Pearson Edexcel
International Advanced Level

Accounting (Modular Syllabus)
Unit 2: Corporate and Management Accounting

Friday 16 January 2015 – Morning
Source Booklet for use with Questions 1 to 7

Paper Reference
WAC02/01

Do not return the insert with the question paper.

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PEARSON

SECTION A

SOURCE MATERIAL FOR USE WITH QUESTION 1 ON PAGES 2–8 ON THE QUESTION PAPER

1 At the start of 2015, you are the new Chief Accountant for K Khan Trading plc. The company was founded by Kalyan Khan over 60 years ago, and the majority shareholding is still held by the Khan family, who are the directors and run the business.

You find the books of account contain the following information at 31 December 2014.

Authorised share capital of £1 Ordinary shares	£10 000 000
Issued share capital of £1 Ordinary shares	£5 000 000
Authorised 7% Redeemable Preference shares of £1	£2 000 000
Issued 7% Redeemable Preference shares of £1	£1 000 000
5% Bank Loan, repayable 2017	£4 000 000
6% Debenture, redeemable 2019	£5 500 000
Net profit for year before interest and tax, 2014	£650 000
Net profit for year after interest and tax, 2014	£90 000
Retained earnings	£78 000
Ordinary dividends for 2014 paid in year	£280 000
Market price of Ordinary share	£0.74

Required:

(a) Calculate the following ratios, clearly stating the formula used.

(i) Gearing ratio

(6)

(ii) Return on capital employed

(4)

(iii) Earnings per share

(4)

(iv) Price/earnings ratio

(4)

(v) Dividend per share

(4)

(vi) Dividend cover

(4)

(vii) Dividend yield.

(4)

The Khan family have asked you to evaluate the performance of K Khan Trading plc in 2014, and evaluate the present financial position of the company.

(b) Evaluate the performance of K Khan Trading plc for the year ended 31 December 2014.

(12)

You are requested to attend a board meeting to suggest actions to improve the company's performance and financial position in 2015. Your suggestions must be specific to the position of K Khan Trading plc.

Required:

(c) (i) Explain **one** action the company could take to improve the gearing ratio.

(2)

(ii) State **two** consequences of your suggested action.

(2)

(d) Select any **three** ratios, other than the gearing ratio, and briefly explain how each ratio could be improved.

(6)

(Total for Question 1 = 52 marks)

WAC02/01 – January 2015
Mark scheme
Q1.
(a)
(i) Gearing ratio = $\frac{\text{Prior charge capital}}{\text{Capital employed}}$ x 100 √

= $\frac{1\,000\,000 + 4\,000\,000 + 5\,500\,000 \text{ √ any 2 √ 3rd}}{1\,000\,000 + 4\,000\,000 + 5\,500\,000 + 5\,000\,000 + 78\,000 \text{ √ any 3 √ next 2}}$ x 100 = 67.4% √

Other formulae for gearing are acceptable **6 marks**

(ii) Return on Capital employed = $\frac{\text{Net profit before interest and tax}}{\text{Capital employed}}$ x 100 √

= $\frac{£650\,000 \text{ √}}{£15\,578\,000 \text{ √}}$ x 100 = 4.17% √

4 marks

(iii) Earnings per ordinary share = $\frac{\text{Net profit after interest and tax less preference dividend}}{\text{Issued ordinary shares}}$ √

= $\frac{£90\,000 - £70\,000 \text{ √}}{5\,000\,000 \text{ √}}$ = 0.4 pence per share √

4 marks

(iv) Price/earnings ratio = $\frac{\text{Market price of ordinary share}}{\text{Earnings per ordinary share}}$ √

= $\frac{74\text{ p √}}{0.4\text{p o/f √}}$ = 185 times o/f √

4 marks

(v) Dividend paid per share = $\frac{\text{Total ordinary dividend paid}}{\text{Number of Issued ordinary shares}}$ √

= $\frac{£280\,000 \text{ √}}{5\,000\,000 \text{ √}}$ = 5.6 pence per share √

4 marks

(vi) Dividend cover = $\frac{\text{Net profit after interest and tax less preference dividend}}{\text{Total ordinary dividend paid}}$ √

= $\frac{£90\,000 – 70\,000 \text{ √}}{£280\,000 \text{ √}}$ = 0.07 times √

4 marks

(vii) Dividend yield = $\frac{\text{Ordinary dividend per share}}{\text{Market price of ordinary share}} \times 100$ √

