UNIVERSITY OF LONDON | INTERNATIONAL PROGRAMMES

Course information 2015–16
AC1025 Principles of accounting

This course provides an introduction to financial and management accounting. It is aimed at providing a broad understanding of the theory and practice of financial accounting, management accounting and financial management, both for non-specialist students and as a foundation for further study in the area.

This course does not focus on the technical aspects, but rather examines the basic principles and underlying concepts and the ways in which accounting statements and financial information can be used to improve the quality of decision-making.

Prerequisite

None apply.

Please note that people who are professionally qualified in the accountancy field, who would now like to take a degree may apply for exemption from this paper.

Aims and objectives

- introduce you to the principles underlying accounting
- enable you to apply, interpret and explain key accounting techniques
- provide a broad understanding of the theory and practice of financial and management accounting.

Essential reading

Leiwy, D. and Perks, R. *Accounting: Understanding and Practice,* McGraw-Hill

Assessment

This course is assessed by a three hour fifteen minute unseen written examination which includes reading time.

Learning outcomes

At the end of this course and having completed the essential reading and activities students should be able to:

- ☑ distinguish between different uses of accounting information and relate these uses to the needs of different groups of users
- ☑ explain the limitations of such statements and their analysis
- ☑ categorise cost behaviour, and prepare and contrast inventory valuations under different costing methods
- ☑ describe the budgeting process and discuss the use of budgets in planning and control
- ☑ explain, discuss and apply relevant techniques to aid internal users in decision-making.

Students should consult the *Programme Regulations for degrees and diplomas in Economics, Management, Finance and the Social Sciences* that are reviewed annually. The Prerequisites, Exclusions, and Syllabus are subject to confirmation in the *Regulations.* Notice is also given in the *Regulations* of any courses which are being phased out and students are advised to check course availability.

Syllabus

This is a description of the material to be examined, as published in the *Regulations*. On registration, students will receive a detailed subject guide which provides a framework for covering the topics in the syllabus and directions to the essential reading.

This course is designed to introduce you to accounting and financial management. Traditionally concerned with measuring, recording and reporting financial transactions and events, modern accounting provides a broad range of information for a wide variety of users. Financial accounting and reporting is primarily concerned with the needs of users outside the business, such as shareholders, regulators and creditors. In contrast, management accounting and financial management is concerned with the needs of users who are internal to the business, such as directors, managers, and employees.

The course is arranged in two sections. The first section introduces and explains financial accounting concepts and conventions, and provides a grounding in double-entry bookkeeping and the preparation of the primary financial statements. The second section introduces a range of applications and techniques for planning, decision-making and control.

Section 1 Financial accounting

Accounting harmonisation and International Financial Reporting Standards. Accounting concepts and conventions: their nature, purposes and limitations. How to prepare and interpret financial statements: 'Statement of Financial Position', income statement and statement of cash flows. Analysis and interpretation of financial statements.

Section 2 Management accounting and financial management

Cost behaviour, marginal and total absorption costing for inventory. Cost-volume-profit analysis. Introduction to budgetary planning and control, including standard costs, targets, and variance analysis. Making capital investment decisions.

Examiners' commentaries 2015

AC1025 Principles of accounting

Important note

This commentary reflects the examination and assessment arrangements for this course in the academic year 2014–15. The format and structure of the examination may change in future years, and any such changes will be publicised on the virtual learning environment (VLE).

Information about the subject guide and the Essential reading references

Unless otherwise stated, all cross-references will be to the latest version of the subject guide (2015). You should always attempt to use the most recent edition of any Essential reading textbook, even if the commentary and/or online reading list and/or subject guide refer to an earlier edition. If different editions of Essential reading are listed, please check the VLE for reading supplements – if none are available, please use the contents list and index of the new edition to find the relevant section.

Comments on specific questions – Zone A

Candidates should answer **FOUR** of the following **SEVEN** questions: **QUESTION 1** of Section A, **QUESTION 2** of Section B, **ONE** question from Section C and **ONE** further question from either Section B or C. All questions carry equal marks. Workings should be submitted for all questions requiring calculations. Any necessary assumptions introduced in answering a question are to be stated.

Section A

Answer question 1 from this section.

Question 1

(a) **Pocket runs a small shop. The accounting year end of his business is 30 June. On the morning of 29 June 2014 a fire in the shop destroyed all of the inventory and the computer on which the accounting records were maintained. Pocket is preparing an insurance claim for the lost inventory and has compiled the following information from the remaining records:**

(1) **The balance at bank on 1 July 2013 was £2,000 and cheques totalling £158,800 had been paid out up to the end of 28 June 2014. All takings are banked and no cash was left in the till on 28 June. The bank balance at that date was £3,000.**

(2) **Purchases of books represent approximately 80% of the cheques paid and there were no opening or closing creditors.**

(3) **Pocket has one customer who is given credit terms and this customer owed £1,000 on 1 July 2013 and £1,400 on 28 June 2014.**

(4) The business operates at a consistent gross profit percentage of 25%.

(5) Inventory in hand at 1 July 2013 was £23,600.

Required:

Give calculations to show inventory on hand before the fire on 29 June 2014 as far as it can be calculated from the above information.

(6 marks)

Reading for this question

Subject guide, Chapter 3.

Perks R, and Leiwy D. (2013) Chapters 2 and 9.

Approaching the question

The ability to prepare accounting information from incomplete information is an important learning outcome of the course. The question requires the calculation of a missing inventory figure by reconstructing the Income Statement. A logical approach of working is essential.

