Cambridge International AS & A Level

Cambridge International Examinations
Cambridge International Advanced Subsidiary and Advanced Level

ACCOUNTING **9706/32**

Paper 3 Structured Questions **May/June 2017**

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 will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the May/June 2017 series for most Cambridge IGCSE®, Cambridge International A and AS Level and Cambridge Pre-U components, and some Cambridge O Level components.

Question	Answer	Marks
1(a)	Richard Ang Manufacturing account for year ended 31 July 2016	7

	$	$	
Opening inventory of raw materials		14 800	
Purchases		207 600	
Carriage inwards		6 800	
		229 200	
Closing inventory of raw materials		16 400	
Cost of raw materials consumed		212 800	**(1)**
Direct wages		171 500	**(1)**
Prime cost		384 300	**(1)OF**
Indirect wages		51 400	
Factory overhead		161 000	**(1)**
		596 700	
Opening work in progress	23 500		
Closing work in progress	20 200	3 300	**(1)**
Cost of goods manufactured		600 000	
Factory profit 20%		120 000	**(1)OF**
Transferred to (Trading section of) the Income Statement		720 000	**(1)OF**

Workings

Direct wages	$168 000+$3500=$171 500
Factory overheads:	
Total rent:	$24 000+$16 000=$40 000
Revised allocation rate 3:	1
Factory overheads:	$40 000×3/4=$30 000
Factory overheads	=$155 000+($30 000–$24 000)=$161 000

Question	Answer	Marks
1(b)	Richard Ang Income statement for year ended 31 July 2016	7

	$		$	
Revenue			986 000	
Return inwards			12 000	
			974 000	**(1)**
Opening inventory of finished goods	38 400	**(1)**		
Transferred from Manufacturing Account	720 000			
	758 400			
Closing inventory of finished goods	54 000		704 400	
Gross profit			269 600	**(1)OF**
Office overheads			188 000	**(1)**
Carriage outwards			17 500	
			64 100	
Factory profit	120 000			
Increase in provision for unrealised profit (54 000×20/120)**(1)**–($38 400×20/120)**(1)**	2 600		117 400	
Profit for the year			181 500	**(1)OF**

* Must include the item of 'Transferred from Manufacturing Account'
** Must include the item of 'Factory profit'

Workings

Finished goods 01 Aug 2015, $32 000×120%=$38 400

Office overheads $\$194\,000–(\$16\,000 – \$40\,000 \times \frac{1}{4})=\$188\,000$

Question	Answer	Marks
1(c)	| | $ | $ | | Current Assets Inventory Raw materials — 16 400 Work in progress — 20 200 }**(1) for both** Finished goods — 54 000 Less: Provisions for Unrealised profit — <u>(9 000)</u> — <u>45 000</u> **(1)OF** <u>81 600</u> **(1)OF**	**3**
1(d)	To remove unrealised profit from income statement **(1)** otherwise profits are overstated **(1)** by amount of unrealised profit. In accordance with the prudence concept **(1)**, to ensure inventories are not overvalued **(1)** and are valued at cost and not cost plus a mark-up **(1)**. **Max 4**	**4**
1(e)	Responses could include: Advantages Family help Potential for new market Less risk of obsolete stock Disadvantages Less inventory to sell/may not be able to respond to increase in demand More competition May undercut him If doesn't charge sister he will lose profit If sister's business fails he might not get paid **1 mark for each advantage. Max 2** **1 mark for each disadvantage. Max 2**	**4**
	Total:	**25**

Question	Answer	Marks
2(a)	**(i)** Return on capital employed $\frac{\$400\,000^*}{\$6\,300\,000}$ **(1)** = 6.35% **(1)OF** *Profit from ops for 2016 $160 000÷(1–60%)=$400 000 **(ii)** Earnings per share $\frac{\$400\,000}{1\,000\,000}$ **(1)** = $0.40 **(1)OF** **(iii)** Price earnings ratio $\frac{\$6.4}{\$0.4}$ = 16.00 **(1)OF** **(iv)** Dividend cover $\frac{\$400\,000}{\$240\,000}$ = 1.67 times **(1)OF** **(v)** Dividend yield $\frac{\$240\,000}{1\,000\,000}$ = $0.24 **(1)OF** $\frac{\$0.24}{\$6.4}$ = 3.75% **(1)OF**	**8**
2(b)	Share capital and reserves at 31 December 2017 | | $000 | | Ordinary shares capital 6000 **(1)** Share premium 700 **(1)** Retained earnings **(W1)** 1034 7734 **W1** $000 Retained earnings at 1.1.2017 800 **(1)** Profit for the year for 2017 (400+185) 585 **(1)OF** Dividend paid 585 × 60% (351) **(1)OF** Retained earnings at 31.12.2017 1034 **(1)OF**	**6**