= $\frac{5.6\text{p}}{74\text{p}}$ o/f √ x 100 = 7.57 % o/f √ √

4 marks

(b) **Own figure rule applies**

Strengths

Net profit before interest and tax is a good figure. √
ROCE could be said to be quite good (in present financial situation) √ possibly more than any returns in bank deposit accounts. √
Price/earnings very high (which means market has confidence in company) √ which may mean shareholders will not sell shares held. √
Dividend per share is high (which keeps shareholders happy) √ a better return than many other investments. √
Dividend yield is high (which keeps shareholders happy) √ they get a better return than many other investments. √

Weaknesses

Net profit after interest and tax is **much** lower than before interest and tax √ because there are very high interest payments (of 530 000) √ and tax payments (of 30 000). √
ROCE could be said to be quite poor √ possibly less than any returns in bank deposit accounts. √
Gearing ratio is high √ which means risk is high √ Appear to have been borrowing fairly regularly √ taking out a debenture in 2009 and a bank loan in 2014. √
EPS is very low, so poor return for investors in ordinary shares. √
Price/earnings very high (so may discourage future investors in ordinary shares) √ as it would take a very long time to get money back/recover investment made. √
Dividend per share is high (which means funds are leaving the company) √ which may give future problems eg repaying loans √ future expansion etc. √
Dividend cover is very low √, meaning company cannot afford to pay this level of dividend. √
Dividend yield is high (which means company is paying out more than it needs to) √ probably more than many other companies. √

Maximum of 8 marks for arguing one side

Conclusion 2 marks
Company has some serious problems √√
OR profitability is a problem √ and gearing √

12 marks

(c) Possible answer
(i) Reduce gearing ratio by issuing more ordinary shares √ it is possible to issue £5 m more shares √ (on existing authorised share capital)
Payback loans √ and debentures √ and preference shares √ (any 2)

2 marks

(ii) Possible answers
Family could keep control if they bought the new shares √ Or it may result in outside expertise coming to the company if outside parties buy shares √ Could use share issue to pay off bank loan √ This would reduce interest payments √
Paying back loans means a large cash outflow √ which worsens liquidity √

2 marks

(d) Possible answers
Improve ROCE by making higher profits √ by reducing costs or increasing revenue. √

Improve EPS by making higher profits. √ but difficult if a new share issue has been made. √

Increase dividend per share by increasing profits √ and/or redeeming ordinary shares √
OR Reduce dividend per share √ to retain funds in company to pay interest etc. √

Improve dividend cover by paying smaller dividends √ or making higher profits. √

Keep dividend yield high by making healthy profits √ to maintain confidence of market in company shares. √

6 marks

Total 52 marks

SOURCE MATERIAL FOR USE WITH QUESTION 2
ON PAGES 9–14 ON THE QUESTION PAPER

2 Gulf Furnishings plc produces furniture at its factory. The furniture is then delivered to Gulf Furnishings plc shops, for sale to customers.

At 31 December 2014, the following balances were in the books:

	Debit £	Credit £
Advertising and marketing	142 765	
Bad debts written off	12 255	
Bank current account		72 380
6% Bank Loan, repayable 2018		800 000
Canteen Profit		122 767
Direct materials	843 216	
Discount allowed	16 548	
Discount received on materials		41 753
Dividends received from shares in other companies		27 258
Factory buildings (at cost)	2 350 000	
Factory buildings provision for depreciation		500 000
Factory machinery (carry over value)	1 110 000	
Fuel	218 646	
Hire of photocopiers	3 120	
Interest on bank current account	7 192	
Inventory of finished goods at 1 January 2014	127 952	
Maintenance of factory machinery	27 542	
Managers' salaries	209 000	
Motor lorries (carry over value)	376 000	
Ordinary shares of £1 each		2 000 000
Power	264 935	
8% Redeemable Preference shares of £1 each		1 000 000
Rent on office premises	48 971	
Retained earnings		3 078 712
Revenue		4 482 800
Shop buildings (at cost)	4 950 000	
Shop buildings provision for depreciation		600 000
Trade payables		71 185
Trade receivables	231 670	
Vehicle running costs	88 543	
Wages	1 768 500	
	12 796 855	12 796 855

Adjustments and additional information at 31 December 2014:

- Inventory of finished goods £131 875
- Inventory of direct materials £4 897
- Advertising and marketing £12 278 owing
- Rent on office premises includes £3 767 prepaid
- Managers' salaries consist of:

	£
Finance manager	59 000
Production manager	55 000
Sales manager	50 000
Transport manager	45 000

- Power is divided between the factory and the office in the ratio 4:1
- Fuel is divided between the factory and deliveries in the ratio 1:5
- Shop staff receive a commission of 1.5% as a year end bonus on all sales made. This has yet to be entered in the books
- Wages consist of:

	£
Accountancy staff	212 870
Factory staff	828 750
Office staff	202 130
Shop staff	435 790
Delivery staff	88 960

- Assuming a nil residual value in each case and using the straight line method:
  - the factory buildings are to be depreciated over a 50–year life
  - the shop buildings are to be depreciated over a 40–year life
- The following are to be depreciated using the reducing balance method:
  - motor lorries at 30%
  - factory machinery at 25%
- A corporation tax provision for £55 000 is to be made.

