Paper Reference(s)

WAC02/01

Pearson Edexcel

International Advanced Level

Accounting (Modular Syllabus)

Unit 2 – Corporate and Management Accounting

Tuesday 21 January 2014 – Afternoon

Source booklet for use with Questions 1 to 7.

Do not return the insert with the question paper.

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SECTION A

SOURCE MATERIAL FOR USE WITH QUESTION 1

1. Tsevo Farms Limited has won a four-year contract to supply a major supermarket chain with salads and sandwiches. The initial costs involved in obtaining the contract were £700 000.

The following information relates to the contract:

- In the first year, 13 500 products a week will be supplied, at an average selling price of £0.73 each.
- In years two and three, 14 000 products a week will be supplied, at an average selling price of £0.75 each.
- In year four, 14 500 products a week will be supplied, at an average selling price of £0.77 each.
- In years one and two, the running costs (including depreciation) are expected to be £8 500 a week.
- In years three and four, the running costs (including depreciation) are expected to be £8 800 a week.
- Depreciation is expected to be £164 000 per annum for the first four years.
- Assume 52 weeks in a year.
- The cost of capital for the company is 9%.

Required:

(a) Calculate the net present value of the contract at the end of year 4.

(18)

A table showing the discount factors is given.

Year	9%
1	0.917
2	0.842
3	0.772
4	0.708

(b) Calculate the Payback period for the contract.

(8)

(c) Evaluate the project for the company, using the calculations made in (a) and (b) above and considering any other relevant factors.

(12)

The Chief Accountant for the company is also appraising the project using the Internal Rate of Return method. She has calculated the following figures:

Discount Rate	Net Present Value
16%	£21 430
20%	(£34 239)

Required:

(d) (i) Complete the calculation, clearly stating any formula used, to find the exact Internal Rate of Return, accurate to **two** decimal places.

(10)

(ii) Using your answer for the exact Internal Rate of Return calculated in (d)(i), decide whether Tsevo Farms should invest in the project, giving a reason for your answer.

(4)

(Total 52 marks)

Answer space for question 1 is on pages 2 to 8 of the question paper.

- **Question 1**

- part (a)

Inflows						
Year 1	13500	52	0.73	512460	√	
Year 2	14000	52	0.75	546000	√	
Year 3	14000	52	0.75	546000		
Year 4	14500	52	0.77	580580	√	
Outflows						
Year 1	8500	52	164000	278000	√	
Year 2	8500	52	164000	278000	√	
Year 3	8800	52	164000	293600	√	
Year 4	8800	52	164000	293600	√	
Net Present Value			Net	Discount	Discounted	
	Inflow	Outflow	Cash flow	Factor	Net CF	
Year 0				9%	-700000.00	√
Year 1	512460	278000	234460	√o/f 0.917	214999.82	√o/f
Year 2	546000	278000	268000	√o/f 0.842	225656.00	√o/f
Year 3	546000	293600	252400	√o/f 0.772	194852.80	√o/f
Year 4	580580	293600	286980	√o/f 0.708	203181.84	√o/f
					138690.46	√o/f √C

18 marks

- part (b)

Payback period	Net		
	Cash flow	Cumulative	
Year 1	234460	234460	
Year 2	268000	502460	√ o/f
Year 3	252400	754860	√ o/f

Payback period = 700 000 - 502 460 = 197 540 √ o/f

=2 years ($\frac{\text{197 540 o/f}}{\text{252 400 √ o/f}}$ x 12) √ = 2 years √ o/f 9.4 months √√ o/f

8 marks

- part (c)

Answers may include :
o/f rule applies

For investment
NPV method states invest √ as NPV is positive √
Payback method says invest √ as project does pay back √ . Payback period of 2.94 years should be acceptable for the company√
Positive cash flows received each year √

Other Relevant Points – could be For or Against investment.
How accurate are the predictions √ for costs, cost of capital, and revenues? √
Chance of renewal of contract after 4 years?√ Would this be profitable? √
Other possible investment projects available at present? √ More or less profitable? √
Objectives/strategy of company? √ Is this investment in line with objectives? √
Is supermarket ethical? √
Other methods could be considered e.g. Accounting rate of return √
Future prospects of investment √
Sandwich market is very competitive √
Sandwiches/food is a basic essential product √

Maximum for arguing one side only is 8 marks

Overall Conclusion
Company should invest. √√

12 marks

- part (d) (i)

