



Cambridge International AS & A Level

ACCOUNTING

9706/32

Paper 3 Structured Questions

May/June 2022

MARK SCHEME

Maximum Mark: 150

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 2022 series for most Cambridge IGCSE, Cambridge International A and AS Level and Cambridge Pre-U components, and some Cambridge O Level components.

This document consists of **19** 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 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.

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

Question	Answer	Marks
1(a)	Helps the club to ensure that it has appropriate plans / strategies (1) Provides clarity to potential members as to the purpose of the club (1) Accept other valid responses.	2
1(b)	This is an application of the accrual / matching concept. (1) 3-month's tuition of \$3000 covering October to December 2021 is recognised in the income and expenditure account for the year ended 31 December 2021 (1) The remaining \$5000 is shown under the current liability section of the statement of financial position at 31 December 2021 (1) because this is deferred income / refundable (1)	4

Question	Answer	Marks																																																
1(c)	Income and expenditure account for the year ended 31 December 2021 <table><thead><tr><th></th><th>\$</th><th>\$</th><th></th></tr></thead><tbody><tr><td>Subscription fee W1</td><td></td><td>49 100</td><td>(4)</td></tr><tr><td>Tuition fees W2</td><td></td><td>3 000</td><td>(1)</td></tr><tr><td>Profit from performances W3</td><td></td><td><u>2 700</u></td><td>(1)</td></tr><tr><td></td><td></td><td>54 800</td><td></td></tr><tr><td>Administrative expenses W4</td><td>32 900</td><td></td><td>(1)</td></tr><tr><td>Heating and lighting W5</td><td>11 000</td><td></td><td>(1)</td></tr><tr><td>Building maintenance</td><td>4 600</td><td></td><td></td></tr><tr><td>Depreciation – Building W6</td><td>21 600</td><td></td><td>(1)</td></tr><tr><td>Depreciation – Equipment W7</td><td><u>8 200</u></td><td></td><td>(2)</td></tr><tr><td></td><td></td><td><u>78 300</u></td><td></td></tr><tr><td>Surplus/Deficit</td><td></td><td><u>(23 500)</u></td><td>(1)OF</td></tr></tbody></table> W1 \$40 400 + \$2700(1) + \$7200(1) – \$1200 (1) = \$49 100 (1)OF W2 (\$8000 × 3/8) = \$3000(1) W3 (\$14 200 – \$11 500) = \$2700 (1) W4 (\$30 100 – \$6200 + \$9000) = \$32 900(1) W5 (\$13 200 – \$700 – \$1500)= \$11 000(1) W6 (\$200 000 + \$16 000) × 10% = \$21600(1) W7 (\$120 000 + \$6000 (1) – \$85 000) × 20% = \$8200 (1)		\$	\$		Subscription fee W1		49 100	(4)	Tuition fees W2		3 000	(1)	Profit from performances W3		<u>2 700</u>	(1)			54 800		Administrative expenses W4	32 900		(1)	Heating and lighting W5	11 000		(1)	Building maintenance	4 600			Depreciation – Building W6	21 600		(1)	Depreciation – Equipment W7	<u>8 200</u>		(2)			<u>78 300</u>		Surplus/Deficit		<u>(23 500)</u>	(1)OF	12
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Question	Answer	Marks
1(d)	For (Max 3) The club can earn more income – students’ fees (1) Available space of building can be utilised at other times (1) Student members can later become ordinary members and this will increase revenue in the future (1) Students from poor families can afford the tuition fee (1) The image of the club can be promoted (1) Against (Max 3) The plan may not meet the existing objective of the club (1) The club may be in a financially risky position as its bank balance is low. (1) The club will have to raise extra funds for the expansion. (1) There may not be enough qualified volunteers to carry out the work. (1) The other providers might improve their offerings. (1) 1 mark for decision Accept other valid answers.	7