Required:

(a) Using **only** the appropriate balances and adjustments, prepare for Gulf Furnishings plc, in accordance with International Accounting Standard (IAS) 1 (Revised), the Statement of Comprehensive Income for the year ended 31 December 2014. Show all workings clearly.

(40)

The directors of Gulf Furnishings plc have announced the closure of the factory in June 2015. They intend to import the furniture for sale in the shops. The costs and revenues associated with the closure will have to be treated as Exceptional Items in the accounts ending 31 December 2015.

(b) Evaluate the usefulness of the treatment to the users of the published accounts of Gulf Furnishings plc.

(12)

(Total for Question 2 = 52 marks)

Q2a

Statement of Comprehensive Income for
Gulf Furnishings plc for y/e 31st December 2014 √

Revenue	4482800	√	
Cost of sales	(2276824)	√	o/f
Gross profit	2205976	√	o/f
Other Income	150025	√	o/f
Distribution costs	(1349333)	√	o/f
Administrative expenses	(604114)	√	o/f
Financial cost	(55192)	√	o/f
Profit on ordinary activities before tax	347362	√	o/f
Corporation tax	(55000)	√	
Profit on ordinary activities after tax	292362	√o/f	√C

12 x √

W5 Financial cost **2 x** √

Interest on bank loan	48000	√
Interest on bank balance	7192	√
	55192	

TOTAL 40 marks

W1 Cost of Sales

Direct Materials	843216		
Less closing Inventory	(4897)	√ both	
Less Discount Received	(41753)	√	
Factory Depreciation	47000	√	
Machinery Depreciation	277500	√	**9 x** √
Factory Fuel	36441	√	
Factory Power	211948	√	
Machinery maintenance	27542	√	
Factory staff	828750		
Production Manager	55000	√ both	
Stock Adjustment Finished Goods	(3923)	√	
	2276824		

W2 Distribution Costs

Commission on sales	67242	√	
Sales Manager	50000		
Transport Manager	45000	√ both	
Fuel	182205	√	**8 x** √
Motor lorries depreciation	112800	√	
Advertising and Marketing	155043	√	
Shop premises depreciation	123750	√	
Running cost of vehicles	88543	√	
Shop staff wages	435790		
Delivery staff wages	88960	√ both	
	1349333		

W3Administrative Expenses

Bad Debts Written Off	12255	√	
Finance manager	59000	√	**7 x** √
Discount allowed	16548	√	
Hire of photocopiers	3120	√	
Accountancy staff wages	212870		
Office staff wages	202130	√ both	
Office premises rent	45204	√	
Office power	52987	√	
	604114		

W4 Other Income

Canteen sales	122767	√	
Dividends received	27258	√	**2 x** √
	150025		

(b)
Answers could include

IAS1 states additional line items in the Statement of comprehensive income, may be required when necessary √ to explain elements of financial performance. √

Treatment is required by law √ (Companies Act validates IAS)

When items are material √ they should be disclosed separately either on the face of the accounts, or in the notes. √

The items need to be disclosed by virtue of their size, √ or incidence √

Benefits
This will benefit users of accounts because they can see that the expense or revenue √ of the Exceptional Item will not be expected to be repeated regularly in the future. √√

Although in the normal line of business √ the Exceptional Item should be disclosed because of its size. √

This allows the reader to predict more accurately √ future expected performance.√

This may help future potential investors / shareholders √ trade payables √ banks √ (maximum of 2) with decision making. √

Should be beneficial if required to be shown by IAS / FRS√

Disadvantages
Adds more figures and details to the accounts √ so makes them more difficult to understand. √

More time and money spent producing accounts √

Competitors may gain an advantage if they see this detail in the accounts. √

Maximum for arguing only one side 8 x √ = 4 marks

Evaluation
Should conclude that it is beneficial to disclose Exceptional Items. √√

12 marks

TOTAL 52 Marks

SOURCE MATERIAL FOR USE WITH QUESTION 3
ON PAGES 15–21 ON THE QUESTION PAPER

3 Karnapul Mills Limited produces clothing at its factory. As a member of the finance department, you have been asked to look at the performance of the Blouse section for the first week of January 2015.