Internal rate of Return =
Lower discount rate√ + (%difference between rates√ x $\frac{\text{NPV using lower \%rate}}{\text{Difference between NPVs}}$) √ √

$$= 16\% \surd + (4 \surd \times \frac{21\,430) \surd}{55\,669) \surd}$$

$$= 17.54\% \quad \surd \text{ o/f } \surd \text{ C}$$

10 marks

- part (d) (ii)

IRR at 17.54% o/f is greater√ than the cost of capital at 9%√ so company should invest in project√√ o/f

4 marks
Total 52 marks

SOURCE MATERIAL FOR USE WITH QUESTION 2

2. The Statements of Financial Position of Zonqor Minerals plc as at 31 December 2012 and 31 December 2013 were as follows:

	31 December 2012	31 December 2013
ASSETS	£	£
Non-current assets at cost	2 216 000	2 413 000
Provision for depreciation	(530 000)	(450 000)
Non-current assets carry over	1 686 000	1 963 000
Current assets		
Inventories	718 000	756 000
Trade and other receivables	112 000	119 000
Cash and cash equivalents	404 000	494 000
	1 234 000	1 369 000
Total Assets	2 920 000	3 332 000
EQUITY AND LIABILITIES		
Equity	£	£
Share capital - £1 Ordinary shares	1 000 000	1 200 000
6% Preference shares	400 000	400 000
Share premium	300 000	400 000
Retained earnings	601 000	634 000
Total capital and reserves	2 301 000	2 634 000
Non-current liabilities		
7% Debenture 2018	------------	250 000
Bank loan	175 000	------------
	175 000	250 000
Current liabilities		
Trade and other payables	323 000	347 000
Current tax payable	121 000	101 000
	444 000	448 000
Total Equity and Liabilities	2 920 000	3 332 000

Additional information:

1. Machinery costing £258 000 was sold for £54 000 on 1 April 2013. The book value of the machinery was £41 000.

2. Property was purchased for £455 000 on 1 May 2013.

3. An issue of 200 000 £1 Ordinary shares at a premium of 50 pence per share was made on 31 March 2013.

4. Ordinary shareholders received the following dividends in the year:

   - final dividend for 2012 of 4 pence per share on 22 January 2013
   - an interim dividend of 2 pence per share on 26 July 2013

5. Preference shareholders received their dividends in full during the year.

6. On 1 January 2013 the bank loan of £175 000 was paid off.

7. On 1 May 2013 a £250 000 7% debenture was issued, with interest to be paid in two equal half-yearly payments.

8. Operating profit before tax for the year ended 31 December 2013 was £222 000.

Required:

(a) Prepare a cash flow statement for the year ended 31 December 2013 for Zonqor Minerals plc in accordance with International Accounting Standard (IAS) 7 Cash Flow Statements (revised).
(40)

(b) Evaluate the raising of capital for a plc by issuing a debenture instead of taking out a bank loan.
(12)

(Total 52 marks)

Answer space for question 2 is on pages 10 to 15 of the question paper.

Question 2
part (a)

Statement of Cash Flow for y/e 31 December 2013			
Cash Flows from operating activities √			
Profit from operations (222000 √+ 8750 √)	230750	√√	
Add Depreciation	137000	√√√√√√	
Less Profit on Sale of Fixed Asset	(13000)	√	
Operating cash flow before working capital changes	354750	√o/f	
Increase in inventories	(38000)	√	
Increase in trade receivables	(7000)	√	**19**
Increase in trade payables	24000	√	
Cash generated from operations	333750	√o/f	
Less Interest Paid: Debenture (7% x 250 000 x 0.5) √	(8750)	√√	
Less Tax Paid	(121000)	√	
Net Cash from Operating Activities	204000	√o/f	
Cash Flow from Investing Activities √			
Payments to acquire tangible fixed assets	(455000)	√	
Proceeds from sale of tangible fixed assets	54000	√	
Net Cash Used in Investing Activities	(401000)	√o/f	**4**
Cash Flow from Financing Activities √			
Issue of Ordinary shares (200000√ + 100000√)	300000	√√	
Issue of debenture	250000	√	
Repayment of bank loan	(175000)	√	
Dividends Paid : Final 2012 (1 000 000 x 4p) √	(40000)	√√	
Interim 2013 (1 200 000 x 2p) √	(24000)	√√	
Preference (400 000 x 6%) √	(24000)	√√	
Net Cash From in Financing Activities	287000	√o/f	**12**
Net increase in cash and cash equivalents √	90000	√o/f √C	**3**
Cash and cash equivalents at beginning of the year	404000	√	
Cash and cash equivalents at the end of the year	494000	√	**2**
	TOTAL	√ x 40	**40 Marks**
Depreciation Calculation			
Leaving the books with machinery sold (258 000 - 41 000) √ =217000 √			
Left in the books (530 000 - 217 000) √ = 313 000 √			
Depreciation for the year = (450 000 - 313 000) √ = 137 000 √			