Calculation of cost of destroyed inventory as at 29th June 2014

Sales		160,200
Cost of sales:		
Opening stock	23,600	
Purchases	127,040	
	150,640	
Closing stock		
(Bal fig)	30,490	120,150
Gross profit		40,050

Insurance claim = £30,490

Workings

1. Bank account

Opening balance	2,000
Cheques paid out	(158,800)
Closing balance	(3,000)
Bankings	159,800

2. Purchases

158,800 × 80% = 127,040

3. Sales

Opening debtor	(1,000)
Closing debtor	1,400
Cash banked	159,800
	160,200

4. Gross profit

160,200 × 25% = 40,050

(b) Distinction is often made between financial and management accounting. Explain the differences between these two types of accounting.

(6 marks)

Reading for this question

Subject guide, Chapter 1 (pp.17–20).

Perks R, and Leiwy D. (2013) Chapter 13.3.

Approaching the question

Candidates need to understand the purpose, context and methods used in both financial and management accounting. This question requires you to demonstrate this by identifying the differences between the two types of accounting. Answers should not be two lists but should highlight the key differences between the two types of accounting.

Financial accounting

- Is concerned with the preparation of accounting information for the needs of users who are external to the business.
- Prepared on a periodic basis (most companies publish their financial statements only once a year, in the annual report
- Based on past events and historic data
- Comprised solely of financial information.
- Governed by rules and regulations.

Management accounting

- Is concerned with the preparation of accounting information for the needs of users who are internal to the business.
- Prepared frequently, as and when it is needed (most large businesses will prepare some information on a monthly basis and many use daily accounting information).
- More likely to contain forward looking information (such as forecasts and budgets).
- More likely to incorporate non-financial information (such as quantities of products sold or number of customer complaints).
- Not regulated (managers are free to produce whatever information they need in whatever format is most helpful to them, subject to available data and technology).

(c) The following unit data relate to Barkis Ltd which manufactures four different products.

Product	**A**	**B**	**C**	**D**
Annual sales (units)	**2,000**	**3,100**	**2,500**	**2,750**
Price/cost data per unit	£	£	£	£
Selling price	**60**	**108**	**58**	**50**
Direct materials	**20**	**40**	**12**	**16**
Direct labour	**24**	**48**	**10**	**24**

All four products are produced using the same material that costs £8 per kg and is currently in short supply. Due to the supply difficulties only 20,000 kg is available for the period in question. Fixed costs amount to £24,000 for this period.

Required:

i. Calculate an optimum production plan for the forthcoming year and show the maximum profit that can be earned.

(5 marks)

ii. Identify two non-financial factors that the management should consider before finalising the production plan.

(1 mark)

Reading for this question

Subject guide, Chapter 10 (pp.175–77).

Perks R, and Leiwy D. (2013) Chapter 17.

Approaching the question

A key learning outcome of this course is to explain and apply decision making techniques using accounting information. This question tests your understanding of contribution analysis and limiting factors. It is important that answers calculated the contribution per unit of limiting factor in reaching the optimum mix of products. Answers to part (ii) needed to be specific in identifying non-financial factors relevant to the question.

i. Barkis.

Contribution calculations.

Product	**A**	**B**	**C**	**D**
	£	£	£	£
Selling price per unit	60	108	58	50
Less Variable cost per unit:				
Direct materials	20	40	12	16
Direct labour	24	48	10	24
	44	88	22	40
Contribution per unit	16	20	36	10
Limiting factor				
Direct material at £8 / kg	2.5 kg	5 kg	1.5 kg	2 kg
Contribution per kg of Direct material	6.4	4	24	5
Ranking	2	4	1	3

Production plan	**Units**	**Quantity of Direct material kg**	**Cumulative quantity of Direct material kg**	**Contribution £**	**Cumulative Contribution £**
C	2,500	3,750	3,750	90,000	90,000
A	2,000	5,000	8,750	32,000	122,000
D	2,750	5,500	14,250	27,500	149,500
B	1,150	5,750	20,000	23,000	172,500
Total		20,000			172,500
Less					
Fixed costs					24,000
Profit					148,500

ii. Marketing and other implications:

* Loss leaders
* Sub-contracting
* Valued customers
* Inter-dependent demand
* Loss of range
* Image, etc.

(d) Rudge Ltd makes two products, X and Y, each of which passes through two production departments. Budgeted production is 50,000 units of each product and fixed overheads are absorbed on the basis of direct labour hours. The following budgeted data are available for April 2015:

	Department 1	Department 2
Fixed overheads	**£440,000**	**£300,000**
Variable overhead per hour	**£3.00**	**£2.50**
Direct labour hours per unit of X	**5 hours**	**3 hours**
Direct labour hours per unit of Y	**6 hours**	**4 hours**

The actual production for April 2015 was:

Product X 48,000 units

Product Y 54,000 units

All actual costs and labour hours per unit were as budgeted.

Required:

i. Calculate the total budgeted cost of variable overheads for Department 2 in April 2015.

(2 marks)

ii. Calculate the budgeted fixed overhead absorption rate for Department 1 in April 2015.

(2 marks)

iii. Calculate the under or over recovery of fixed overheads for Department 1 in April 2015.

(3 marks)

Reading for this question

Subject guide, Chapter 9 (pp.155–60).

Perks R, and Leiwy D. (2013) Chapter 14.

Approaching the question

The learning outcomes of this module refer to the ability to apply costing methods including absorption costing. This question requires the calculation overheads, absorption rates and over recovery. The approach should be to carefully identify the relevant amounts from the data. The calculations were then relatively straight forward. Care should be taken in reading the requirements for example (i) related to Department 1 but (ii) and (iii) to Department 2.