- The section employs 5 workers.
- The production target for the week is 600 blouses, which must be met.
- Each member of staff has a target output of 120 blouses per week.
- The standard cost of producing one blouse is:
  - 20 minutes labour, with labour being paid £5.90 per hour.
  - 3 square metres of cotton material at 26 pence per square metre.
- Labour is scheduled to work 8 hours a day, 5 days a week
- Any overtime worked over and above 40 hours a week is paid at the rate of £8.10 per hour.

The staff production sheets for the Blouse section for the first week of January 2015 show the following details.

Staff Production Sheet		
Name	Hours	Production Units
Rubia Banerjee	40	120
Mohon Biswas	40	112
Susmita Ghosh	43	120
Zahir Huq	44	111
Chadni Sengupta	40	137

Required:

(a) For the planned production of 600 blouses for the first week in January, calculate the:

(i) standard labour cost of production

(2)

(ii) actual labour cost of production

(3)

(iii) labour efficiency variance

(4)

(iv) labour rate variance

(4)

(v) total labour variance.

(2)

The Delivery Notes for the Blouse section for the first week of January 2015 show:

Delivery Notes		
Date	Supplier	Quantity (square metres)
January 3	Chattigong Textiles Ltd	720
January 5	Chattigong Textiles Ltd	720
January 6	Nazir Looms Ltd	720

- Opening stock of cotton material at the start of the week was 220 square metres, purchased at £0.28 per square metre.
- Closing stock of cotton material at the end of the week was 460 square metres.

The Purchases Day Book shows the following entries:

Purchases Day Book			
Date	Supplier	Invoice No.	£
January 3	Chattigong Textiles Ltd	0006	£201.60
January 5	Chattigong Textiles Ltd	0018	£201.60
January 6	Nazir Looms Ltd	0023	£201.60

All cotton material purchased in the first week of January was bought for the same price.

Required:

(b) Calculate the purchase price of cotton material per square metre.

(3)

(c) For the planned production of 600 blouses for the week, calculate the:

(i) actual material cost of production

(3)

(ii) standard material cost of production

(2)

(iii) material usage variance

(4)

(iv) material price variance

(4)

(v) total material cost variance.

(2)

(d) Calculate for the first week of January the:

(i) total standard cost of producing 600 blouses.

(2)

(ii) total actual cost of producing 600 blouses.

(2)

Consider the information shown on the Staff Production Sheet.

(e) Recommend possible changes to the allocation of overtime to each member of staff that would improve the performance of the Blouse section.

(3)

(f) Evaluate the performance of the Blouse section for the first week of January, including recommendations for the future of the Blouse section.

(12)

(Total for Question 3 = 52 marks)

Q3

(a)

(i) Standard labour cost = (5 x 40 x £5.90) √ = £1 180 √ **(2)**

(ii) Actual labour cost = (200 x £5.90) √ + (7 x £8.10) √ = £1 180 + £56.70 = £1 236.70 √ **(3)**

(iii) Labour efficiency variance = (Actual hours – Standard hours) x Standard rate

= (207 √ – 200 √) x 5.90 √ = £41.30 Adv √ **(4)**

(iv) Labour rate variance = (Actual rate – standard rate) x Actual hours

$= \left(\frac{1236.70\ \surd}{207} - £5.90\ \surd\right) \times 207\ \surd$

= (£5.974 - £5.90) x 207 = £15.32 (£15.40) Adv √ **(4)**

(v) Total labour variance = Actual labour cost - Standard labour cost

= (£1 236.70 - £1 180) √ o/f = £56.70 Adv √ o/f

O/f applies if a(iii) and a(iv) are added together **(2)**

(b)

Actual purchase price of material per square metre $= \frac{£604.80\ \surd}{2\ 160\ \surd}$ (OR $\frac{£201.60\surd}{720\ \surd}$) = £0.28 √

(3)

(c)

(i) Actual material cost of production

= (220 x £0.28) √ + (1700 x £0.28) √ = £537.60 √ **(3)**

(ii) Standard material cost of production = (£0.26 x 3 x 600) √ = £468 √ **(2)**

(iii) Material usage variance = (Actual usage - Standard usage) x Standard price

= ((220 + 720 + 720 + 720 – 460) – 1800) x £0.26

= (1 920 √ – 1800 √) x £0.26 √ = £31.20 Adv √ **(4)**

(iv) Material price variance = (Actual Price - Standard price) x Actual usage

= (£0.28 √ o/f - £0.26 √) x 1920 √ = £38.40 Adv √ **(4)**

(v) Material cost variance = Actual material cost - Standard material cost

= (£537.60 - £468) √ o/f = £69.60 Adverse √ o/f

O/f applies if c(iii) and c(iv) are added **(2)**

(d)
(i) Total standard cost = standard labour + standard material

= (£1 180 + £468) √ o/f = £1 648 √
O/f applies if a(i) and c(ii) are added **(2)**