Part b
Answers may include:

Advantages of debentures
Debenture may have a lower rate of interest √ which would have been fixed on issue √. The bank loan may have a higher rate if there is a period of high or rising interest rates. √
Interest only has to be paid on a debenture every 6 months √, whereas bank loans require monthly repayments √. The debenture therefore allows the company some breathing space √ which is useful if trading is seasonal, or going through a period of low sales. √
Debenture may be for a longer period of time, √ which may benefit company, especially if to finance a long term project. √
Bank may wish to be involved in decision-making etc if loan given √ e.g. ask for a seat on the board √

Could argue either/both sides (as one √ each)
Interest on both is allowable for tax√√
Both have the same effect on gearing ie worsens √√
Could argue either/both sides – max of 2 ticks
Both would require assets √ to be offered as security/collateral. √
Bank loan could be renewed/refinanced √ to be the same length as a debenture√
Neither result in dilution of ownership √ so share price may not fall √

Advantages of bank loans
Interest rate may be lower √
Bank loan is likely to be for shorter period √ so less interest may be paid. √
Monthly repayments may be preferable √ to larger six-monthly repayments.√
Bank may have good relationship with company √ and give advice etc √
Debenture holders may wish to be involved in decision-making/control √ e.g. ask for a seat on the board √

Maximum for arguing one side only, 8 marks

Conclusion
Debentures / bank loans are better √√ 2 marks

12 marks

TOTAL 52 marks

SOURCE MATERIAL FOR USE WITH QUESTION 3

3. Kelontan Power plc supplies electricity. The company has an Authorised Share Capital of 40 000 000 £1 Ordinary Shares and 15 000 000 4% Redeemable Preference Shares of £1 each. On 1 January 2013, at the start of the financial year, the following balances were in the books:

	£
Ordinary Share Capital	30 000 000
Share Premium Reserve	7 500 000
4% Redeemable Preference Share Capital	10 000 000
Revaluation Reserve	1 000 000
Retained Earnings Reserve	12 850 000
General Reserve	3 000 000
7% Debenture 2018	5 000 000

The profit after interest, for the year ended 31 December 2013, before adjustments, was £4 572 000.

In December 2013, the directors of Kelontan Power plc agreed to:

1. provide a final dividend to Ordinary shareholders of 3 pence per share. The dividend was paid on 2 December 2013.
2. transfer 80% of the General Reserve to the Retained Earnings Reserve.
3. make a provision to cover an amount to be repaid to customers, overcharged in error. The company has 40 000 customers, who have been overcharged an average of £50 each.
4. redeem 5 000 000 4% Redeemable Preference shares at par.
5. revalue the company head office property from a present value of £4 000 000, to a market value of £5 000 000.
6. pay the final half-yearly interest instalment due to the debenture holders for the year on 29 December 2013.

Required:

(a) Journal entries to show the items 1–6 above as recorded in the books of Kelontan Power plc. Dates and narratives are **not** required.

(18)

(b) The Equity section from the Statement of Financial Position after the above items have been entered into the books.

(14)

At a Board of Directors meeting at the start of the year, a director stated:

"I know that Redeemable Preference shares should be treated as Debt, but Preference shares should be treated as Equity. Is it a good idea that the Preference shares we have issued are redeemable?"

Required:

(c) Briefly explain

(i) **two advantages** to Kolatun Power plc of redeeming some of the 4% Redeemable Preference shares.

(4)

(ii) **two disadvantages** to Kolatun Power plc of redeeming some of the 4% Redeemable Preference shares.

(4)

(d) Evaluate the creation and utilisation of a Capital Redemption Reserve.

(12)

(Total 52 marks)

Answer space for question 3 is on pages 16 to 22 of the question paper.