Rudge

i. Department 2 – budgeted variable overheads

			£
X	$3 \times 2.50 \times 50{,}000$	=	375,000
Y	$4 \times 2.50 \times 50{,}000$	=	500,000
			875,000

ii. Department 1 – budgeted fixed overhead absorption rate

$$440,000/(50,000 \times 5 \times 50,000 \times 6) \quad = \quad 0.80$$

iii. Department 1 fixed overhead over recovery

Overhead applied to production

X	48,000 × 5 × 0.8	=	192,000
Y	54,000 × 6 × 0.8	=	259,200
			451,200
Actual			400,000
Over recovery			11,200

N.B. Alternative calculation:

B	550,000 hours		
A	564,000 hours		
	14,000 × 0.8	=	11,200

Section B

Answer question 2 and not more than one further question from this section.

Question 2

The following is the trial balance of Pickwick plc at 31 January 2015:

	£	£
Sales		**4,958,810**
Purchases	**2,798,336**	
Inventories at 1 February 2014	**177,610**	
Distribution costs	**225,710**	
Power	**99,174**	
Telephone	**16,266**	
Bad debt expense	**13,274**	
Provision for doubtful debts at 1 February 2014		**8,616**
Wages	**831,812**	
Directors' remuneration	**344,148**	
Administration expenses	**397,276**	
Dividends paid	**50,400**	
Equity Share capital (£1 shares)		**400,000**
5% Loan stock		**250,000**
Share Premium		**80,680**
Retained earnings at 1 February 2014		**257,106**
Fixtures and Fittings at cost	**982,270**	
Fixtures and Fittings, accumulated depreciation at 1 February 2014		**433,750**
Motor vehicles at cost	**647,740**	
Motor Vehicles, accumulated depreciation at 1 February 2014		**184,730**
Trade receivables	**577,480**	
Trade payables		**573,240**
Bank		**16,164**
Cash	**1,600**	
	7,163,096	**7,163,096**

Additional information

(1) Inventories at 31 January 2015 are valued at £188,266.

(2) Directors' bonuses for the year ended 31 January 2015 calculated at £11,160 have not been accounted for.

(3) Distribution costs include a payment of £37,500 for rent for the three months to 31 March 2015.

(4) The company's depreciation policies are as follows:

Fixtures and Fittings – Straight line over 5 years

Motor vehicles – Reducing balance method at 40% per annum

All non-current asset residual values are estimated at zero.

(5) The company reviwed the trade receivables at 31 January 2015 and the following adjustments are required:

- **Irrecoverable receivables of £4,534 in addition to those already written off.**
- **Specific provision for doubtful receivables of £6,812.**
- **General provision of 2% against the remaining receivables.**

(6) The interest on the loan stock is outstanding at the year end.

(7) A corporation tax refund of £30,000 for the year is estimated to be due to the company.

(8) The directors propose a final equity dividend for the year ended 31 January 2015 of 4p per share.

Required:

Prepare the following financial statements for Pickwick plc:

(a) Income statement for the year ended 31 January 2015.

(12 marks)

(b) Statement of financial position at 31 January 2015.

(13 marks)

Reading for this question

Subject guide, Chapters 4, 5 and 6.

Perks R, and Leiwy D. (2013) Chapter 18.

Approaching the question

The preparation of final accounts from structured information is a key learning outcome. A trial balance with several adjusting items has been the format for the compulsory question over recent years. In answering this type of question a methodical and organised approach is needed. It is very important that detailed, legible workings are given in order that marks are awarded for all work which is correct. If figures in the final accounts comprise a number of items, marks will be awarded accordingly. Without workings one error may result in several marks being lost. The candidates should allow examiners to award all appropriate marks. The 8-column accounting paper provided is particularly useful for presenting the financial statements. You should pay attention to the presentation of your answer, taking care to use the appropriate descriptions of line items in the income statement and statement of financial position.

(a) **Pickwick plc**

Income Statement for the year ended 31 January 2015

	£	£
Sales		4,958,810
Less: Cost of sales (W1)		(2,787,680)
Gross profit		2,171,130
Less: Wages and Salaries	(831,812)	
Distribution costs $(225,710) - (2/3 \times 37,500)$	(200,710)	
Power	(99,174)	
Telephone	(16,266)	
Admin Expenses	(397,276)	
Directors' Remuneration	(344,148)	
Directors' Bonus	(11,160)	
Bad Debt Expense (13,274 + 4,534)	(17,808)	
Increase in provision (W2)	(9,518)	
Depreciation – F–FF	(196,454)	
– MV	(185,204)	(2,309,530)
Loss before interest and tax		(138,400)
Less: Finance costs (5% × 250,000)		(12,500)
Loss before Tax		(150,900)
Add: Corporation Tax		30,000
Loss for the year		(120,900)

(b) **Pickwick plc**

Statement of financial position at 31 January 2015

Non-current assets [W3]	629,872
Current assets	
Inventories	188,266
Trade receivables [W4]	554,812
Prepayments	25,000
Tax refund due	30,000
Cash	1,600
	799,678
Total assets	1,429,550
Current Liabilities	
Trade payables [W5]	596,900
Overdraft	16,164
	613,064
Non-Current Liabilities	
5% Loan stock	250,000
Equity	
Share capital	400,000
Share premium	80,680
Retained earnings	85,806
	566,486
Total equity and Liabilities	1,429,550