(ii) Total actual cost = actual labour + actual material

= (£1 236.70 + £537.60) √ o/f = £1 774.30 √ o/f

O/f applies if a(ii) and c(i) are added together **(2)**

(e) Maximum of three marks for answers concerning individuals

Susmita is not efficient, and needs overtime to fulfil quota so suggest reduce overtime. √
Zahir is inefficient – does overtime and still cannot meet quota, suggest reduce overtime. √
Mohon is inefficient – does not meet target, do not give overtime to him. √
Chadni is very efficient, surpasses quota in normal time, suggest give overtime to her. √
Rubia meets deadline so is efficient – can be given overtime √

Maximum of 2 marks if candidate argues in general terms, not mentioning individual workers.
Eg no or little overtime is permitted √ which may make all workers more efficient √

(3)

(f)
Performed poorly
Variances are adverse √ maximum of 2 ticks for reasons eg inefficient labour √ or expensive material √

Labour efficiency – could improve training, √ especially to Mohon, Susmita, and Zahir. Any 2. √
Labour rate – perhaps pay overtime at standard rate, √ especially if 120 target not met √
Material usage – better training of staff, √ or buy better quality material √ or new machinery. √
Material price – look for alternative suppliers √ or negotiate better prices √ or pay quickly to ensure discounts. √

Performed well
Section may be efficient, √ it is just that the standards set are unrealistic.√ maybe they are not reviewed regularly √ in which case review and change standards √
Some workers are efficient and meet or surpass targets √ ie Rubia and Chadni. √
Overall, the department has met its production target. √

Maximum of 8 marks if argued one side only.

Conclusion 2 marks
Blouse section has probably performed poorly. √√

(12)

Total 52 marks

SOURCE MATERIAL FOR USE WITH QUESTION 4
ON PAGES 23–26 ON THE QUESTION PAPER

4 East African Newspapers plc is to take over KKC News Ltd on 1 January 2015. East African Newspapers plc will acquire all the assets, except cash and cash equivalents, and all the liabilities except the overdraft. Some of the assets and liabilities of KKC News Ltd will be revalued.

The Statement of Financial Position of KKC News Ltd at 31 December 2014 is shown below.

Statement of Financial Position of KKC News Ltd at 31 December 2014		
Assets	£	£
Non-current Assets		
Property, plant and equipment	79 095 000	
Intangible assets	2 100 000	
		81 195 000
Current Assets		
Inventories	1 100 000	
Trade and Other receivables	560 000	
Cash and cash equivalents	990 000	
		2 650 000
Total Assets		**83 845 000**
Equity and Liabilities		
Equity		
Ordinary Shares of £1 each	50 000 000	
Share Premium	17 500 000	
General reserve	1 000 000	
Retained earnings	2 640 000	
Total Equity		71 140 000
Non-current liabilities		
Bank Loan	10 000 000	
		10 000 000
Current Liabilities		
Trade and Other payables	230 000	
Current tax payable	275 000	
Overdraft	2 200 000	
		2 705 000
Total Equity and Liabilities		**83 845 000**

Additional information:

The assets and liabilities of KKC News Ltd were revalued as follows:

- Property with a book value of £11 500 000 to a current market value of £12 700 000
- Plant with a book value of £2 450 000 was reduced by £165 000
- Equipment with a book value of £1 760 000 was reduced by 20%
- Intangible assets were reduced to a figure of £525 000
- Inventories were reduced to a net realisable value of £863 000
- Trade Receivables were reduced by 10% to cover bad debts
- Current tax payable agreed with tax authorities was reduced to a figure of £210 000

Goodwill was agreed at £4 000 000

Required:

(a) (i) Define the accounting term goodwill.

(2)

(ii) State **two** reasons why goodwill may occur.

(2)

(b) Calculate the purchase price of KKC News Ltd.

(10)

The purchase of KKC News Ltd is to be financed by the issue of £1 Ordinary shares in East African Newspapers plc. The shares are trading at a premium of £1.50 per share, and this trading value was the price agreed for the shares used to purchase KKC News Ltd.

(c) Calculate the number of shares to be issued by East African Newspapers plc to shareholders of KKC News Ltd.

(4)

(d) Prepare the Acquisition Account in the books of East African Newspapers plc to show the purchase of KKC News Ltd.

(6)

East African Newspapers plc financed the purchase of KKC News Ltd by an issue of shares in East African Newspapers plc.

(e) Evaluate the use of issuing shares to finance the purchase of another company.

(8)

(Total for Question 4 = 32 marks)

Q4.

(a) (i) Goodwill is a sum paid in excess of the fair / agreed value √ of net assets acquired when purchasing a business √.