Question 3

- part (a)

	Debit	Credit
(i) Statement of Comprehensive Income / Statement of Changes in Equity / Retained Earnings√	900 000 √	
Ordinary Share Dividend √		900 000
Ordinary Share Dividend	900 000 √	
Bank		900 000 √
(ii) General Reserve	2 400 000 √	
Retained Earnings		2 400 000 √
(iii) Statement of Comprehensive Income	2 000 000 √	
Provision for Customer Repayments		2 000 000 √
(iv) 4% Preference Shares	5 000 000 √	
Bank		5 000 000 √
Retained Earnings / Statement of Comprehensive Income	5 000 000 √	
Capital Redemption Reserve		5 000 000 √
(v) Property	1 000 000 √	
Revaluation Reserve		1 000 000 √
(vi) Debenture Interest √	175 000 √	
Bank √		175 000

NOTE:

(1) Allow 'Statement of Comprehensive Income' OR 'Statement of Changes in Equity' OR Retained Earnings for (i)
(2) Allow 'Statement of Comprehensive Income' OR 'Retained Earnings' for (iv)

18 marks

- part (b)

Equity	
Authorised Share Capital	
Ordinary Shares of £1	40 000 000
4% £1 Redeemable Preference Shares	15 000 000√ both
Issued Share Capital	
Ordinary Shares of £1	30 000 000 √
4% £1 Redeemable Preference Shares	5 000 000 √
Share Premium reserve	7 500 000 √
Capital Redemption Reserve	5 000 000 √√
Revaluation reserve	2 000 000 √
Retained Earnings	11 922 000 √√√√√
General Reserve	600 000 √
Total Equity	62 022 000√ o/f

Retained earnings calculation =
(12 850 000 +4 572 000)√ +(2 400 000 -2 000 000)√ – 5 000 000√ - 900 000 √
= 11 922 000 o/f √

14 marks

- part (c) (i)

Advantages
Redeemable shares can be bought back from shareholders, √ so will mean less funds leave the company in the form of dividends each year √ leaving more funds in the business for operations √ or paying dividends to ordinary shareholders √
(Max 2 ticks for one point)
Buying back debt √ means that the gearing ratio could improve/reduce. √ which reduces risk √
Statement of Financial Position looks stronger √ which could help attract investors √
Capital may not be needed √
Return on Capital employed will rise √

4 marks

- part (c) (ii)

Disadvantages
Buying back the shares √ means a large outflow of funds at this time. √
Administration costs of buying back shares are high √ e.g. staff time, bank fees, postage etc. √
Preference shareholders may be unhappy √ and may not invest in the future √

4 marks

- part (d)

Evaluation of creating and utilising Capital Redemption Reserve (CRR);

Answers may include:

Case For;
CRR acts as a creditors' buffer √√
Capital base is maintained √
CRR is a Capital Reserve √ so it prevents directors/shareholders √ from taking cash/ capital out of the business, √ leaving little/nothing for creditors in the event of the company experiencing liquidity/ trading problems. √
Cannot be transferred back to the Statement of Comprehensive Income √ and then used to pay out dividends √
Presence of CRR may help a company obtain credit√ or investment/ buying of company shares√ as Statement of Financial Position appears stronger √
In certain circumstances e.g. redemption of shares, the CRR must be created by company law √ therefore should be of benefit. √
CRR can be used for a bonus issue of shares √

Case Against ;
Creating a CRR takes time and money √ and accounting expertise. √
Reduces flexibility, √ as company may not be able to do what they want to do e.g. redeem shares, √ if e.g. insufficient funds in revenue reserves. √

Maximum for arguing one side only 8 marks

Conclusion
Capital Redemption Reserve is worthwhile/ useful/ effective. √√

12 marks

Total 52 marks

SECTION B

SOURCE MATERIAL FOR USE WITH QUESTION 4

4. Auto Albion Motors plc are developing a new car, the Zeus.

The following information is available:
The costs involved in the launch of the new car are expected to be:

	£ million
Research and development	80
Purchase of land for factory	31
Building new factory	42
Machinery and equipment for new factory	28
Marketing	39

Capital for the new car project is to be funded in the following ways:

- A share issue to ordinary shareholders for 40% of the capital required.
- £84 million in prior charge capital is to be raised, consisting of a 6% debenture and a bank loan. This is to be raised in the following ratio: two thirds 6% debenture : one third bank loan
- The remainder is to be sourced from retained profit.

Required:

(a) Prepare a Capital Budget to finance the launch of the new Zeus car.

(6)

Additional information:

All cars are built to meet sales orders.

If a sales order cannot be met in the same week, the factory will produce the car in the next week, or as soon as possible.

The capacity of the factory is 6 800 cars a week.

In the first four weeks sales of Zeus cars are expected to be:

Week 1 8 000 Week 2 6 000 Week 3 5 500 Week 4 3 200

Required:

(b) Prepare a Production Budget, in units of cars produced, for each week of the first four weeks of production of Zeus cars.

(6)

Additional information:

The Zeus car will be sold to customers at a selling price of £11 750.