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Question	Answer	Marks																		
2(a)	\$ <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Profit from operations</td><td style="width: 20%; text-align: right;">98 000</td><td style="width: 20%; text-align: right;">(1)</td></tr> <tr> <td>Debenture interest W1</td><td style="text-align: right;">(4 000)</td><td style="text-align: right;">(1)</td></tr> <tr> <td>Depreciation on property overcharged W2</td><td style="text-align: right;">2 750</td><td style="text-align: right;">(2)</td></tr> <tr> <td>Depreciation on non-current asset overcharged</td><td style="text-align: right;">14 000</td><td style="text-align: right;">(1)</td></tr> <tr> <td>Inventory overvalued W3</td><td style="text-align: right;"><u>(1 100)</u></td><td style="text-align: right;">(2)</td></tr> <tr> <td>Profit for the year</td><td style="text-align: right;"><u>109 650</u></td><td style="text-align: right;">(1)OF</td></tr> </table> W1 $\\$200\,000 \times 6\% \times 4/12 = \\4000(1) W2 Depreciation based on \$432 000 $\\$432\,000 \times 1/36 = \\$12\,000$(1) Depreciation based on \$296 000 $\\$296\,000 \times 1/32 = (\\$9250)$ (1) $\\$12\,000 - \\$9250 = \\$2750$ W3 Cost $\\$28\,000 \times 100/160 = (\\$17\,500)$(1) Net realisable value $\\$28\,000 \times 80\% - \\$6000 = \\$16\,400$(1) $\\$16\,400 - \\$17\,500 = (\\$1100)$ Accept alternative approach to decrease arising as a result of a revaluation and include revaluation loss as an expense.	Profit from operations	98 000	(1)	Debenture interest W1	(4 000)	(1)	Depreciation on property overcharged W2	2 750	(2)	Depreciation on non-current asset overcharged	14 000	(1)	Inventory overvalued W3	<u>(1 100)</u>	(2)	Profit for the year	<u>109 650</u>	(1)OF	8
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2(b)(i)	Item 3 • IAS 8 Accounting policies, changes in accounting estimates and errors (1) • \$20 000 is adjusted against the retained earnings at 1 January 2021 (error of prior period) (1) and \$14 000 is adjusted against the current year (2021) profit from operations (1)	3																		
2(b)(ii)	Item 4 • IAS 2 Inventories (1) • Inventory is valued at the lower of cost and net realisable value (1) • The net realisable value [\$16 400] is therefore the valuation. (1) Accept OF comments	3																		

Question	Answer					Marks																																																						
2(c)	Bonus issue involves the use of reserves (1) whereas a rights issue results in the company receiving cash. (1)					2																																																						
2(d)	<table><thead><tr><th></th><th>Share capital \$</th><th>Share premium \$</th><th>Revaluation reserve \$</th><th>Retained earnings \$</th><th></th></tr></thead><tbody><tr><td>At 1 January 2021</td><td>500 000</td><td>86 000</td><td>72 000</td><td>212 000</td><td>(1) W1</td></tr><tr><td>2020 final dividend paid</td><td></td><td></td><td></td><td>(40 000)</td><td>(1) W2</td></tr><tr><td>Bonus issue</td><td>50 000</td><td>(50 000)</td><td></td><td></td><td>(1) row</td></tr><tr><td>New issue</td><td>80 000</td><td>64 000</td><td></td><td></td><td>(1) row</td></tr><tr><td>Interim dividend</td><td></td><td></td><td></td><td>(11 000)</td><td>(1) W3</td></tr><tr><td>Profit for the year</td><td></td><td></td><td></td><td>109 650</td><td>(1) OF</td></tr><tr><td>Revaluation loss</td><td></td><td></td><td>(72 000)</td><td>(16 000)</td><td>(1)</td></tr><tr><td>At 31 December 2021</td><td><u>630 000</u></td><td><u>100 000</u></td><td><u>0</u></td><td><u>254 650</u></td><td>(1) OF</td></tr></tbody></table> W1 \$192 000 + \$20 000 = \$212 000 W2 500 000 × \$0.08 = \$40 000 W3 (500 000 + 50000) × \$0.02=\$11 000 Accept alternative treatment of revaluation loss						Share capital \$	Share premium \$	Revaluation reserve \$	Retained earnings \$		At 1 January 2021	500 000	86 000	72 000	212 000	(1) W1	2020 final dividend paid				(40 000)	(1) W2	Bonus issue	50 000	(50 000)			(1) row	New issue	80 000	64 000			(1) row	Interim dividend				(11 000)	(1) W3	Profit for the year				109 650	(1) OF	Revaluation loss			(72 000)	(16 000)	(1)	At 31 December 2021	<u>630 000</u>	<u>100 000</u>	<u>0</u>	<u>254 650</u>	(1) OF	9
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Question	Answer	Marks
3(a)	Comparison of performance with another company (1) in the same trade in the same year. (1) Comparison of performance with previous years (1) of the same business. (1) To make a decision (1) on whether to buy the shares. (1) Max 2 points × 2 marks (1 mark for each identification plus 1 further mark for explanation.) Accept other valid answers.	4
3(b)(i)	Earnings per share \$114 000 / 600 000 = \$0.19 (1) Price earnings ratio \$2.4/\$0.19 = 12.63 (1) OF	2

