



Mark Scheme **Results**

April 2017

Pearson LCCI
Advanced Business Calculations Level 3
(ASE3003)

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ASE3003
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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

Question Number	Answer	Mark
1 (a)	<p>Percentage interest in 6 months = $6.9\% / 2 = 3.45\%$</p> <p>Value at redemption = $\\$484,000 \times 1.0345$ $= \\$500,698$</p> <p>$= \\$501,000$ to nearest thousand.</p>	<p>M1</p> <p>M1</p> <p>A1r (3)</p>

Question Number	Answer	Mark
1 (b) (i)	<p>Interest in year 4 = $\\$112,486.40 - \\$108,160$ $= \\$4,326.40$</p> <p>Rate of interest = $\\$4,326.40 / \\$108,160$ $= 4\%$</p>	<p>M1</p> <p>M1</p> <p>A1 (3)</p>

Question Number	Answer	Mark
1 (b) (ii)	<p>Original sum = $\\$108,160 / 1.04^3$ $= \\$96,153.85$</p>	<p>M1</p> <p>A1 (2)</p>

Question Number	Answer	Mark
1 (b) (iii)	<p>Total after second year = $\\$96,153.85 \times (1.04)^2 = \\$104,000$</p> <p>Total interest added = $\\$104,000 - \\$96,153.85$ $= \\$7,846.15$</p>	<p>M1</p> <p>M1</p> <p>A1(3)</p>

Total for Question 1 – 11 marks

Question Number	Answer	Mark
2 (a)	Percentage change per annum = $(£400 - £352) / (£400 \times 3) = 0.04$ =4% reduction	M1 A1(2)

Question Number	Answer	Mark
2 (b)	Increase per unit = $£9,750 / 2,500 = £3.90$ Original cost per unit = $£56 - £3.90 = £52.10$	M1 A1(2)

Question Number	Answer	Mark
2 (c) (i)	Total cost of shares = $35,000 \times £6.48$ = £226,800	M1 A1(2)

Question Number	Answer	Mark
2 (c) (ii)	Annual dividend = $35,000 \times £5 \times 4\frac{1}{2}\%$ = £7,875	M1 A1(2)

Question Number	Answer	Mark
2 (c) (iii)	Annual dividend percent = $£7,875 / £226,800 = 0.0347222 = 3.47\%$	M1 A1(2)

Question Number	Answer	Mark
2 (d)	Nominal value - Purchase price = $£100 - £93$ = £7	M1
	Hence Rashid purchased $£15,400 / £7 = 2,200$ "units" of stock.	M1
	Total cost to Rashid = $£93 \times 2,200 = £204,600$	A1
	Alternatively,	<u>OR</u>
	Difference in price ($£100 - £93$) is 7% of nominal.	M1
	Nominal value of total stock = $£15,400 / 0.07$ = £220,000	M1
	Rashid paid $£220,000 - £15,400 = £204,600$	A1(3)

Total for Question 2 – 13 marks

Question Number	Answer	Mark
3 (a)	<p>Total cost for an output of 35,000 units:</p> <p>Method X: $K900,000 + (35,000 \times K43) = K2,405,000$</p> <p>Let C represent the variable cost per unit. Method Y: $K739,000 + (35,000 \times KC)$</p> <p>Since both are equal, $K739,000 + (35,000 \times KC) = K2,405,000$</p> <p>Thus $C = (K2,405,000 - K739,000) / 35,000 = K47.60$</p>	<p>M1</p> <p>M1</p> <p>M1</p> <p>M1 A1(5)</p>

Question Number	Answer	Mark
3 (b) (i)	<p>Contribution per unit = $K900,000 / 72,000 = K12.50$</p>	<p>M1 A1(2)</p>

Question Number	Answer	Mark
3 (b) (ii)	<p>Selling price = $K43 + K12.50 = K55.50$</p>	<p>M1 A1(2)</p>

Question Number	Answer	Mark
3 (c)	<p>Profit = $(120,000 \times K12.50) - K900,000 = K600,000$</p> <p>Alternatively $(120,000 - 72,000) \times K12.50 = K600,000$</p>	<p>M1 A1</p> <p><u>OR</u> M1 A1 (2)</p>

Question Number	Answer	Mark
3 (d)	<p>Contribution per unit = $K55.50 - K47.60 = K7.90$</p> <p>Profit = $(120,000 \times K7.90) - K739,000 = K209,000$</p>	<p>M1 A1</p> <p>M1 A1(4)</p>

Total for Question 3 – 15 marks

Question Number	Answer	Mark
4 (a) (i)	Current ratio = £764,757 / £364,170 = 2.1 : 1	M1 A1(2)

Question Number	Answer	Mark
4 (a) (ii)	Bank account has £764,757 - (£215,450 + £4,290 + £173,830) = £371,187	M1 A1(2)

Question Number	Answer	Mark
4 (b)	The current ratio is healthy. The current ratio is greater than 2 : 1, which is the recommended "healthy" limit.	A1(1) A1(1)

Question Number	Answer	Mark
4(c) (i)	Stock at start of year = £207,800 - (£215,450 - £207,800) = £200,150 Alternatively, (2 x £207,800) - £215,450 = £200,150	M1 A1 Or M1 A1 (2)