Customers are to be given three payment options to choose from:

- Option 1 – 60% of customers are expected to pay for their new car in cash in full on the day of the sales order.
- Option 2 – Buy the new car on the terms “nothing to pay for 12 months”, with payment being made in full 12 months after the date of the sales order.
  25% of customers are expected to select this option.
- Option 3 – Buy the new car on the terms “10% deposit, then 24 monthly payments of £450, starting one month after the sales order.
  The remaining customers are expected to select this option.

Required:

(c) Prepare a Cash Budget to show the amount received from customers for each of the first four weeks of sales of Zeus cars.

(12)

(d) Evaluate the three payment options from the point of view of Auto Albion Motors plc.

(8)

(Total 32 marks)

Answer space for question 4 is on pages 23 to 26 of the question paper.

- **Question 4**

- part (a)

80 + 31 + 42 + 28 + 39 = £220 million √

Capital Budget

Share capital	220 x 40%	=	£88 million √
	6% Debenture	=	£56 million √
	Bank loan	=	£28 million √
	Retained profit	=	£48 million √
	Total	=	£220 million √

6 marks

- part (b)

Week	1	2	3	4
		6 000 + 800	5 500 + 400	
Production	6 800 √	6 800 √√	5 900 √√	3 200 √

6 marks

- part (c)

	Week 1	Week 2	Week 3	Week 4
Option 1	56 400 000√	42 300 000√	38 775 000√	22 560 000√
Option 2	0	0	0	0
Option 3	1 410 000√	1 057 500√	969 375√	564 000√
Total	57 810 000√ o/f	43 357 500√ o/f	39 744 375√ o/f	23 124 000√ o/f

12 marks

- part (d)

Answers may include:
Maximum of one tick per box

	Advantage	Disadvantage
Option 1	Large amount of cash sale made	- Total amount per customer is less than option 3.(£11 750) - May not help sales volume
Option 2	May help sales of the new car	- No immediate cash inflow - Total amount per customer is less than option 3.(£11 750) - Credit given but no interest charged - Risk of bad debts
Option 3	- Total amount received per customer is highest using this option.(£11 975) - May help sales of new car.	- Relatively small amount of cash inflow received at sale - Risk of bad debts

Conclusion
Option 1/2/3 is the best option √√

8 marks

Total 32 marks

SOURCE MATERIAL FOR USE WITH QUESTION 5

5. Saidpur Household Appliances Limited produces kettles at its factory. For the 6 months ended 31 December 2013, the following information is available.

- Rent of the factory was £3 800 per quarter (three months).
- Payments to the workforce were at a rate of £3.60 per kettle.
- Material costs were £4.25 per kettle.
- Managers' salaries were £5 700 per month.
- Delivery costs were 20 pence (£0.20) per kettle.
- Other fixed costs were £2 440 per month.
- Production of kettles for the 6-month period was 8 500 kettles.
- All output is sold.
- Selling price was £14.95 per kettle.

Required:

(a) Calculate for Saidpur Household Appliances Limited for the 6-month period ended 31 December 2013 the:

(i) break-even point in units of output

(10)

(ii) margin of safety in sales revenue

(4)

(iii) profit or loss.

(4)

The 6 months ended 30 June 2014 are expected to see difficult trading conditions. The directors' policy is to break even, hoping to survive for the future. Output will be maintained at the present level, but selling price will be reduced as much as possible to arrive at break-even point.

Required:

(b) Calculate the selling price Saidpur Household Appliances Limited should charge in order to arrive at break-even point for a production of 8 500 units.

(6)

A management consultant has been asked his opinion on the intended policy of maintaining output levels and reducing selling prices in the next six months. The management consultant says Saidpur Household Appliances Limited should maintain selling prices and reduce output instead.

Saidpur Household Appliances Limited must choose between two possible policies for the future.

- Maintain present output level and reduce selling price
- Reduce present output level and maintain selling price

(c) Evaluate the two possible future policies for Saidpur Household Appliances Limited to follow for the next 6 months.

(8)

(Total 32 marks)

Answer space for question 5 is on pages 27 to 31 of the question paper.