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Question	Answer	Marks
3(b)(ii)	Dividend per share $\$90\,000/600\,000 = \0.15 (1) Dividend yield $(\$0.15/\$2.4) \times 100 = 6.25\%$ (1)OF	2
3(b)(iii)	Debenture interest $\$150\,000 \times 8\% = \$12\,000$ (1) Income gearing $(\$12\,000/\$126\,000 \text{ OF}) \times 100 = 9.52\%$ (1)OF	2
3(b)(iv)	\$ Ordinary share capital Retained earnings $(\\$38\,000 + \\$114\,000 - \\$90\,000)$ General reserve Revaluation reserve Equity at 31 December 2021 600 000 62 000 75 000 80 000 817 000 (1) Gearing ratio $\$150\,000 \text{ (1)} / (\$150\,000 + \$817\,000) \text{ (1)OF} \times 100 = 15.51\%$ (1)OF	4
3(b)(v)	Return on capital employed $\$126\,000 \text{ (1)} / \$967\,000 \times 100 = 13.03\%$ (1)OF	2
3(c)	The dividend can be paid from the general reserve (1) as profits are realised. (1) The dividend may not be paid from the revaluation reserve (1) as these profits are not realised. (1) Profits are treated as realised only when realised in the form of cash or other assets. (1) Max 4	4

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Question	Answer	Marks
3(d)	Debenture increases the gearing ratio / gearing ratio is still very low (1) Debenture increases the interest expenses and reduces profit (1) Debenture has to be repaid / share capital is fixed capital (1) Debentures may need security (1) Share dividends are discretionary / debenture interest must be paid (1) The control of existing shareholders may be diluted (1) The project yields a return of 24% (\$24 000/100 000) which is higher than the 8% interest, the shareholders will benefit. (1) 1 mark for decision. Accept other valid answers.	5