Workings

		£
W1	Cost of sales	
	Opening Inventory	177,610
	Purchases	2,798,336
	Closing Inventory	(188,266)
		2,787,680
W2	Provision for doubtful debts	
	Specific	6,812
	General (2% $\times(577,48-4,534-6,812)$)	11,322
	Closing provision	18,134
	Opening provision	8,616
	Increase	9,518

W3

	Cost	**Acc Depn**	**Net**
F–F	982,270	630,204[1]	352,066
MV	647,740	369,934[2]	277,806
	1,630,010	1,000,138	629,872

[1] Acc Depn B/f	433,750
Year (982,270 × 20%)	196,454
[2] Acc Depn B/f	184,730
Year (647,740 − 187,730) − 40%	185,204

		£
W4	Receivables	
	TB	577,480
	Written off	(4,534)
	Provision	(18,134)
		554,182
W5	Payables	
	TB	573,240
	Bonus	11,160
	Loan Interest	12,500
		596,900

Question 3

Barnaby Ltd is a UK family business which trades as a wholesaler, importing silk fabric from the Indian sub-continent and China and selling onto specialist curtain and upholstery retailers. During the year ended 31 December 2014 the business entered into a new contract with the local branches of a national retail chain. The business also expanded its warehouse and automated its office processes in the year.

Summarised financial statements for 2014 and 2013 for the business are shown below:

Statements of financial position at 31 December

	2014		2013	
	£	£	£	£
Non-current assets		130,000		78,750
Current assets				
Inventory	24,650		15,600	
Accounts receivable	22,850		11,275	
Bank and cash	3,750		11,700	
		51,250		38,575
Total assets		181,250		117,325
Equity		77,760		73,350
Non-current liabilities				
5% bank loan, repayable 2019		50,000		—
Current liabilities				
Accounts payable		53,490		43,975
Total equity and liabilities		181,250		117,325

Income statements for the years ended 31 December

	2014		2013	
	£	£	£	£
Revenue		382,100		289,800
Cost of sales		(275,150)		(194,170)
Gross profit		106,950		95,630
Administrative expenses	45,235		44,240	
Distribution costs	16,430		14,680	
Interest	1,875		—	
		(63,540)		(58,920)
Profit for the year		43,410		36,710

Required:

(a) Calculate the following ratios for Barnaby Ltd, for the financial years ended 31 December 2014 and 2013:

i. Return on capital employed

ii. Net profit margin

iii. Gross profit percentage

iv. Asset turnover

v. Current ratio

vi. Liquid ratio (Quick Assets ratio)

vii. Inventory turnover (in days)

viii. Receivables collection period (in days)

(10 marks)

(b) Using both the summarised financial statements and the ratios from part (a), produce a report which provides an analysis of the financial performace and position of Barnaby for the year ended 31 December 2014 in comparision with the previous year.

(10 marks)

(c) Give details of any two other pieces of information you would require to improve your analysis of the financial performance of the business, providing reasons for the requirement.

(5 marks)

Reading for this question

Subject guide, Chapter 7.

Perks R, and Leiwy D. (2013) Chapters 4 and 5.

Approaching the question

The learning outcomes of this module include the ability to analyse, interpret and communicate the information contained in financial statements. The most common analytical method is the use of accounting ratios. This technique is often tested by a mini case study of the type used in this question. It is important that answers go beyond simply stating that a particular ratio has gone up or down, the interpretation should use the contextual information given in the question and make links between different ratios. Good answers will draw conclusions from the ratios and the background information, which provide insight into the financial position and performance of the companies.

Excellent answers will use the analysis to draw appropriate conclusions which will be discussed from the perspective of potential users.

You should carefully read the requirements of the questions which in this case specify the number and nature of the ratios to be calculated. If you do not follow these instructions your work may not be marked.

There are no absolute answers to this type of question and you will be rewarded for a logical and informed analytical approach to the case described in the question.

Answers to (b) which suggested further ratios missed the point of the question and were awarded fewer marks.

(a)

			2014	**2013**
i.	ROCE	$\frac{43,410+1,875}{77,760+50,000}$	35.4%	50%
ii.	Net profit %	$\frac{43,410+1,875}{382,100}$	11.9%	12.7%
iii.	Gross profit %	$\frac{106,950}{382,100}$	28.0%	33.0%
iv.	Asset turnover	$\frac{382,100}{77,760+50,000}$	3.0	4.0
v.	Current ratio	$\frac{51,250}{53,490}$	0.96	0.88
vi.	Liquid ratio	$\frac{51,250-24,650}{53,490}$	0.50	0.52
vii.	Inventory turnover	$\frac{24,650\times365}{275,150}$	33 days	29 days
viii.	Receivables collection	$\frac{22,850\times365}{382,100}$	22 days	14 days

(b) Analysis of ratios

Financial performance

ROCE indicates the return the business has generated from the use of its capital. Despite a large fall in the ratio in 2014, it is still a healthy return, especially if compared to returns in financial institutions. Both profits and capital increased during the year, but because capital increased proportionately more (74%), from the new bank loan, this ratio has fallen in 2014, resulting in a lower return for the owner (the Barnaby family).

This is also the reason for the fall in the **asset turnover**, despite the large increase in sales. This ratio shows the value of sales generated per £1 of net assets used in the year, so it can be used to assess the efficiency of the use of assets during the year. The business has

invested heavily in assets in 2014, particularly in new non-current assets – the warehouse expansion, the new computer system – and this increase has not yet been matched by a proportionate increase in sales. This may well result in future years once the new assets are functioning fully.

