

Cambridge International AS & A Level

ACCOUNTING

9706/41

Paper 4 Cost and Management Accounting

October/November 2024

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 2024 series for most Cambridge IGCSE, Cambridge International A and AS Level components, and some Cambridge O Level components.

This document consists of **12** printed pages.

PUBLISHED**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 descriptions 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.

PUBLISHED**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.

PUBLISHED**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).

PUBLISHED**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.

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

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)	<p>Explain <u>two</u> advantages of preparing a budget.</p> <p>It sets a target for the departmental managers to achieve. (1) Every manager is responsible for the target set for each of them and they will strive to achieve the target. (1) This will motivate the employees. (1) They have the sense of direction, and they know what is expected from them. (1) It is good for planning. (1) It facilitates the planning for resources and finance. (1)</p> <p>Max 2 advantages, 2 marks each Accept other valid responses.</p>	4																									
1(b)(i)	<p>Prepare the following budgets for T Limited for the months of <u>April</u>, <u>May</u> and <u>June</u>.</p> <p>production budget (in units)</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%; text-align: center;">April</th> <th style="width: 10%; text-align: center;">May</th> <th style="width: 10%; text-align: center;">June</th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>Closing inventory (25% of next month's sales)</td> <td style="text-align: center;">305</td> <td style="text-align: center;">275</td> <td style="text-align: center;">300</td> <td style="text-align: right;">(1) row</td> </tr> <tr> <td>Sales</td> <td style="text-align: center;">1 280</td> <td style="text-align: center;">1 220</td> <td style="text-align: center;">1 100</td> <td style="text-align: right;">(1) row</td> </tr> <tr> <td>Opening inventory (25% of current month's sales)</td> <td style="text-align: center;"><u>(320)</u></td> <td style="text-align: center;"><u>(305)</u></td> <td style="text-align: center;"><u>(275)</u></td> <td style="text-align: right;">(1) row</td> </tr> <tr> <td>Production (in units)</td> <td style="text-align: center;"><u>1 265</u></td> <td style="text-align: center;"><u>1 190</u></td> <td style="text-align: center;"><u>1 125</u></td> <td style="text-align: right;">(1) OF row</td> </tr> </tbody> </table>		April	May	June		Closing inventory (25% of next month's sales)	305	275	300	(1) row	Sales	1 280	1 220	1 100	(1) row	Opening inventory (25% of current month's sales)	<u>(320)</u>	<u>(305)</u>	<u>(275)</u>	(1) row	Production (in units)	<u>1 265</u>	<u>1 190</u>	<u>1 125</u>	(1) OF row	4
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1(b)(ii)	<p>Prepare the following budgets for the months of <u>April</u>, <u>May</u> and <u>June</u>.</p> <p>purchases budget (in kilos and dollars)</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 15%; text-align: center;">April</th> <th style="width: 15%; text-align: center;">May</th> <th style="width: 10%; text-align: center;">June</th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>Closing inventory (10% of next month's production need)</td> <td style="text-align: right;">476}</td> <td style="text-align: right;">450}{(1)O F</td> <td style="text-align: right;">474</td> <td style="text-align: right;">W1 (1)</td> </tr> <tr> <td>Production required (4 kilos per unit produced in current month)</td> <td style="text-align: right;">5 060</td> <td style="text-align: right;">4 760</td> <td style="text-align: right;">4 500</td> <td style="text-align: right;">(1)OF row</td> </tr> <tr> <td>Opening inventory (10% of current month's production need)</td> <td style="text-align: right;">(506)</td> <td style="text-align: right;">(476)</td> <td style="text-align: right;">(450)</td> <td style="text-align: right;">(1) OF row</td> </tr> <tr> <td>Total direct materials purchased (in kilos)</td> <td style="text-align: right; border-top: 1px solid black;">5 030</td> <td style="text-align: right; border-top: 1px