2 marks

(ii) Any two from

Existing customer base √ Supply channels set up √ Suitable location √ Skilled workers √
Reputation of business √ Brand awareness √ Loyal staff √ Profitable business √

2 marks

(b)

Calculation of Purchase Price			
Property, plant and equipment	+ 1 200 000√ - 165 000√ - 352 000√	79 778 000	√
Intangibles		525 000	
Inventories		863 000	√ both
Trade and Other Receivables	- 56 000	504 000	√
Bank Loan		(10 000 000)	
Trade and Other Payables		(230 000)	√ both
Current tax payable		(210 000)	√
Goodwill		4 000 000	√
Purchase price		75 230 000	√o/f

10 marks

(c)

Shares issued = $\frac{75\ 230\ 000\surd\ o/f}{£2.50\ \surd\surd}$ = 30 092 000 shares √ o/f

4 marks

(d)

Acquisition account							
Jan1	Property, Plant, + Equipment	79 778 000	both	Jan 1	Bank loan	10 000 000	both
	Intangibles	525 000	√o/f		Trade Payables	230 000	√o/f
	Inventories	863 000	both		Current Tax payable	210 000	all 3
	Trade Receivables	504 000	√o/f		Purchase price		
	Goodwill	4 000 000	√o/f		£1 Ordinary shares	30 092 000	o/f
					Share premium	45 138 000	√o/f
		85 670 000				85 670 000	√o/f

6 marks

(e)

<u>For financing using shares</u>
Does not require any use of cash √ which would be a drain on liquid resources. √
If the market thinks the deal is a good one √ the value of all shares in buying company will rise, √ keeping shareholders happy. √
Improves gearing ratio √
No need to payback shareholders √
No capital repayment required unlike loans √
Dividends only need to be paid when profits are healthy √ unlike interest payments on loans that must take place √
No need to offer collateral √

<u>Against financing using shares</u>
If the market thinks the deal is a bad one √ the value of all shares in buying company will fall, √ making shareholders unhappy. √
Memorandum of Association √ may mean it is not possible to issue more shares, √or may need to get approval from Stock Exchange Council √ to alter Memorandum and issue more shares. √
Number of shareholders in buyer rises √ so dilution of powers of existing shareholders. √
More dividends will be paid to a greater number of shareholders √ which may result in lower dividends per share √
Issuing of shares results in extra costs etc √

Maximum of 4 marks for arguing one side only
<u>Conclusion</u> – 2 marks
Financing purchase of another company is good/ not good idea. **8 marks**

Total 32 marks

SOURCE MATERIAL FOR USE WITH QUESTION 5 ON PAGES 27–31 ON THE QUESTION PAPER

5 Andros owns a business producing and selling ice cream. The ice cream is produced in a factory and ice cream sellers then sell from bicycles, trays and freezers in areas popular with tourists. Andros is reviewing the accounts for 2014, and considering changes for 2015.

The following information is available for the year ended 31 December 2014.

- Rent of factory £775 per month
- Depreciation on assets £2 800 per year
- Direct labour in production was paid £0.25 per ice cream
- Electricity bill £935 a quarter (3–month period) plus £0.02 per ice cream
- Insurance for the year £1 420
- Material costs per ice cream £0.16
- The manager's salary £1 000 per month
- Selling price of an ice cream £1.30
- Sales of ice creams are 1400 ice creams per seller per month.
  There are 11 ice cream sellers
- Ice cream sellers receive a direct wage of £0.40 for each ice cream sold
- Loan interest £225 per month
- All production was sold.

Required:

Calculate for the year ended 31 December 2014 the:

(a) number of ice creams to be sold to break even

(11)

(b) margin of safety in sales units

(3)

(c) profit for the year.

(5)

Andros wishes to increase his profit by 5% next year. His believes that all costs and revenues will stay the same next year, except rent. The rent for 2015 will be £800 per month. However, Andros is reviewing the performance and the salary of the manager.

Required:

(d) Calculate how much Andros would need to pay the manager per year to achieve his profit target.

(5)

Andros is considering whether to move the manager from a fixed salary to a payment related to the number of ice creams sold.

Required:

(e) Evaluate the possible decision to move the manager from a fixed salary to a payment related to the number of ice creams sold.

(8)

(Total for Question 5 = 32 marks)

Q5.