The **net profit %** has also fallen, although not by a huge amount. This ratio expresses the profit the business has earned on its sales, and so the business is generating a lower margin on its sales in 2014 compared to 2013.

The fall in the asset turnover coupled with the fall in the net profit margin will lead to a fall in ROCE, given their relationship:

$$\text{ROCE} = \text{Asset turnover} \times \text{Net profit \%}.$$

The reduced net profit margin may be through trading issues or levels of overloads, so the remaining three ratios can be examined to help with this interpretation.

The **gross profit %** measures the profit earned from the trading activities of the business – the buying and selling of goods. In 2013 for every £100 of sales a profit of £33 was earned. This fell to £28 in 2014. There are many possible reasons for this for this business, and it may be a combination of these:

- The business reduced its selling prices – possibly linked to the new contract with the national chain, which may exert pressure on its suppliers.
- The business's purchase costs increased – is there a change in supplier, have unfavourable exchange rates caused this, have shipping costs or import duties increased?
- The business changed the mix of sales to lower margin goods – perhaps the national chain required fabrics of lower quality
- When the fabrics were moved to the new warehouse they got damaged and had to be written off or sold at lower prices
- There has been theft of goods.

A lower gross profit % will result in a lower net profit % depending on the change in overhead expenses since NP% = GP% − Expenses %.

Expenses expressed as a % of sales has fallen substantially in 2014. Although both admin and distribution costs increased in the year, they did not increase proportionately as much as sales. This may be quite usual, since many overhead costs are fixed in nature, and with a growing business economics of scale can take effect. In addition the business automated some of its processes in 2014, which may have reduced costs such as salaries. Given that depreciation expenses must have risen in 2014, there may have been considerable savings in other areas. However, despite these savings in cost levels, they did not counter the fall in gross profit % sufficiently, and so led to the business showing the fall in net profit %.

Financial position – liquidity

For a wholesales the liquidity ratios appear fairly low, with total current assets barely covering current liabilities. The liquid ratio indicates an even more critical situation – Barnaby and Co is relying on inventory having to be sold and the cash being collected from the customers in order to meet its current liabilities. The current ratio has improved slightly in 2014, but the liquid ratio has fallen, indicating that more of Barnaby's current assets are tied up in inventories in 2014. This may be connected to the new contract with the national retailer, as Barnaby might have to hold different inventories and have them readily available.

The bank loan has not improved the liquidity position of the business, confirming that it appears to have been used for the acquisition of the new non-current assets.

Financial position – working capital management

On a more positive note, Barnaby's management of its current assets appears fairly efficient, with the time between buying and selling inventory being approximately one month, and the time taken to collect cash from customers being less than 30 days. This will assist in cash flow and the management of liquidity.

However, both the inventory holding and receivables collection ratios have increased in 2014 – both possibly in connection with the new contract – the customer may have required a

longer credit period in order for the contract to be obtained. Barnaby does need to keep an eye on these ratios, as further increases may cause cash flow difficulties.

Summary

Barnaby is a profitable business and manages its working capital efficiently. It has grown significantly in size and revenues in 2014, and undertaken some key changes. These have resulted in the profitability and working capital ratios to fall in 2014, and the business needs to ensure it does not neglect control of these areas from growing and changing too fast, although the relative reductions in overheads are encouraging, and the business has more than adequate profits to service the new bank loan. However, the business's liquidity position is relatively low for a retailer, so keeping control of inventories and customers receipts is vitally important to ensure sufficient cash is available.

(c) Answers might suggest any *two* of the following and should give reasons:

- Cash Flow statements
- How much of the increase in sales is from the new contract with the national chain
- The pricing structure and payment terms of this new contract
- Whether there have been changes in suppliers or suppliers' prices
- Sales mix over the two years
- Changes in exchange rates over the two years
- A break-down of overhead costs
- A break-down of non-current assets and depreciation charges
- Costs relating to the automation of systems and which costs have changed as a result of this.
- Any sensible suggestions together with reasons.

Question 4

The following are summarised financial statements of Dombey plc:

Income Statement for the year ended 31 March 2015

	£000
Profit before interest and tax	**890**
Interest	**335**
Profit before tax	**555**
Taxation	**125**
Profit for the year	**430**

Statements of Financial Position as at 30 April.

	2015 £000	2014 £000
Non-current assets		
Land and buildings: cost	5,800	4,500
Accumulated depreciation	(1,345)	(1,250)
Fixtures and fittings: cost	2,840	2,670
Accumulated depreciation	(1,920)	(1,430)
	5,375	4,490
Current assets		
Inventories	1,110	1,480
Accounts receivable	1,850	1,670
Prepayments	245	230
Bank	740	—
Cash	60	50
	4,005	3,430
Total Assets	9,380	7,920
Current liabilities		
Bank overdraft	—	890
Accounts payable	1,540	1,290
Accruals	390	465
Interest payable	30	25
Taxation	60	75
	2,020	2,745
Non-current liabilities		
8% debentures	4,500	3,750
Equity	2,860	1,425
Total equity and liabilities	9,380	7,920

Additional information:

(1) During the year ended 31 March 2015 the freehold land was revalued by £1.3 million. Fixtures and fittings which had cost £350,000 and had a net book value of £65,000 at the date of sale were sold for £80,000.

(2) A dividend of £600,000 was paid on 1 January 2015. The balance of the changes in equity was due to a share issue for cash.

Required:

(a) Explain why a statement of cash flows is useful to users in addition to the other key financial statements.