Question 5

- part (a) (i)

Fixed Costs	£(3 800 x 2)√ +(5 700 x 6)√ +(2 440 x 6)√ = £56 440 √√√
Variable Costs	(£3.60 + 4.25 + 0.20) √ = £8.05 √
Contribution	£14.95 - £8.05 = £6.90 √ o/f
Break even point	56 440 √ o/f / 6.90 √
	= 8 180 units √ o/f √ C

10 marks

- part (a) (ii)

Margin of Safety in units	(8 500 – 8180 o/f) √ = 320 units √ o/f
Margin of safety in sales revenue	(320 o/f x £14.95) √ = £4 784 √ o/f

4 marks

- part (a) (iii)

Sales	8 500 x £14.95 = £127 075 √
Less Fixed Costs	= (£56 440) √ o/f
Less Variable Costs	(£8 500 x 8.05) = (£68 425) √ o/f
= Profit	= £ 2 210 √ o/f
OR	
Contribution x Sales	(8 500 x 6.90 o/f) √ = £58 650 √ o/f
Less fixed Costs	(£56 440) √ o/f
= Profit	£2 210 √ o/f
OR	
Contribution x Margin of Safety	(£6.90 √ o/f x 320 √ o/f)
= Profit	£2 208 √√ o/f

4 marks

- part (b)

Contribution per unit must be	= 56 440 √ o/f / 8 500 √ = £6.64 √ o/f
Plus Variable costs per unit	= £8.05 √ o/f
Therefore, selling price must be	= £14.69 √ o/f √ C

6 marks

- part (c)

Answers may include:

Maintaining Output and decreasing Selling Price
Advantages – Reducing price may lead to higher sales, √ when trading conditions are tough. √
This may allow SHA Ltd to survive √ until trading conditions improve √ , and competitors to fail. √
No need to lay off any staff if output is not reduced, √ which may involve redundancy costs etc. √

Disadvantages – Reduction in price of £0.26 √ is very little √ and may have no effect on sales. √
SHA Ltd may find they have unsold stock in these difficult conditions. √
Kettles are not a necessity in a downturn √ as substitutes exist √
Break-even point will be higher √ because contribution per unit is lower √
Total sales revenue decreases √

Maintaining Selling Price and decreasing Output
Advantages – Keeping the same selling price may mean SHA Ltd maintains market position √ i.e. does not appear to go down market. √
Avoids build up of unsold stock when trading is difficult √
Could make a loss assembling kettles that cannot be sold, √ so avoids unnecessary expense. √
Break-even point does not decrease √ because contribution per unit does not change.

Disadvantages – Total sales revenue decreases √
Reducing output may see resources wasted/unused √ e.g. materials, staff etc. √
Fixed costs are spread over a smaller output, √ so fixed costs per unit will rise. √

Maximum of 4 marks for arguing one side

Conclusion – 2 marks
Should maintain output (or selling price) and decrease selling price (or output).

8 marks

Total 32 marks

SOURCE MATERIAL FOR USE WITH QUESTION 6

6. You are the accountant for Southern Gas plc, which supplies gas to households. You will have to report on the financial statements of the company at the Board of Directors' meeting. Information concerning the performance of the company for the financial year ended 31 December 2013 is as follows:

Authorised share capital	40 million (40 000 000) £0.50 Ordinary shares
Issued share capital	30 million (30 000 000) £0.50 Ordinary shares
Net profit before interest and tax	£1 575 000
Net profit after interest and tax	£818 000
Total Equity	£22 850 000
Non-current liabilities	£12 625 000
Total ordinary dividend paid for year	£616 000
Share price	£0.53

Required:

(a) Calculate the gearing ratio, stating clearly the formula used.
(6)

(b) Calculate the following ratios:

(i) Return on Capital employed
(3)

(ii) Earnings per ordinary share
(3)

(iii) Price/earnings ratio
(3)

(iv) Dividend paid per share
(3)

(v) Dividend cover
(3)

(vi) Dividend yield.
(3)

Gas is supplied to households by two large companies, Southern Gas plc and Northern Gas plc. At the Board meeting, you must report whether Southern Gas plc has performed better or worse than the rival Northern Gas plc.

Information for Northern Gas plc for the financial year ended 31 December 2013 is given below.

Gearing ratio	54%
Return on capital employed	3.94%
Earnings per ordinary share	3.7 pence

Required:

(c) Evaluate the performance and position of Southern Gas plc as a business compared to Northern Gas plc for the financial year ended 31 December 2013.

(8)

(Total 32 marks)

Answer space for question 6 is on pages 32 to 36 of the question paper.