Question	Answer	Marks
2(c)	**(i)** Return on capital employed $\frac{\$585\,000\ \textbf{(1)OF}}{\$7\,734\,000\ \textbf{(1)OF}}$ = 7.56% **(1)OF** **(ii)** Earnings per share $\frac{\$585\,000\ \textbf{(1)OF}}{1\,200\,000\ \textbf{(1)}}$ = $0.49 **(1)OF**	6
2(d)	Responses could include: • Better/higher/increased return on capital employed • Better/higher/increased earnings per share • Share price may increase due to improved profitability • Share price may decrease with more shares in circulation • The project return is higher than the 2016 return on capital employed **(1 mark)** for the recommendation + **(1 mark × 4 reasons)**	5
	Total:	25

Question	Answer	Marks
3(a)	Responses may include: • Financial statements need to be understandable by different interested stakeholders; • Financial statements need to be relevant for decision making • Financial statements need to be reliable • Financial statements need to be comparable • Accounting policies adopted are appropriate • Accounting concepts/assumptions are adhered to, i.e. Prudence, accrual, going concern and consistency • To ensure fair representation and to show true and fair view • Form the basis of auditor's opinion Accept any reasonable alternative **(1 mark)** × 4 valid points	4

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>3(b)</td><td>The directors manage the company on behalf of the owners (shareholders) (1). They are accountable and report to the owners (shareholders) (1)</td><td>2</td></tr>
<tr><td>3(c)</td><td>
Z Limited
Statement of financial position at 31 December 2016

<table>
<tr><td></td><td>$</td><td></td><td></td></tr>
<tr><td>Non-current assets</td><td></td><td></td><td></td></tr>
<tr><td>Property, plant and equipment</td><td><u>491 500</u></td><td>(1)OF</td><td>($478 000+21 000 (1)–7500 (1))</td></tr>
<tr><td></td><td><u>491 500</u></td><td></td><td></td></tr>
<tr><td>Current assets</td><td></td><td></td><td></td></tr>
<tr><td>Inventories</td><td>124 000</td><td></td><td></td></tr>
<tr><td>Trade receivables</td><td>187 000</td><td>(1)</td><td>($217 000–30 000)</td></tr>
<tr><td>Cash and cash equivalents</td><td><u>132 000</u></td><td></td><td></td></tr>
<tr><td></td><td><u>443 000</u></td><td></td><td></td></tr>
<tr><td>Total assets</td><td><u>934 500</u></td><td></td><td></td></tr>
<tr><td>Equity and liabilities</td><td></td><td></td><td></td></tr>
<tr><td>Equity</td><td></td><td></td><td></td></tr>
<tr><td>Ordinary shares of $1 each</td><td>500 000</td><td></td><td></td></tr>
<tr><td>Retained earnings</td><td><u>164 500</u></td><td></td><td>($210 000–29 000 (1)–9000 (1)</td></tr>
<tr><td>Total equity</td><td><u>664 500</u></td><td></td><td>–7500 (1))</td></tr>
<tr><td>Current liabilities</td><td></td><td></td><td></td></tr>
<tr><td>Trade payables</td><td>188 000</td><td></td><td></td></tr>
<tr><td>Provision for compensation</td><td>29 000</td><td>(1)</td><td></td></tr>
<tr><td>Taxation</td><td><u>53 000</u></td><td></td><td></td></tr>
<tr><td></td><td><u>270 000</u></td><td></td><td></td></tr>
<tr><td>Total equity and liabilities</td><td><u>934 500</u></td><td></td><td></td></tr>
</table>
</td><td>8</td></tr>
</table>

Question	Answer	Marks
3(d)	Treatment of compensation (reference IAS 37) **(1)** There is a 90% probability**(1)** of losing the case. Therefore a provision for compensation ($29 000) should be shown as a current liability/other payable **(1)** Treatment of trade receivables Z Limited only recovered $21 000 in the form of non-current assets. **(1)** The remaining $9000 which is irrecoverable debt should be written off as bad debt (or a specific provision) against retained earnings **(1)**. The full $30 000 has been deducted from trade receivables **(1)**. Treatment of machinery (reference IAS 36) **(1)** According to IAS 36, an asset is impaired when its carrying amount ($40 000) is more than its recoverable amount ($32 500). **(1)**. Recoverable amount is the higher of its fair value ($32 500) and value in use ($19 500)**(1)**. The impaired loss of the piece of machinery is $7500 ($40 000–$32 500) which has to been written off against retained earnings. **(1)** **Max 2 marks for each adjustment**	**6**
3(e)	Advantages • increase the credibility/reliability of accounts • maybe helpful if Jack wants to apply for a bank loan/investment from 3rd parties • help identify weaknesses in the internal procedures Disadvantages • high cost of audit fee • no segregation of ownership and management in Jack's business • no need for audit as sole trader **Max 3 marks** for the advantages and **Max 2 marks** for the disadvantages	**5**
	Total:	**25**