Question	Answer	Marks																																	
4(a)	<table> <tr> <td></td><td>\$</td><td></td></tr> <tr> <td>Total consideration</td><td>770 000</td><td>(1)</td></tr> <tr> <td>Motor vehicle-Alan</td><td>18 000</td><td>(1)</td></tr> <tr> <td>Trade payables discount</td><td><u>1 000</u></td><td>(1)</td></tr> <tr> <td></td><td>789 000</td><td></td></tr> <tr> <td>Non-current assets</td><td>(565 000)</td><td>(1)</td></tr> <tr> <td>Inventory</td><td>(75 000)</td><td>}</td></tr> <tr> <td>Trade receivables</td><td><u>(93 000)</u></td><td>}(1)</td></tr> <tr> <td>Profit on realisation</td><td><u>56 000</u></td><td></td></tr> <tr> <td>Alan $\\$56\,000 \times \frac{3}{5}$</td><td>33 600</td><td></td></tr> <tr> <td>Bobby $\\$56\,000 \times \frac{2}{5}$</td><td>22 400</td><td>(1)OF</td></tr> </table>		\$		Total consideration	770 000	(1)	Motor vehicle-Alan	18 000	(1)	Trade payables discount	<u>1 000</u>	(1)		789 000		Non-current assets	(565 000)	(1)	Inventory	(75 000)	}	Trade receivables	<u>(93 000)</u>	}(1)	Profit on realisation	<u>56 000</u>		Alan $\$56\,000 \times \frac{3}{5}$	33 600		Bobby $\$56\,000 \times \frac{2}{5}$	22 400	(1)OF	6
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4(b)	Capital account <table><tr><td></td><td>Alan</td><td></td><td>Bobby</td><td></td><td>Alan</td><td></td><td>Bobby</td></tr><tr><td></td><td>\$</td><td></td><td>\$</td><td></td><td>\$</td><td></td><td>\$</td></tr><tr><td>Current account</td><td>6 000</td><td>*</td><td></td><td>Balance b/d</td><td>400 000</td><td></td><td>320 000</td></tr><tr><td>Motor vehicle</td><td>18 000</td><td>(1)</td><td></td><td>Current account</td><td></td><td></td><td>25 000</td></tr><tr><td>MM Limited</td><td>385 000</td><td>}</td><td>385 000</td><td>}(1)</td><td>Profit on realisation</td><td>33 600</td><td>22 400</td></tr><tr><td>Bank</td><td>24 600</td><td></td><td></td><td>Bank</td><td></td><td></td><td>17 600</td></tr><tr><td></td><td><u>433 600</u></td><td></td><td><u>385 000</u></td><td></td><td><u>433 600</u></td><td></td><td><u>385 000</u></td></tr></table>		Alan		Bobby		Alan		Bobby		\$		\$		\$		\$	Current account	6 000	*		Balance b/d	400 000		320 000	Motor vehicle	18 000	(1)		Current account			25 000	MM Limited	385 000	}	385 000	}(1)	Profit on realisation	33 600	22 400	Bank	24 600			Bank			17 600		<u>433 600</u>		<u>385 000</u>		<u>433 600</u>		<u>385 000</u>	5
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4(d)	An intangible asset is an identifiable non-monetary asset (1) without physical substance (1)	2																																																								
4(e)	MM Limited pays \$40 000 above the total value of tangible assets acquired as purchased goodwill. (1) Purchase goodwill is the excess of consideration over the fair value of net assets acquired. (1) Goodwill will bring future economic benefit to MM Limited. (1) Goodwill is created overtime through good reputation (1) because of high quality product (1), location (1), good relationship with customers/loyal customer (1), and a team of competent and efficient staff (1) Accept other valid answers. Max 6	6																																																								

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Question	Answer	Marks
4(f)	For The company will receive future benefits in excess of \$40 000 paid (1) Against It is difficult to accurately value the goodwill (1) 1 mark for decision Accept other valid answers.	3

Question	Answer	Marks
5(a)	To identify short/long term cash needs because of a cash deficit (1) so that management can take action to avoid the problems by raising finance (1) or If there is a short/long term cash surplus (1) management can plan to utilise cash surplus to make investment or make prompt payment to supplier to enjoy cash discount (1) 1 mark for basic statement + 1 mark for development	2