Question 6

- part (a)

Gearing ratio = $\dfrac{\text{Prior charge capital}}{\text{Capital employed } \checkmark} \times 100 \checkmark$

$= \dfrac{12\,625\,000 \checkmark}{12\,625\,000 \checkmark + 22\,850\,000 \checkmark} \times 100 = 35.59\% \checkmark$

6 marks

- part (b) (i)

Return on Capital employed = $\dfrac{\text{Net profit before interest and tax}}{\text{Capital employed}} \times 100$

$= \dfrac{£1\,575\,000 \checkmark}{£35\,475\,000 \checkmark} \times 100 = 4.44\% \checkmark$

3 marks

- part (b) (ii)

Earnings per ordinary share = $\dfrac{\text{Net profit after interest and tax}}{\text{Issued ordinary shares}}$

$= \dfrac{£818\,000 \checkmark}{30\,000\,000 \checkmark} = 2.73\text{p per share} \checkmark$

3 marks

- part (b) (iii)

Price/earnings ratio = $\dfrac{\text{Market price of share}}{\text{Earnings per share}}$

$= \dfrac{53.0\text{p} \checkmark}{2.73\text{p} \checkmark \text{ o//f}} = 19.4 \text{ times} \checkmark \text{ o/f}$

3 marks

- part (b) (iv)

Dividend paid per share = $\dfrac{\text{Total ordinary dividend}}{\text{Issued ordinary shares}}$

$= \dfrac{£616\,000 \checkmark}{30\,000\,000 \checkmark} = 2.05\text{p per share} \checkmark$

3 marks

- part (b) (v)

Dividend cover = $\dfrac{\text{Net profit after interest and tax}}{\text{Total ordinary dividend}}$

= $\dfrac{£818\ 000\ \checkmark}{£616\ 000\ \checkmark}$ = 1.33 times √

3 marks

- part (b) (vi)

Dividend yield = $\dfrac{\text{Dividend per share}}{\text{Market price of share}}$ x 100

= $\dfrac{2.05p\ \checkmark\ o/f}{53p\ \checkmark}$ x 100 = 3.87% √ o/f

3 marks

- part (c)

Answers may include
o/f rule applies

BETTER than Northern Gas plc
Gearing in Southern Gas is better √ as Northern Gas has a ratio higher than 50% benchmark. √
This makes Northern Gas a risky investment,√ they have probably taken out loans, debt capital etc√
ROCE is better √ in Southern Gas by 0.5 percentage points.√ Perhaps the large debt capital of Northern means the returns are lower √ e.g. due to interest payments √

WORSE than Northern Gas plc
Earnings per ordinary share in Northern Gas are about 1 pence √ per share higher which is better √
Perhaps Northern have a smaller equity share base √ which means EPS will be higher. √

Maximum of 4 marks for arguing one side

Conclusion
Southern Gas plc as a business has performed better/worse than Northern Gas plc. √√

8 marks

Total 32 marks

SOURCE MATERIAL FOR USE WITH QUESTION 7

7. Sheung Wan Construction plc purchased Ngau Builders plc on 1 January 2014. The directors of Sheung Wan Construction plc agreed to take over all of the assets and to settle all the liabilities of Ngau Builders plc. The purchase price was agreed at 1.5 times the net book value of Ngau Builders plc, **after** any revaluations.

The purchase was settled on the following terms. For every one share held in Ngau Builders plc, a shareholder received:

- four ordinary shares in Sheung Wan Construction plc of £0.50 each at a premium of £0.22 per share
- the balance settled in cash.

The Statements of Financial Position of the two companies on 31 December 2013, before any revaluations, were as follows:

	Sheung Wan Construction plc		**Ngau Builders plc**	
ASSETS	£	£	£	£
Non-current Assets				
Property, plant and equipment	780 000 000		49 500 000	
Intangible assets	16 000 000		5 740 510	
		796 000 000		55 240 510
Current Assets				
Inventories	18 500 000		4 350 000	
Trade and other receivables	12 540 000		768 000	
Cash and cash equivalents	7 286 000		12 890	
		38 326 000		5 130 890
Total Assets		834 326 000		60 371 400
EQUITY AND LIABILITIES	£	£	£	£
Equity				
Ordinary Shares of £0.50 each	500 000 000		- - - - - - - - -	
Ordinary Shares of £1 each	- - - - - - - - -		24 000 000	
Share premium	200 000 000		18 000 000	
Retained earnings	44 955 000		5 254 400	
Total capital and reserves		744 955 000		47 254 400
Non-current liabilities				
6.5% Debenture 2017	25 000 000		- - - - - - - -	
Bank loan	50 000 000		6 000 000	
		75 000 000		6 000 000
Current liabilities				
Trade and other payables	11 650 000		2 410 000	
Current tax payable	2 721 000		1 707 000	
Short-term provisions	- - - - - - - -		3 000 000	
		14 371 000		7 117 000
Total Equity and Liabilities		834 326 000		60 371 400

Additional information:

The assets of Ngau Builders plc were revalued as follows:

- Property with a book value of £7 860 000 to a current market value of £9 120 000
- Plant with a book value of £3 010 000 reduced by £943 000
- Trade Receivables reduced by 5%
- Current tax payable reduced to a figure of £1 240 000.