(a)

Fixed Costs - per year		Variable costs per unit
		(0.25 + 0.02 + 0.16 + 0.40) √
Rent	£9 300	Total £0.83 per unit √
Depreciation	£2 800 √ both	
Electricity	£3 740	
Insurance	£1 420 √ both	Contribution per unit
Manager	£12 000	
Loan	£2 700 √ both	(£1.30 - £0.83 o/f) √ = £0.47 √ o/f
Total FC	£31 960 √ o/f	

Break Even Point = $\frac{\text{£31 960 o/f } \surd}{\text{£0.47 o/f } \surd}$ = 68 000 ice creams o/f √ **11 marks**

(b) Margin of safety = 184 800 √ - 68 000 √ o/f = 116 800 units √ o/f **3 marks**

(c) Profit for 2014

Sales = 1400 x 12 x 11 = 184 800 units √
Sales revenue = 184 800 x 1.30 = £240 240 √
Less VC = 184 800 x 0.83 o/f = £153 384√o/f
Less FC = £31 960 √o/f
Profit = £54 896 √o/f

5 marks

(d) New profit = £54 896 x 1.05 = £57 640.80 o/f √

Increase in profit = £2 744.80 o/f √

Increase in rent = £25 x 12 = £300 √

So managers pay must fall by £3 044.80 o/f √

So new pay must be £12 000 - £3 044.80 = £8 955.20 o/f √ **5 marks**

(e)

If moved to the variable rate

For

Business has profit target √ and has to take action to achieve these targets. √
May not possible to decrease other costs, √ especially if fixed eg loan repayment, rent etc √
May not be possible to increase selling price to increase profit, √ as will result in reduced sales √
Manager may be motivated and improve performance / increase output √ eg train staff better to increase sales √ which may result in increased market share √ also in higher profits for business √ and higher pay for the manager √

Against

Manager is concerned only with output so quality may suffer √ and there may be more accidents √ and manager may put workers under more pressure which demotivates √
Budgeting for the managers salary maybe more difficult √ due to fluctuations in sales and output √
A rise in variable costs may raise the break even point√ (but remember fixed costs will rise √)

If stays on the fixed rate.

For

Managers are professionals and are usually paid a salary √ and changing to payment by linking to production may demotivate √

Against

Manager will be de-motivated √ if forced to take pay cut √
This is likely to effect running of the business√ in a negative way√
Could try to reduce other costs instead √ eg shop around for lower insurance. √
A reduction in fixed costs may lower the break even point√ (but remember variable costs will rise√)

Maximum of 4 ticks for arguing one side – for or against variable rate/fixed rate.

Conclusion - Two √√
It is a good/bad idea to move to variable rate. **8 marks**

Total 32 marks

SOURCE MATERIAL FOR USE WITH QUESTION 6
ON PAGES 32–35 ON THE QUESTION PAPER

6 The directors of Asia Telecoms plc are considering installing a broadband connection to the city of Alzapur. The following information is available.

- The initial cost of the project will be £50 million.
- The city of Alzapur has an estimated 500 000 computer users.
- In year 1, market research shows 25% of computer users will connect and pay the annual subscription fee.
- After purchase, all customers will continue to pay the annual subscription fee for future years.
- In year 2, **another** 20% of computer users will connect and pay the annual subscription fee.
- In years 3, 4, and 5, **another** 10% of users will sign up **each** year.
- Users will be charged £9 a month for a broadband subscription.
- To connect each user there will be a once only expense to the company of £50
- **Other** running costs for the project will be:
  - Year 1 – £10m including £5m depreciation
  - Year 2 – £16m including £5m depreciation
  - Year 3 – £20m including £6m depreciation
  - Year 4 – £22m including £6m depreciation
  - Year 5 – £24m including £7m depreciation.
- The cost of capital for the project is 8%
- The directors of Asia Telecoms plc require major projects to have a positive net present value after 5 years.

The discount factors for 8% are

Year 1 0.926 Year 2 0.857 Year 3 0.794 Year 4 0.735 Year 5 0.681

Required:

(a) Calculate the net present value of the project after 5 years.

(24)

(b) Evaluate the project on behalf of Asia Telecoms plc.

(8)

(Total for Question 6 = 32 marks)

Q6

6a

Sales	Users	Charge					
Year 1	125000	13500000	√				
Year 2	225000	24300000	√				
Year 3	275000	29700000	√				
Year 4	325000	35100000	√				
Year 5	375000	40500000	√				
Running costs			Connectns		Other	Total	
Year 1	125000	50	6250000		5000000	11250000	√
Year 2	100000	50	5000000	√(2)	11000000	16000000	√
Year 3	50000	50	2500000		14000000	16500000	√
Year 4	50000	50	2500000		16000000	18500000	√
Year 5	50000	50	2500000	√(3)	17000000	19500000	√
NPV			Net		Discount	Discounted	
	Inflow	Outflow	Cash Flow		Factor	Net Cash Flow	
Year 0		-(50000000)			1	(50000000)	√
Year 1	13500000	(11250000)	2250000	√ o/f	0.926	2083500	√ o/f
Year 2	24300000	(16000000)	8300000	√ o/f	0.857	7113100	√ o/f
Year 3	29700000	(16500000)	13200000	√ o/f	0.794	10480800	√ o/f
Year 4	35100000	(18500000)	16600000	√ o/f	0.735	12201000	√ o/f
Year 5	40500000	(19500000)	21000000	√ o/f	0.681	14301000	√ o/f
						(3820600)	√ o/f