Question	Answer	Marks
4(a)	Goodwill is the amount paid for the acquisition of a business in excess of the acquired business' separable net assets at fair value	1
4(b)	Purchase consideration Profit before appropriation: Residual profit (36 000+24 000) 60 000 Partners' salaries (30 000+45 000) 75 000 Interest on capital (15 000+10 000) 25 000 160 000 **(1)** × 5 800 000 **(1) OF** Fair value of net assets taken over $ Land and buildings 450 000 Plant and machinery 120 000 Motor vehicles 60 000 Inventory 49 000 Trade receivables 52 000 731 000 Trade payable (39 000) 692 000 **(1)** Goodwill 108 000 **(1) OF**	4

Question	Answer	Marks
4(c)		4

	$	$	
Purchase consideration		800 000	**(1) OF**
Value of motor vehicle taken over		28 000	**(1)**
		828 000	
Book value of net assets			
Land and buildings	320 000		
Plant and machinery	135 000		
Motor vehicles	110 000		
Inventory	38 000		
Trade receivables	54 000		
Trade payables	(39 000)	618 000	**(1)**
Profit on realisation		210 000	**(1) OF**

Question	Answer	Marks
4(d)		11

	Alex		Brown			Alex		Brown	
	$		$			$		$	
Motor vehicle taken over	28 000	**(1)**			Balance b/d	300 000	**)**	200 000	**) (1)**
C Ltd -Debs – 8% debentures	187 500	**(1)**	125 000	**(1)**	Current A/cs	76 000	**)**	61 000	**) (1)**
C Ltd - Shares – ordinary shares	216 000	**(1)OF**	144 000	**(1)OF**	Profit	126 000	**(1)OF**	84 000	**(1)OF**
Cash/bank	70 500	**(1)OF**	76 000	**(1)OF**					
	502 000		345 000			502 000		345 000	

Workings:

	$		$
Purchase consideration			800 000
Cash			(127 500)
8% Debentures			
Alex $15 000÷8%	187 500	**(1)**	
Brown $10 000÷8%	125 000	**(1)**	(312 500)
Settled by ordinary shares			360 000
Alex $360 000×60%	216 000	**(1)OF**	
Brown $360 000×40%	144 000	**(1)OF**	(360 000)
			0

Question	Answer	Marks
4(e)	The responses may include: • ROCE before the acquisition is 7.79% ($352 000/$4 516 000) • Additional return from this acquisition is 23.5%<($540 000–$352 000)/$800 000> • Shareholders may receive higher dividend • Improvement through the synergy effect, e.g. greater buying power, discounts from suppliers • Economy of scale • Alex and Brown's skills, experience and methods may bring additional benefits • Goodwill of partnership brings additional revenue/customers • Efficiency in operation • Access to wider market **(1 mark)** × 5 valid points	**5**
	Total:	**25**

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>5(a)</td><td>Flexed budget for April
<table>
<tr><td></td><td>$</td><td></td><td>$</td><td></td></tr>
<tr><td>Sales</td><td></td><td></td><td>270 000</td><td>(1)</td></tr>
<tr><td>Direct labour</td><td>75 600</td><td>(1)</td><td></td><td></td></tr>
<tr><td>Direct materials</td><td>65 880</td><td>(1)</td><td></td><td></td></tr>
<tr><td>Variable overheads</td><td>18 000</td><td>(1)</td><td></td><td></td></tr>
<tr><td>Fixed overheads</td><td><u>19 300</u></td><td>(1)</td><td><u>178 780</u></td><td></td></tr>
<tr><td>Profit</td><td></td><td></td><td><u>91 220</u></td><td>(1)OF</td></tr>
</table></td><td>6</td></tr>
<tr><td>5(b)(i)</td><td>LEV = 1050 (1) A (1)</td><td>2</td></tr>
<tr><td>5(b)(ii)</td><td>LRV = 18 980 (1) A (1)</td><td>2</td></tr>
<tr><td>5(b)(iii)</td><td>MUV = 1220 (1) A (1)</td><td>2</td></tr>
<tr><td>5(b)(iv)</td><td>MPV = 3850 (1) F (1)</td><td>2</td></tr>
</table>

Question	Answer	Marks
5(c)	MUV – extra hours meant staff were demotivated/tired which increased wastage **(1)** inefficient use of material **(1)** MPV – quantity discount given **(1)** purchased materials from cheaper supplier **(1)** **Maximum 1 for MUV and 1 for MPV**	**2**
5(d)	The suggestion appears sound **(1)** because the actual labour costs are higher **(1)** by $11 390 **(2)*** than labour costs under the suggestion. * ($95 630 **(1)**–$84 240 **(1)**)=$11 390 But inexperienced staff might make more errors **(1)** leading to an increase in the adverse materials usage variance. **(1)**. Although labour costs are saved there will be higher training costs **(1)** which will impact on production/profit **(1)**. **Decision (1) Justification (5)**	**6**
5(e)	Helps preparation of budgets. Helps calculation of quotes/prices. Highlights the activities giving rise to the variances. Enables responsibility accounting. Any three comments × **(1 mark)**	**3**