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Question	Answer			Marks
5(b)	June	July	August	11
	\$	\$	\$	
Opening balance	<u>33 000</u>	<u>63 856</u>	<u>24 280</u>	
Receipts from customers	<u>234 000</u>	<u>210 000</u>	<u>195 000</u> (1) row	
Payments to suppliers				
Current month purchases W1	81 144 (1)	89 376 (1)	84 672 (1)	
Last month purchases W2	52 000 (1)	55 200 (1)	60 800 (1)	
Wages	50 000	55 000	55 000 (1) row	
Overheads	20 000	20 000	20 000 (1) row	
Rent		30 000	(1)	
	<u>203 144</u>	<u>249 576</u>	<u>220 472</u>	
Closing balance	<u>63 856</u>	<u>24 280</u>	<u>(1 192)</u> (1)OF	
W1 $\$207\,000 \times (100/150) \times 60\% \times 98\% = \$81\,144$, $\$228\,000 \times (100/150) \times 60\% \times 98\% = \$89\,376$, $\$216\,000 \times (100/150) \times 60\% \times 98\% = \$84\,672$				
W2 $\$195\,000 \times (100/150) \times 40\% = \$52\,000$, $\$207\,000 \times (100/150) \times 40\% = \$55\,200$, $\$228\,000 \times (100/150) \times 40\% = \$60\,800$				

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Question	Answer	Marks																																													
5(c)	Budgeted income statement for 3 months ending on 31 August 2022 <table><tr><td></td><td>\$</td><td>\$</td><td></td></tr><tr><td>Sales</td><td></td><td>630 000</td><td></td></tr><tr><td>Cost of sales</td><td></td><td><u>420 000</u></td><td></td></tr><tr><td>Gross profit</td><td></td><td>210 000</td><td>(1)</td></tr><tr><td>Discount received W1</td><td></td><td>5 208</td><td>(1)</td></tr><tr><td>Wages</td><td>160 000</td><td>}</td><td></td></tr><tr><td>Overheads</td><td>60 000</td><td>}(1)</td><td></td></tr><tr><td>Rent</td><td><u>15 000</u></td><td>(1)</td><td></td></tr><tr><td></td><td></td><td><u>235 000</u></td><td></td></tr><tr><td>Net loss for the period</td><td></td><td><u>(19 792)</u></td><td>(1)OF</td></tr></table> W1 (\$207 000+\$228 000+\$216 000)x(100/150)x60%x2%=\$5 208		\$	\$		Sales		630 000		Cost of sales		<u>420 000</u>		Gross profit		210 000	(1)	Discount received W1		5 208	(1)	Wages	160 000	}		Overheads	60 000	}(1)		Rent	<u>15 000</u>	(1)				<u>235 000</u>		Net loss for the period		<u>(19 792)</u>	(1)OF	5					
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5(d)	<table><tr><td></td><td>June</td><td>July</td><td>August</td><td></td></tr><tr><td></td><td>\$</td><td>\$</td><td>\$</td><td></td></tr><tr><td>April sales</td><td>234 000</td><td></td><td></td><td></td></tr><tr><td>May sales</td><td>101 850</td><td>105 000</td><td></td><td></td></tr><tr><td>June sales</td><td></td><td>94 575</td><td>97 500</td><td></td></tr><tr><td>July sales</td><td></td><td></td><td><u>100 395</u></td><td></td></tr><tr><td>Total receipts under new policy</td><td><u>335 850</u></td><td><u>199 575</u></td><td><u>197 895</u></td><td>(1)</td></tr><tr><td>Receipts before new policy</td><td><u>234 000</u></td><td><u>210 000</u></td><td><u>195 000</u></td><td>(1)OF row</td></tr><tr><td>Net increase in cash inflows</td><td><u>101 850</u></td><td><u>(10 425)</u></td><td><u>2 895</u></td><td>(1)OF row</td></tr></table>		June	July	August			\$	\$	\$		April sales	234 000				May sales	101 850	105 000			June sales		94 575	97 500		July sales			<u>100 395</u>		Total receipts under new policy	<u>335 850</u>	<u>199 575</u>	<u>197 895</u>	(1)	Receipts before new policy	<u>234 000</u>	<u>210 000</u>	<u>195 000</u>	(1)OF row	Net increase in cash inflows	<u>101 850</u>	<u>(10 425)</u>	<u>2 895</u>	(1)OF row	5
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5(e)	Discount allowed for the new policy = $[(\\$210\,000 + \\$195\,000 + \\$207\,000) \div 2] \times 3\%$= \$9 180 (1). Discount allowed / reduction of profit (1) by \$9 180	2																																													