Question Number	Answer	Mark
4 (c) (ii)	COGS = £3,256,300 + £200,150 - £215,450 = £3,241,000	M1 A1(2)

Question Number	Answer	Mark
4 (c) (iii)	Rate of stockturn = £3,241,000 / £207,800 = 15.59672762 = 15.6 (times per annum)	M1 A1(2)

Total for Question 4 – 12 marks

Question Number	Answer	Mark
5 (a)	Cost = RM275,000 After year 1: -RM275,000 - RM15,000 = -RM290,000 After year 2: -RM290,000 + RM170,000 = -RM120,000 Proportion of year 3 = RM120,000 / RM180,000 = 2 / 3 = 8 months Payback period = 2 years 8 months	M1 M1 A1(3)

Question Number	Answer	Mark
5 (b)	On the basis of the payback, Project Two is the better investment, as payback takes 2 years 8 months which is less than Project One where 2 years 9 months is needed. Can also accept an answer suggesting there is very little difference between the payback periods so that there is little to choose between projects.	A1A1ft (2)

Question Number	Answer				Mark
5 (c)		RM	Discount Factor	NPV (RM)	
	Cost	275,000	1	(275,000)	M1
	Year 1	(15,000)	0.877	(13,155)	A1
	Year 2	170,000	0.769	130,730	
	Year 3	180,000	0.675	121,500	A1
	Year 4	60,000	0.592	35,520	
				<hr/>	
				-405	M1A1
First M1 is for setting about the NPV calculation correctly, including the investment cost at par. The first A1 mark is for (13,155).The second A1 mark is for any of the following three positive figures. Second M1 is for adding the figures. Final A1 is for achieving the correct answer.					
(5)					

Question Number	Answer	Mark
5 (d)	With a discount factor of 14%, Project One has a positive NPV, while Project Two has a negative NPV. Thus, Project One achieves a 14% return, while Project Two does not. Project Two achieves its payback point more quickly, but performs less well when the time value of money is taken into account.	A1ft A1ft A1ft (3)

Total for Question 5 – 13 marks

Question Number	Answer	Mark
6 (a) (i)	Received as a secured creditor = $40\% \times £350,000$ = £140,000	M1 A1(2)

Question Number	Answer	Mark
6 (a) (ii)	Owed as an unsecured creditor = $£350,000 - £140,000 = £210,000$ Received as unsecured creditor = $30\% \times £210,000$ = £63,000	M1 M1 A1(3)

Question Number	Answer	Mark
6 (b) (i)	Rate = $£31,500 / £60,000$ = $0.525 = £0.525$ in the £.	M1 A1(2)

Question Number	Answer	Mark
6 (b) (ii)	Unsecured creditors = $£740,000 - £390,000$ = £350,000	M1 A1(2)

Question Number	Answer	Mark
6 (b) (iii)	Paid to unsecured creditors = $£0.525 \times £350,000$ = £183,750 Total assets realised: $£390,000 + £183,750 + £9,750 = £583,500$	M1 A1(2)

Total for Question 6 –11 marks

Question Number	Answer	Mark
7 (a)	$RM1,114,750 / RM3,250,000 = 0.343$ $\sqrt[3]{0.343} = 0.7$ $1 - 0.7 = 0.3$ $= 30\%$	M1 M1 M1 A1(4)

Question Number	Answer	Mark
7 (b) (i)	Annual depreciation = $(RM1,114,750 - RM14,750) / 4$ $= RM275,000$	M1 A1(2)

Question Number	Answer	Mark
7 (b) (ii)	Book value after 6 years $= RM14,750 + RM275,000$ $= RM289,750$	M1 A1 (2)

Question Number	Answer	Mark
7 (c)	$1 - 0.46 = 0.54$ Book value after 7 years $= 0.54^7 \times RM3,250,000$ $= RM43,515.07$	M1 M1 A1(3)

Question Number	Answer	Mark
7 (d)	Scrap value is $RM3,250,000 - (7 \times RM464,000)$ $= RM2,000$	M1 A1(2)

Total for Question 7 – 13 marks

Question Number	Answer	Mark
8 (a)	Index of sales 2014 = $100 \times 168,000 / 120,000$ = 140 Index of sales 2015 = $100 \times 138,000 / 120,000$ = 115	M1 A1 A1(3)

Question Number	Answer	Mark
8 (b)	Index of prices 2014 = $100 \times \text{¥}280 / \text{¥}320$ = 87.5 Index of prices 2015 (chain) = $100 \times \text{¥}336 / \text{¥}280$ = 120	A1 M1 A1(3)

Question Number	Answer	Mark
8 (c)	Number of sales = $138,000 \times 1.05$ = 144,900	M1 A1(2)

Question Number	Answer	Mark
8 (d)	M1 for revenue of either 2014 <u>OR</u> 2015: 2014 168,000 units x 280 = 47,040,000 2015 138,000 units x 336 = 46,368,000 M1 for calculation of index for either 2014 <u>OR</u> 2015: 2014 $100 \times 47,040,000 / 38,400,000$ 2015 $100 \times 46,368,000 / 38,400,000$ 2014 Index = 122.5 2015 Index = 120.7(5)	M1 M1 A1 A1 (4)

Total for Question 8 – 12 marks
Total for Paper – 100 marks