Required:

(a) Calculate the purchase price of Ngau Builders plc.

(6)

(b) Calculate the goodwill paid by Sheung Wan Construction plc in the purchase of Ngau Builders plc.

(2)

(c) Calculate the amount of cash a shareholder in Ngau Builders plc would receive for each share held.

(4)

(d) Prepare the Statement of Financial Position of Sheung Wan Construction plc as at 1 January 2014 after the purchase of Ngau Builders plc.

(12)

Shares in Sheung Wan Construction plc were trading on the market at £0.72 per share. Shares in Ngau Builders plc were trading at £2.30 a share on the market.

(e) From the point of view of a shareholder in Ngau Builders plc, evaluate the purchase of the company by Sheung Wan Construction plc.

(8)

(Total 32 marks)

Answer space for question 7 is on pages 38 to 42 of the question paper.

➢ Question 7

- part (a)

Calculation of Purchase Price			
Property, plant and equipment	+ 1 260 000 - 943 000	49 817 000	√
Trade and Other Receivables	Less 5%	729 600	√
Intangibles		5 740 510	
Inventories		4 350 000	
Cash and cash equivalents		12 890	√ need **3**
Bank Loan		(6 000 000)	
Trade and Other Payables		(2 410 000)	
Current tax payable		(1 240 000)	
Short term provisions		(3 000 000)	√ need **4**
Value of Net assets acquired		48 000 000	√ o/f
Purchase price	48 000 000 x 1.5	72 000 000	√ o/f

6 marks

- part (b)

Calculation of goodwill = (72 000 000 o/f -48 000 000 o/f) √ = £24 000 000 √ o/f

2 marks

- part (c)

Amount received per share = $\frac{\text{£72 000 000 o/f}}{24\ 000\ 000}$ = £3.00 per share √ o/f

Cash received per share = £3.00 - ((4 x 0.50) + (4 x 0.22)) premium)
Cash received per share = £3.00 - (£2.00 √ + 88 p premium √) = 12 pence per share held √

4 marks

- part (d)

Statement of Financial Position
Sheung Wan Construction plc as at January 1st 2014

Assets			**£**
Non-current Assets			
Property, plant and equipment	829 817 000	√	
Intangible assets (16000000 +5 740 510)√ + 24 000 000 √	45 740 510	√√	
			875 557 510
Current Assets			
Inventories	22 850 000		
Trade Receivables (12 540 000 + 729 600)	13 269 600	√ (2)	
Cash (7 286 000 + 12 890)√ – 2 880 000√	4 418 890	√√	
			40 538 490
Total Assets			**916 096 000**
Equity and Liabilities			
Equity			
Ordinary Shares of £0.50 each	548 000 000	√	
Share Premium(200000000√+21120000√)	221 120 000	√√	
Retained earnings	44 955 000	√	
			814 075 000
Non-current liabilities			
6.5% Debenture 2017	25 000 000		
Bank Loan	56 000 000	√ (2)	
			81 000 000
Current Liabilities			
Trade Payables	14 060 000		
Current tax payable (2721000 + 1240000)	3 961 000		
Short term provisions	3 000 000	√ (3)	
			21 021 000
Total Equity and Liabilities			**916 096 000**

12 marks

- part (e)

Answers may include

FOR purchase
Goodwill received √ Profit on realisation √ 745 600 √ o/f
£3.00 received per share which is £0.70 √ more than the share in Ngau Builders plc trading at £2.30 √
Larger firm may achieve benefits √ eg economies of scale √ and share price in Sheung Wan plc may rise in future. √
Horizontal integration √
Large liabilities on Ngau builders Statement of Financial Position √ which another company can settle √
Sheung Wan has a healthier Statement of Financial position √ and is therefore a safer investment. √
Reduces competition √

AGAINST purchase
Larger firm may lead to problems √ eg diseconomies of scale √ and share price in Sheung Wan may fall in future. √
Reduced power of shareholder from Ngau Builders plc, √ as large numbers of other shareholders in Sheung Wan Limited. √
No control in new company √

Maximum of 4 marks for arguing one side.

Conclusion
Purchase is beneficial/ not beneficial. 2 marks

8 marks

Total 32 marks