solid black;">4 734</td> <td style="text-align: right; border-top: 1px solid black;">4 524</td> <td style="text-align: right;">(1)OF row</td> </tr> <tr> <td>Total purchases (\$10 per kilo)</td> <td style="text-align: right; border-top: 1px solid black;">\$50 300</td> <td style="text-align: right; border-top: 1px solid black;">\$47 340</td> <td style="text-align: right; border-top: 1px solid black;">\$45 240</td> <td style="text-align: right;">(1)OF row</td> </tr> </tbody> </table> <p>W1 July's production $1\,200 + (25\% \times 1\,140) - (25\% \times 1\,200) = 1\,185$ units, $1\,185 \times 4 \times 10\% = 474$</p>		April	May	June		Closing inventory (10% of next month's production need)	476}	450}{(1)O F	474	W1 (1)	Production required (4 kilos per unit produced in current month)	5 060	4 760	4 500	(1)OF row	Opening inventory (10% of current month's production need)	(506)	(476)	(450)	(1) OF row	Total direct materials purchased (in kilos)	5 030	4 734	4 524	(1)OF row	Total purchases (\$10 per kilo)	\$50 300	\$47 340	\$45 240	(1)OF row	6
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1(c)	<p>Prepare a trade receivables budget for the month of <u>June</u>, showing the opening and closing balances.</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 15%; text-align: center;">\$</th> <th style="width: 10%;"></th> <th style="width: 15%;"></th> </tr> </thead> <tbody> <tr> <td>Balance b/d ($1\,280 \times \\$200 \times 60\%$) + ($1\,220 \times \\200)</td> <td style="text-align: right;">397 600</td> <td></td> <td style="text-align: right;">(1)</td> </tr> <tr> <td>Sales for the month ($1\,100 \times \\$200$)</td> <td style="text-align: right;">220 000</td> <td></td> <td></td> </tr> <tr> <td>Discount allowed ($1\,220 \times \\$200 \times 3\% \times 40\%$)</td> <td style="text-align: right;">(2 928)</td> <td></td> <td style="text-align: right;">(1)</td> </tr> <tr> <td>Receipts ($1\,280 \times \\$200 \times 60\%$) + ($1\,220 \times \\$200 \times 97\% \times 40\%$)</td> <td style="text-align: right; border-top: 1px solid black;">(248 272)</td> <td></td> <td style="text-align: right;">(1)</td> </tr> <tr> <td>Balance c/d ($1\,220 \times \\$200 \times 60\%$) + ($1\,100 \times \\200)</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 3px double black;">366 400</td> <td></td> <td style="text-align: right;">(1) OF</td> </tr> </tbody> </table>		\$			Balance b/d ($1\,280 \times \$200 \times 60\%$) + ($1\,220 \times \200)	397 600		(1)	Sales for the month ($1\,100 \times \$200$)	220 000			Discount allowed ($1\,220 \times \$200 \times 3\% \times 40\%$)	(2 928)		(1)	Receipts ($1\,280 \times \$200 \times 60\%$) + ($1\,220 \times \$200 \times 97\% \times 40\%$)	(248 272)		(1)	Balance c/d ($1\,220 \times \$200 \times 60\%$) + ($1\,100 \times \200)	366 400		(1) OF	4						
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Question	Answer	Marks
1(d)	<p>Advise the directors which option they should choose. Justify your answer.</p> <p>Option 1 Reduced production cannot satisfy the customers and may lose the loyal customers (1) The reputation of the company may be jeopardised (1) Reduced production may leave some capacity idle (1) The shortage in supply is only temporary (1)</p> <p>Option 2 A new supplier may not be reliable (1) The quality of direct materials may not be guaranteed (1) The increased cost may be acceptable if a gross profit is achieved / there may be a fall in profit (1) T Limited may change the inventory policy to increase inventory in advance (1)</p> <p>Max 6 for comments</p> <p>Decision supported with a comment (1)</p> <p>Accept other valid responses.</p>	7
2(a)	<p>Explain how the internal rate of return (IRR) can be used to make a capital investment decision.</p> <p>Internal rate of return (IRR) considers the time value of money (1) which gives a rate of discount that yields a zero net present value / the present value of total cash inflows equal to the present value of total cash outflows. (1) When capital investment has an IRR above the cost of capital rate, it will give a positive net present value (1) and the capital investment should be accepted. (1) If there are two mutually exclusively capital investments and both give an IRR above the cost of capital rate, the capital investment with higher IRR will be chosen. (1)</p> <p>Max 4 Accept other valid responses.</p>	4