24 marks

6(b) Evaluation
Answers may include:
Own figure rule applies

Case for Project
Net cash flow is positive from year 1/every year. √
NPV will be positive very soon /Year 6 √
Users will probably continue to rise in future√

Case Against Project
NPV method states do not invest √ as NPV is negative √ o/f
NPV is a good method to use √ as it includes falling value of money over time√

Other Relevant Points
Other investment appraisal methods should be used √ eg payback or average rate of return √
How accurate are the predictions √ for costs, cost of capital, and revenues? √
Is the 5 year payback time period appropriate? √ for a project such as this where users build up over the years √
Other possible investment projects available at present? √ More or less profitable? √
Objectives/strategy of company? √ Is this investment in line with objectives? √
Asia telecoms may face competition√ which may limit expansion √

Maximum of 4 marks for arguing one side

Conclusion - 2 marks
Company should not invest √ because of negative NPV after 5 years √
OR company should invest √ because NPV is likely to be positive after more than 5 years √

8 marks
Total 32 marks

SOURCE MATERIAL FOR USE WITH QUESTION 7 ON PAGES 36–39 ON THE QUESTION PAPER

7 Footprint Ltd produces four different types of footwear at its factory: shoes, boots, trainers, and sandals.

The following information is available for the factory for the month ended 31 December 2014:

	Shoes	Boots	Trainers	Sandals
Direct labour	£65 000	£32 000	£96 000	£24 000
Direct materials	£50 000	£36 000	£72 000	£27 000
Semi-variable costs	£5 per unit + fixed element £10 000	£2 per unit + fixed element £2 000	£4 per unit + fixed element £8 000	£1 per unit + fixed element £3 000
Fixed costs	£25 000	£4 000	£32 000	£3 000
Output (units)	5 000	2 000	8 000	3 000
Selling price	£30	£35	£39	£18

All output was sold.

Required:

(a) Calculate the profit or loss for **each** of the four types of footwear, for the month ended 31 December 2014.

(8)

(b) Calculate the contribution and the profit or loss made by **each** of the four types of footwear, **per unit**, for the month ended 31 December 2014.

(16)

(c) Evaluate the calculations in (b) and make a decision about the future production of **each** of the four types of footwear.

(8)

(Total for Question 7 = 32 marks)

Q7.

a)	Shoes		Boots		Trainers		Sandals	
Sales Revenue	150000		70000	√	312000		54000	√
				(2)				(2)
Direct Labour	65000		32000		96000		24000	
Direct Materials	50000		36000		72000		27000	
Semi-VC Variable	25000		4000	√	32000		3000	√
Fixed Costs	35000		6000	(all 8)	40000		6000	(all 8)
Profit (Loss)	-25000	√ o/f	-8000	√ o/f	72000	√ o/f	-6000	√ o/f
							8 marks	
Production	5000		2000		8000		3000	
b) Per Unit	Shoes		Boots		Trainers		Sandals	
Sales Revenue	30		35		39		18	
Direct Labour	13	√	16	√	12	√	8	√
Direct Materials	10		18		9		9	
Semi-VC Variable	5	√	2	√	4	√	1	√
Fixed Costs	7		3		5		2	
Profit (Loss)	-5	√ o/f	-4	√ o/f	9	√ o/f	-2	√ o/f
Contribution	2	√ o/f	-1	√ o/f	14	√ o/f	0	√ o/f
							16 marks	
c) o/f rule applies	*Shoes		Boots		Trainers		*Sandals	
Short Term	Continue	√	Stop		Continue		Stop/Continue	√
			ST or LT	√	ST or LT	√		
Long Term	Stop	√	Stop		Continue		Stop	√

*Shoes and Sandals must make mention to time period (ST or LT) for √
Plus two possible extra marks:
Maximum of 1 √ if correct mention made of positive contribution / or negative contribution anywhere
OR correct mention of marginal costing anywhere √
√ if reason given for supporting decision in ST for Sandals eg expect costs to increase or decrease in future.
If one department closes √ fixed costs may have to be reallocated to other departments √ which may mean that department/ whole business makes a loss. √
Footprint Ltd should use resources to increase production of trainers √

8 marks

Total 32 marks