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>6(a)</td><td>
<table>
<tr><th></th><th>Year 0
$</th><th>Year 1
$</th><th>Year2
$</th><th>Year 3
$</th><th>Year 4
$</th><th>Year 5
$</th><th></th></tr>
<tr><td>Initial outlay</td><td>(125 000)</td><td></td><td></td><td></td><td></td><td></td><td>(1)OF</td></tr>
<tr><td>One-off service cost</td><td></td><td>(1 000)</td><td></td><td></td><td></td><td></td><td rowspan="2">} (1) both</td></tr>
<tr><td>Resale value</td><td></td><td></td><td></td><td></td><td></td><td>65 000</td></tr>
<tr><td>Sales price increase</td><td></td><td>10 000</td><td>10 000</td><td>10 000</td><td>10 000</td><td>10 000</td><td>(1) row</td></tr>
<tr><td>Variable cost decrease</td><td></td><td>20 000</td><td>20 000</td><td>20 000</td><td>20 000</td><td>20 000</td><td>(1) row</td></tr>
<tr><td>Maintenance costs</td><td></td><td>(5 000)</td><td>(5 000)</td><td>(5 000)</td><td>(5 000)</td><td>(5 000)</td><td>(1) row</td></tr>
<tr><td>Total cash flows</td><td>(125 000)</td><td>24 000</td><td>25 000</td><td>25 000</td><td>25 000</td><td>90 000</td><td></td></tr>
</table>
</td><td>5</td></tr>
<tr><td>6(b)</td><td>
<table>
<tr><th>Year</th><th>Net cash flow
$</th><th></th></tr>
<tr><td>1</td><td>24 000</td><td rowspan="4">} $99 000</td></tr>
<tr><td>2</td><td>25 000</td></tr>
<tr><td>3</td><td>25 000</td></tr>
<tr><td>4</td><td>25 000</td></tr>
<tr><td>5</td><td>90 000</td><td></td></tr>
</table>
$125 000–$99 000=$26 000/$90 000=0.288×12 mth=3.47 mth
Answer: 4 years (1)OF 4 months (1)OF
</td><td>2</td></tr>
<tr><td>6(c)</td><td>Simple to calculate/understand.
Uses cash flows not profits so not corrupted by accounting methods.
Reduces risk by preferring early cash flows/short term projects.
Useful as a first screening tool.
Useful for capital rationing decisions to identify those projects that generate cash quickly.
Better for liquidity–prefers early cash flows.

(1 mark) × any 3 reasons, Max 3</td><td>3</td></tr>
</table>

Question	Answer	Marks
6(d)	<table><tr><td></td><td>Year 0 $</td><td>Year 1 $</td><td>Year2 $</td><td>Year 3 $</td><td>Year 4 $</td><td>Year 5 $</td><td>NPV $</td></tr><tr><td>Total cash flows</td><td>(125 000)</td><td>24 000</td><td>25 000</td><td>25 000</td><td>25 000</td><td>90 000</td><td></td></tr><tr><td>Discount factor</td><td>1</td><td>0.909</td><td>0.826</td><td>0.751</td><td>0.683</td><td>0.621</td><td></td></tr><tr><td>Discounted cash flow</td><td>(125 000) **(1)OF**</td><td>21 816</td><td>20 650</td><td>18 775</td><td>17 075</td><td>55 890</td><td>9206 **(1)OF**</td></tr></table>**all 5 years (1)OF**	**3**
6(e)	$10\%\ \mathbf{(1)} + \left[20-10\mathbf{(1)} \times \frac{9206}{9206+24953}\mathbf{(1OF)}\right] = 12.695\%\ \mathbf{(1)OF}$	**4**
6(f)	NPV Both are positive but alternative machine has the better/higher NPV **(1)** IRR First machine has the better/higher IRR **(1)** Payback First machine has the better/shorter payback **(1)** Cost First machine has the lower initial outlay which helps as Tisha has limited capital available **(1)** Choose the first machine **(1)** **1 For decision + Maximum 3 for reasons**	**4**
6(g)	Cash flow patterns **(1)** how reliable are they? **(1)** Which one is closest to current ROCE **(1)** Cost of capital **(1)** Source of capital/funding **(1)** Quality of output **(1)** Training time/costs **(1)** Environmental issues **(1)** **1 mark for valid point, Max 4**	**4**
	Total:	**25**