recyclable material. The recyclable material would cost $24 per kilo. Justify your answer and support it with relevant calculations.** **Max 2 marks** for calculations **Max 3 marks** for comments **1 mark** for decision supported by a comment. With the cost of the new material the profit from the flexible budget statement would be only $7500/fall by $18 000 (750 × 4 × 6) **(1)** and the actual profit would be a loss of $24 825/fall by $28 350 (750 × 4.2 × 9) **(1).** The new material is more expensive **(1).** If the company does not make the change it may struggle to continue production / make sales **(1).** If the product became more popular again the selling price / sales could increase **(1).** Costs of advertising would have to increase to ensure that customers knew of the change **(1).** There may be factors other than the recyclability of the material affecting customer behaviour **(1).** Consideration would have to be paid to the selling price of competitors' products **(1).** **Accept other valid responses.**	**6**

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