(5 marks)

(b) Prepare the Cash Flow Statement for Dombey plc for the year ended 31 March 2015 using only the financial data shown above.

(20 marks)

Reading for this question

Subject guide, Chapter 6 pp.113–20.

Perks R, and Leiwy D. (2013) Chapter 6.

Approaching the question

This question requires preparation of a cash flow statement (CFS). You should adopt a systematic approach which will enable you to extract the cash flows from the accruals based income statement and statement of financial position. The resulting increase or decrease in cash balances should be reconciled to the relevant figures in the statement of financial position. Good answers will be well presented, correctly describing the component cash flows with well laid out workings. Part (a) of the question required explanation of the usefulness of a CFS.

(a)
- Business cannot survive without cash.
  - Cash cannot lie.
  - Statement provides details of all cash inflows and outflows from all sources.
  - Statement shows why cash and cash equivalent balances at the financial year-end have changed.
- Statement of cash flows directly linked to liquidity.
  - Objective of financial reporting is to enable users to assess cash flows which an entity generates.
- Income statement prepared on the basis of accruals.
  - Accounting policies (e.g. depreciation) affect this.
  - Use of estimates and judgement in profit.
- Enables users to understand the liquidity of an equity.
  - Why current/liquid ratios have varied.
  - Reconciliation of PBT to operating cash flows particularly useful, as shows how management of working capital affects liquidity.

(b) Cash Flow Statement for the year ended 31 March 2015

	£000	£000
Cash flows from operating activities		
Profit before tax		555
Add back : Interest expense [W1]		335
Add back : depreciation [W2]		870
Less: Profit on disposal of F+F [W3]		(15)
Decrease in inventories $1,110 - 1,480$		370
Increase in receivables $1,850 - 1,670$		(180)
Increased in prepayments $245 - 230$		(15)
Increase in payables $1,540 - 1,290$		250
Decreased in accruals $390 - 465$		(75)
		2,185
Interest paid [W1]		(330)
Tax paid [W4]		(140)
Cash flows from operating activities		1,625
Cash flow from investing activities		
Purchase of land and buildings	(1,300)	
Purchase of F&F $(2,880 - (2,670 - 350))$	(520)	
Proceeds of sale of F&F	80	(440)
Cash flow from financing activities		
Issue of debentures	(750)	
Dividend paid	(600)	
Issue of shares	305	455
Net cash inflow		1,640
Cash and cash equivalents at 1/4/14		(840)
Cash and cash equivalents at 31/3/15		800

Workings

W1 Interest payable/paid		
Per income statement		
$5/12 \times 8\% \times 3{,}750 + 7/12 \times 8\% \times 4{,}500$	335	
Add: Opening accrual	25	
Less: Closing accrual	(30)	
Interest paid	330	
		95
W2 Depreciation		
Land and buildings	1430	
Fixtures and fittings		
Opening accumulated depreciation	(285)	
Less: Accumulated depreciation on assets sold	1,145	
Closing accumulated depreciation	1,920	
Depreciation expense for year		775
		870
W3 Non-current asset disposal		
Profit $= 80 - 65 = 15$		
W4 Tax paid 2014 current liability		75
2015 payment on account $125 - 60$		65
		140
W5 Changes in equity 2014		1,425
Revaluation		1,300
Dividend		(600)
Profits		430
Issues of Shares (Balance)		305
		2,860

Section C

Answer one question and no more than one further question from this section.

Question 5

Pumblechook Ltd is a manufacturing company which uses a marginal costing system for internal management reports. The company's annual financial statements for external reporting purposes are based on full absorption costing.

The company makes one single product which sells for £100 per unit.

The following data refer to the years ended 30th June 2014 and 2015:

	2014	2015
	£	£
Costs per unit		
Direct materials	**21**	**23**
Direct labour	**19**	**22**
Variable factory overheads	**8**	**10**
Variable selling and administrative expenses	**2**	**3**
Fixed factory overheads, per annum	**£170,000**	**£180,000**
	Units	**Units**
Opening stock	**1,500**	**2,000**
Closing stock	**2,000**	**1,500**
Sales	**20,000**	**25,000**

The normal volume used for the purpose of absorption costing is 28,000 units in both years.

The company uses the first-in first-out assumption for the calculation of cost of sales.

Required:

(a) Prepare an internal management profit statement for the year ended 30th June 2015 using marginal costing.

(9 marks)

(b) Prepare a draft income statement for the year ended 30th June 2015 using full absorption costing.

(9 marks)

(c) Give calculations showing why the profits for 2015 are not the same in your answers to (a) and (b) above. Explain your answer.

(7 marks)

Reading for this question

Subject guide, Chapter 9 pp.152–62.

Perks R, and Leiwy D. (2013) Chapter 16 pp.64–65.

Approaching the question

The learning outcomes of this module refer to the ability to apply costing methods including absorption costing. This question requires calculations of profit using both marginal and absorption costing. In the marginal costing statement it is important to recognize contribution. In the absorption costing statement it is necessary to compute the under absorption of overheads. Part (c) required the reconciliation of the two profit figures together with a brief explanation.