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2(b)(i)	<p>Calculate:</p> <p>the net present value (NPV)</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Year</th> <th style="text-align: right;">Sales \$</th> <th style="text-align: right;">Machine \$</th> <th style="text-align: right;">Direct materials \$</th> <th style="text-align: right;">Direct Labour \$</th> <th style="text-align: right;">Fixed overhead \$</th> <th style="text-align: right;">Net cash \$</th> <th style="text-align: right;">Discount 10% \$</th> <th style="text-align: right;">Present value \$</th> </tr> </thead> <tbody> <tr> <td>0</td> <td></td> <td style="text-align: right;">(180 000)</td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: right;">1</td> <td style="text-align: right;">(180 000) (1)</td> </tr> <tr> <td>1</td> <td style="text-align: right;">200 000</td> <td></td> <td style="text-align: right;">30 000</td> <td style="text-align: right;">48 000</td> <td style="text-align: right;">90 000</td> <td style="text-align: right;">32 000</td> <td style="text-align: right;">} 0.909</td> <td style="text-align: right;">29 088 }*</td> </tr> <tr> <td>2</td> <td style="text-align: right;">300 000</td> <td></td> <td style="text-align: right;">45 000</td> <td style="text-align: right;">72 000</td> <td style="text-align: right;">90 000</td> <td style="text-align: right;">93 000</td> <td style="text-align: right;">} (1) 0.826</td> <td style="text-align: right;">76 818 } (1)OF</td> </tr> <tr> <td>3</td> <td style="text-align: right;">400 000</td> <td></td> <td style="text-align: right;">60 000</td> <td style="text-align: right;">96 000</td> <td style="text-align: right;">90 000</td> <td style="text-align: right;">154 000</td> <td style="text-align: right;">}** 0.751</td> <td style="text-align: right;">115 654 }***</td> </tr> <tr> <td>4</td> <td style="text-align: right;"><u>100 000</u></td> <td></td> <td style="text-align: right;"><u>15 000</u></td> <td style="text-align: right;"><u>24 000</u></td> <td style="text-align: right;"><u>90 000</u></td> <td style="text-align: right;"><u>(29 000)</u></td> <td style="text-align: right;">}**(1) 0.683</td> <td style="text-align: right;"><u>(19 807) F</u></td> </tr> <tr> <td></td> <td style="text-align: right;"><u>1 000 000</u></td> <td style="text-align: right;"><u>(180 000)</u></td> <td style="text-align: right;"><u>150 000</u></td> <td style="text-align: right;"><u>240 000</u></td> <td style="text-align: right;"><u>360 000</u></td> <td style="text-align: right;"><u>250 000</u></td> <td></td> <td style="text-align: right;">NPV <u>21 753</u> (1)OF</td> </tr> </tbody> </table>	Year	Sales \$	Machine \$	Direct materials \$	Direct Labour \$	Fixed overhead \$	Net cash \$	Discount 10% \$	Present value \$	0		(180 000)					1	(180 000) (1)	1	200 000		30 000	48 000	90 000	32 000	} 0.909	29 088 }*	2	300 000		45 000	72 000	90 000	93 000	} (1) 0.826	76 818 } (1)OF	3	400 000		60 000	96 000	90 000	154 000	}** 0.751	115 654 }***	4	<u>100 000</u>		<u>15 000</u>	<u>24 000</u>	<u>90 000</u>	<u>(29 000)</u>	}**(1) 0.683	<u>(19 807) F</u>		<u>1 000 000</u>	<u>(180 000)</u>	<u>150 000</u>	<u>240 000</u>	<u>360 000</u>	<u>250 000</u>		NPV <u>21 753</u> (1)OF	6
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2(b)(ii)	<p>Calculate:</p> <p>the internal rate of return (IRR)</p> <p>10% + [\$21 753 / (\$21 753 + \$611)] (1)OF × (16% – 10%) (1) = 15.84% (1)OF</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Year</th> <th style="text-align: right;">Net cash \$</th> <th style="text-align: right;">Discount 16%</th> <th style="text-align: right;">\$</th> </tr> </thead> <tbody> <tr> <td>0</td> <td style="text-align: right;">(180 000)</td> <td style="text-align: right;">1</td> <td style="text-align: right;">(180 000)</td> </tr> <tr> <td>1</td> <td style="text-align: right;">32 000</td> <td style="text-align: right;">0.862</td> <td style="text-align: right;">27 584</td> </tr> <tr> <td>2</td> <td style="text-align: right;">93 000</td> <td style="text-align: right;">0.743</td> <td style="text-align: right;">69 099</td> </tr> <tr> <td>3</td> <td style="text-align: right;">154 000</td> <td style="text-align: right;">0.641</td> <td style="text-align: right;">98 714</td> </tr> <tr> <td>4</td> <td style="text-align: right;">(29 000)</td> <td style="text-align: right;">0.552</td> <td style="text-align: right;"><u>(16 008)</u></td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: right;"><u>(611) (1)OF</u></td> </tr> </tbody> </table>	Year	Net cash \$	Discount 16%	\$	0	(180 000)	1	(180 000)	1	32 000	0.862	27 584	2	93 000	0.743	69 099	3	154 000	0.641	98 714	4	(29 000)	0.552	<u>(16 008)</u>				<u>(611) (1)OF</u>	4																																			
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Question	Answer	Marks
2(b)(iii)	<p>Calculate:</p> <p>the accounting rate of return (ARR)</p> <p>Total profit \$250 000 – \$180 000 = \$70 000 (1) Average profit \$70 000/4 = \$17 500 (1)OF Accounting rate of return \$17 500/(\$180 000÷2) (1) = 19.44% (1)OF</p>	4
2(c)	<p>Advise the directors which machine they should buy. Justify your answer.</p> <p>Machine A (Max 3) The direct cost of Machine A is lower (1) The average profit of Machine A is higher than Machine B (A \$17 500; B \$80 000 × 20.94% = \$16 752) (1) The after-sale service of local company should be better than overseas company (1) The total profit of Machine A is higher (1) The total net cash inflow of Machine A is higher (A \$250 000; B \$16 752 × 4 + \$160 000 = \$227 008) (1)</p> <p>Machine B (Max 3) Machine B has a higher NPV (1) Machine B has a higher IRR (1) Machine B has a higher ARR (1) The initial cost of Machine B is lower (1) Directors should also consider other factors such as import duty, time of delivery and foreign exchange (1)</p> <p>Decision supported with a comment (1) Accept other valid responses</p>	7