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Question	Answer					Marks																																			
6(a)	<table><thead><tr><th></th><th>Sales \$</th><th>Variable cost \$</th><th>Fixed cost \$</th><th>Net \$</th></tr></thead><tbody><tr><td>Year 0</td><td></td><td></td><td></td><td>(160 000)</td></tr><tr><td>Year 1</td><td>140 000</td><td>50 000</td><td>50 000</td><td>40 000 (1)</td></tr><tr><td>Year 2</td><td>210 000</td><td>75 000</td><td>60 000</td><td>75 000 (1)</td></tr><tr><td>Year 3</td><td>238 000</td><td>85 000</td><td>70 000</td><td>83 000 (1)</td></tr><tr><td>Year 4</td><td>117 600</td><td>42 000</td><td>50 000</td><td>25 600 (1)</td></tr></tbody></table>						Sales \$	Variable cost \$	Fixed cost \$	Net \$	Year 0				(160 000)	Year 1	140 000	50 000	50 000	40 000 (1)	Year 2	210 000	75 000	60 000	75 000 (1)	Year 3	238 000	85 000	70 000	83 000 (1)	Year 4	117 600	42 000	50 000	25 600 (1)	4					
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Question	Answer	Marks																																								
6(c)	The net present value is positive (1) The IRR is higher than the cost of capital (1) Max 2 for comments 1 mark for decision Accept OF comments	3																																								
6(d)	Investment appraisal is based on the assumptions used to forecast, i.e. sales volume, selling price and cost. (1) These assumptions are subject to uncertainty and risk. (1) Sensitivity analysis is a 'what if' analysis, calculating the effects of changes in these assumptions. (1)	3																																								
6(e)	Units produced and sold each year $25\,200/4=6\,300$ units (1) EITHER $(\\$27-\\$10) \times 6\,300=\\$107\,100$ (1) $\\$107\,100 - \\$50\,000=57\,100$(1) $(0.909 + 0.826 + 0.751 + 0.683) = 3.169$ $NPV\ \\$57\,100 \times 3.169 - (\\$8\,000 \times 0.909)$(1) – $(\\$8\,000 \times 0.751)$(1) – $\\$160\,000 = \\$7\,670$(1)OF OR <table><tr><td></td><td>Net cash flows</td><td></td><td></td><td></td></tr><tr><td></td><td>\$</td><td>10%</td><td>PV</td><td></td></tr><tr><td>Year 0</td><td>(160 000)</td><td>1</td><td>(160 000)</td><td></td></tr><tr><td>Year 1</td><td>49 100</td><td>0.909</td><td>44 632</td><td>(1)</td></tr><tr><td>Year 2</td><td>57 100</td><td>0.826</td><td>47 165</td><td>(1)</td></tr><tr><td>Year 3</td><td>49 100</td><td>0.751</td><td>36 874</td><td>(1)</td></tr><tr><td>Year 4</td><td>57 100</td><td>0.683</td><td><u>38 999</u></td><td>(1)</td></tr><tr><td></td><td></td><td></td><td><u>7 670</u></td><td>(1)OF</td></tr></table> The director's suggestion also gives positive NPV. There is no impact on the decision to buy the machine. (1)		Net cash flows					\$	10%	PV		Year 0	(160 000)	1	(160 000)		Year 1	49 100	0.909	44 632	(1)	Year 2	57 100	0.826	47 165	(1)	Year 3	49 100	0.751	36 874	(1)	Year 4	57 100	0.683	<u>38 999</u>	(1)				<u>7 670</u>	(1)OF	7
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