(a) **Profit statement using marginal costing for year ended 30 June 2015**

	£	£
Sales (25,000 × 100)		2,500,000
Opening stock (2,000 × 48)	96,000	
Production cost (24,500 × 55)	1,347,500	
	1,443,500	
Closing stock (1,500 × 55)	(82,500)	1,361,000
Cost of sales		1,139,000
Selling and admin expenses (25,000 × 3)		75,000
Contribution		1,064,000
Fixed overhead		180,000
Profit		884,000

(b) **Profit statement using absorption costing for the year ended 30 June 2015.**

	£	£
Sales revenue		2,500,000
Opening stock (2,000 × 54.07)	108,143	
Production cost (24,500 × £61.43)	1,505,000	
	1,613,143	
Closing stock (1,500 × £61.43)	92,143	
Cost of sales		1,521,000
		979,000
Under-absorption (3,500 × £6.43)		22,500
		956,500
Selling and admin costs		75,000
Profit		881,500

(c)

Marginal profit		884,000
Fixed overhead B/F in absorption Stock 2,000 × £6.07	12,143	
Fixed overhead C/F in absorption Stock 1,500 × £6.43	9,643	
Reduction in absorption profit		2,500
Absorption profit		881,500

The difference in profit figures are caused by the different treatments of fixed production overheads, which are all written off as period costs in marginal costing systems, while a proportion is carried forward in stock valuation in absorption costing systems. The above reconciliation shows why the profit figures differ.

Question 6

Nickleby plc specialises in the manufacture of fitness equipment and has just bought the rights to make and sell a newly designed heart monitor. A firm of management consultants has carried a feasibility study for the company at a cost of £96,000. The consultants have concluded that the company will have a market for the heart monitor for 5 years before it becomes technically obsolete.

To make the heart monitor, there will be two production stages and the machinery requirements for assembly are:

i. **Machinery for stage 1 of the production will be imported at a cost of £160,000. It is expected that at the end of 5 years, it will be sold for £40,000.**

ii. The company already has suitable machinery for the second stage of the production process. This machinery has a book value of £120,000 while its original cost was £380,000.

If not used on this project, this machinery would be sold now for £100,000. If it is used on this project, this machinery will have to be adapted at a cost of £66,000. This adapted machinery would be sold at the end of the project for £70,000.

If the project goes ahead, maintenance costs would be £32,000 per annum. Additional working capital of £150,000 would be required at the beginning of the project, this is expected to be recovered at the end of the project.

Annual marketing costs would be £60,000 per annum for each of the 5 years. All annual marketing occurs at the beginning of each year.

The heart monitors are expected to sell for £70 per unit and the variable cost per unit is expected to be £40. Relevant fixed costs per year (excluding depreciation, machine maintenance and marketing) are expected to be £20,000.

The management consultants have forecast the sales will be:

Year	**1**	**2**	**3**	**4**	**5**
Sales (units)	**8,000**	**12,000**	**10,000**	**6,000**	**5,000**

The company's cost of capital is assumed to be 12% per annum.

Required:

(a) Determine the Net Present Value and Payback Period of the decision to go ahead with the heart monitor. (20 marks)

(b) Advise the management of Nickleby plc whether, on a purely financial basis, the company should make the heart monitor. You should explain your reasoning and state any assumptions that you make.

(5 marks)

Reading for this question

Subject guide, Chapter 12.

Perks R, and Leiwy D. (2013). Chapter 14.

Approaching the question

The application of capital investment techniques is an important element of the syllabus and learning outcomes for Chapter 12 of the subject guide. The most effective approach to Part (a) is to construct a columnar table in which relevant cash flows can be inserted. It is important to give workings of all figures and to clearly explain treatment of all amounts, for example if a cost is to be treated as sunk and therefore not included as a relevant cost this should be stated. Having determined the net cash flow for each year these are discounted using the discount factors taken from the tables provided. Thus a net present value can be arrived at and a decision recommended and justified. This type of question requires use of a significant amount of data and it is very important that your work is clearly presented and that al workings are legible and understandable. The 8-column accounting paper can help in the respect. A suggested presentation of the answer is given below. The calculation of the payback period shroud be clearly shown and answers using either discounted or nominal cash flows were accepted.

Part (b) required an evaluation of the financial outcomes revealed in a this required a well-argued and explained analysis of the figures and a clear recommendation. The assumptions you state should not simply state that you assume the information given in the question is correct

(a) **Calculation of NPV**

	Years					
	0	1	2	3	4	5
	£000	£000	£000	£000	£000	£000
Sales (units)	8000	12000	10000	6000	5000	
Contribution (70–40)	240	360	300	180	150	
Working capital	(150)					150
Stage 1 machinery	(160)					40
Foregone sale of second stage machinery	(100)					
Adaption cost	(66)					70
Resale value of adapted machinery maintenance		(32)	(32)	(32)	(32)	(32)
Marketing	(60)	(60)	(60)	(60)	(60)	
Fixed costs		(20)	(20)	(20)	(20)	(20)
Net Cash Flow	(53)	128	248	188	68	358
Discount factor	1	0.893	0.797	0.712	0.636	0.567
Discounted cash flow		(536)	(114,304)	133.856	43,248	202,986

NPV = £156,050.

Ignore feasibility study.

Payback period based on cash flows = 2 years and 160000/248000 i.e. 2 years 7.7 months.

(b) Since the NPV is positive then the project seems worthwhile. We assume there is no alternative to selling the stage 1 machinery if the project is not undertaken. The payback period is relatively long at over half way through the project.

We also assume the cash cost for marketing are at the beginning of the year whilst all other cash outlays are spread throughout the year and subtracted from the contribution.

Hence these cash costs will be discounted for the whole year in which they occur.

We assume there is no concern about cash flow being highly negative in the initial stages of the project i.e. cash is available and payback period not of a concern.

Question 7

The management of Skimpole plc has decided to carry out a major refurbishment of the company's manufacturing infrastructure. The production of one of the company's factories, where a standard product is produced, will be interrupted by the closure during refurbishment. The management is considering paying a lump sum to workers laid off during the refurbishment. You have been asked to advise the management of the effect the closure for refurbishment will have on cash flow.

The following data has been made available:

(1)

	Week 1	**Week 2**	**Week 3**
Budgeted sales	**400 units**	**500 units**	**400 units**
Budgeted production	**600 units**	**400 units**	**Nil**

(2) The closure will commence at the beginning of week 3 and it should be assumed that it will continue for at least four weeks. Sales at 400 units per week will continue to be made during the period of the closure until stocks of finished goods are exhausted. Production will stop at the end of week 2. The current stock of finished goods is 600 units.

(3) The selling price of the product is £60 and the budgeted manufacturing cost is made up as follows:

	£
Direct materials	**15**
Direct wages	**7**
Variable overheads	**8**
Fixed overheads	**18**
Total	**£48**

(4) Direct wages are regarded as a variable cost. Direct wages are paid one week in arrears.

(5) The company operates a full absorption costing system and the fixed overhead absorption rate is based upon a budgeted fixed overhead of £9,000 per week. Included in the total fixed overheads is £700 per week for depreciation of equipment. During the period of the closure direct wages and variable overheads would not be incurred and the cash expended on fixed overheads would be reduced by £1,500 per week. It should be assumed that all relevant overheads are paid for immediately the expense is incurred.

(6) The current stock of raw materials cost £7,500: it is intended that these stocks should increase to £11,000 by the end of week 1 and then remain at this level during the period of the closure. All direct materials are paid for one week after they have been received.

(7) All sales are on credit. 70% of the sales value is received in cash from the debtors at the end of the first week following the week in which the sale was made and the remaining 30% at the end of the next week.

(8) The current amount outstanding to material suppliers is £8,000 and direct wage accruals amount to £3,200. Both of these will be paid in week 1. The current balance owing from debtors is £31,200, of which £24,000 will be received during week 1 and the remainder during week 2.

(9) The current balance of cash at the bank and in hand is £1,000.

Required:

(a) Prepare a cash budget for weeks 1 to 6 showing the balance of cash at the end of each week together with a suitable analysis of the receipts and payments during each week.

(20 marks)

(b) Comment upon any matters arising from the cash budget which you consider should be brought to managements attention.

(5 marks)

Reading for this question

Subject guide, Chapter 14 pp.204–06.

Perks R, and Leiwy D. (2013) Chapter 15 pp.366–69.

Approaching the question

The preparation of budgets is a key learning outcome of the course. This question provided a relatively complex scenario which reuired a logical and well structured approach to extracting the figures and preparing the budgets. A columnar answer was the most effective approach to presenting this cash budget. Part (b) required you to identify the key management issues which are evident in this budget.

(a) **Cash budget for weeks 1–6.**

	Week 1	2	3	4	5	6
	£	£	£	£	£	£
Receipts from debtors	24,000	24,000	28,200	25,800	19,800	5,400
Payments:						
Materials	8,000	12,500	6,000	nil	nil	nil
Wages	3,200	4,200	2,800	nil	nil	nil
Variable overheads	4,800	3,200	nil	nil	nil	nil
Fixed overheads						
Total payments	24,300	28,200	15,600	6,800	6,800	6,800
Net cash flow	(300)	(4,200)	12,600	19,000	13,000	(1,400)
Opening balance (week 1 given)	1,000	700	(3,500)	9,100	28,100	41,100
Closing balance	700	(3,500)	9,100	28,100	41,100	39,700

Workings

1. Debtors

	Week 1	2	3	4	5	6
Units sold	400	500	400	300	—	—
Sales (£)	24,000	30,000	24,000	18,000	—	—
Cash received		16,800	21,000	16,800	12,000	
(70%)			7,200	9,000	7,200	5,400
(30%)	24,000	7,200				
Given						
Total receipts (£)	24,000	24,000	28,200	25,800	19,800	5,400

* Sales in week 4 = opening stock (600 units) + production in weeks 1 and 2 (1,000 units) less sales in weeks 1–3 (13000 units) = 300 units.

2. Creditors

	Week 1	2	3	4	5	6
	£	£	£			
Materials consumed at £15	9,000	6,000	—	—	—	—
Increase in stocks	3,500	—				
Materials purchased	12,500	6,000				
Payment to suppliers	8,000 (given)	12,500	6,000	nil	nil	nil

3. Wages

	Week 1	2	3	4	5	6
	£	£	£			
Wages consumed at £7	4,200	2,800	nil	nil	nil	nil
Wages paid	3,200 (given)	4,200	2,800	—	—	—

4. Variable overhead payment = budgeted production × budgeted cost per unit.

5. Fixed overhead payments for weeks 1–2 = fixed overhead per week (£9,000) less weekly depreciation (£700). Fixed overhead payments for weeks 3–6 = £8,300 normal payment less £1,500 per week.

(b) Comments

1. Finance will be required to meet the cash deficit in week 2, but a lowering of the budgeted material stocks at the end of week 1 would reduce the amount of cash to be borrowed at the end of week 2.
2. The surplus cash after the end of week 2 should be invested on a short-term basis.
3. After week 6, there will be no cash receipts, but cash outflows will be £6,800 per week. The closing balance of £39,700 at the end of week 6 will be sufficient to finance outflows for a further 5 or 6 weeks (£39,700/£6,800 per week).
4. Assumptions underlying the cash flows budget may be subject to significant uncertainty.
5. May be additional costs of plant closure and reopening due to strike.