

Accounting for Costs

ACCA CERTIFIED ACCOUNTING TECHNICIAN EXAMINATION

INTERMEDIATE LEVEL

THURSDAY 8 JUNE 2006

QUESTION PAPER

Time allowed **2 hours**

This paper is divided into two sections

Section A ALL TWENTY questions are compulsory and
MUST be answered

Section B ALL FOUR questions are compulsory and MUST
be answered

Do not open this paper until instructed by the supervisor

**This question paper must not be removed from the examination
hall**

The Association of Chartered Certified Accountants

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Section A – ALL TWENTY questions are compulsory and MUST be attempted

Please use the Candidate Registration Sheet provided to indicate your chosen answer to each multiple-choice question. Each question within this section is worth 2 marks

1 The management accountant of X Ltd has written a report assessing the cost savings that could be made if the company was to invest in new technology.

In which area will the report primarily aid the management of X Ltd?

- A Budgeting
- B Control
- C Decision-making
- D Monitoring

2 Which of the following only contains essential features of useful management information?

- A Accurate, clear, presented in report format
- B Timely, reliable, supported by calculations
- C Regular, complete, communicated in writing
- D Clear, accurate, relevant for its purpose

3 What is an interlocking bookkeeping system?

- A A single, combined system containing both cost accounting and financial accounting records
- B A system combining cost accounting and management accounting
- C A system supported by prime entry records
- D A system where separate accounts are kept for cost accounting and for financial accounting.

4 A company carries out production in accordance with the special requirements of each customer.

Which costing method is MOST appropriate?

- A Batch costing
- B Job costing
- C Process costing
- D Service costing

5 Total costs incurred by a business may be expressed as:

$$y = a + bx$$

when y represents the total costs

a represents the total fixed costs

b represents the variable costs per unit

x represents the number of units of output

A company has variable costs of £12.20 per unit and total costs, for output of 7,400 units in a period, of £156,980.

Using the above formula and information, what are the total fixed costs in the period?

- A £42,540
- B £66,700
- C £90,280
- D £247,260

- 6 A company currently produces 6,000 units of its single product each period, incurring total variable costs of £60,000 and fixed costs of £42,000. Production will increase to 8,000 units per period if the company expands capacity resulting in changes both to the variable costs per unit and to the total fixed costs. For production of 8,000 units per period total variable costs would be £76,000 and fixed costs £50,000.

What is the reduction in total cost per unit comparing the costs for 8,000 units per period with the unit costs currently being incurred?

- A £0.50
- B £0.75
- C £1.25
- D £2.08

- 7 The following documents are used in accounting for raw materials:

- (i) Goods received note
- (ii) Materials returned note
- (iii) Materials requisition note
- (iv) Delivery note

Which of the documents may be used to record raw materials sent back to stores from production?

- A (i) and (ii)
- B (i) and (iv)
- C (ii) only
- D (ii) and (iii)

- 8 Material M is used by a manufacturer. Stock of Material M at 1 May was valued at a cost of £3,302 (260 kg at £12.70 per kg). 500 kg were purchased on 7 May for £6,500. 410 kg of Material M were used in production during the month. The LIFO method is applied at the end of each month.

What is the cost accounting entry for the issues of Material M during the month?

	Debit		Credit	
A	Material stock	£5,252	Work-in-progress	£5,252
B	Work-in-progress	£5,252	Material stock	£5,252
C	Material stock	£5,330	Work-in-progress	£5,330
D	Work-in-progress	£5,330	Material stock	£5,330

- 9 **How is the re-order level calculated if stock-outs are to be avoided?**

- A Maximum usage × Maximum lead time
- B Maximum usage × Minimum lead time
- C Minimum usage × Maximum lead time
- D Minimum usage × Minimum lead time

- 10 The following information relates to a raw material stock item:

Economic order quantity	800 units (established using the formula $\sqrt{\frac{2cd}{h}}$)
Demand	12,000 units per annum
Cost of holding stock	£1.50 per unit per annum

What is the cost of placing an order?

- A £27
- B £40
- C £71
- D £80

11 Which of the following labour records may be used to allocate costs to the various cost units in a factory?

- (i) Employee record card
- (ii) Attendance record card
- (iii) Time sheet
- (iv) Job card

- A** (i) and (ii)
- B** (i), (iii) and (iv)
- C** (ii) and (iii)
- D** (iii) and (iv)

12 How is the activity (production volume) ratio calculated?

- A** Actual hours ÷ budgeted hours
- B** Budgeted hours ÷ actual hours
- C** Standard hours for actual output ÷ actual hours
- D** Standard hours for actual output ÷ budgeted hours

13 Which of the following relates to capital expenditure?

- A** Cost of acquiring or enhancing fixed assets
- B** Expenditure on the manufacture of goods or the provision of services
- C** Recorded as an asset in the profit and loss account
- D** Recorded as a liability in the balance sheet

14 Overheads in a factory are apportioned to four production cost centres (A, B, C and D). Direct labour hours are used to absorb overheads in A and B and machine hours are used in C and D. The following information is available:

	Production cost centre			
	A	B	C	D
Overhead expenditure (£)	18,757	29,025	46,340	42,293
Direct labour hours	3,080	6,750	3,760	2,420
Machine hours	580	1,310	3,380	2,640

Which cost centre has the highest hourly overhead absorption rate?

- A** Production Cost Centre A
- B** Production Cost Centre B
- C** Production Cost Centre C
- D** Production Cost Centre D

15 A company sold 56,000 units of its single product in a period for a total revenue of £700,000. Finished stock increased by 4,000 units in the period. Costs in the period were:

Variable production	£3.60 per unit
Fixed production	£258,000 (absorbed on the actual number of units produced)
Fixed non-production	£144,000

Using absorption costing, what was the profit for the period?

- A** £82,000
- B** £96,400
- C** £113,600
- D** £123,200

16 A company with a single product sells more units than it manufactures in a period.

Which of the following correctly describes the use of marginal costing in comparison with absorption costing in the above situation?

- A Both profit and stock values will be higher
- B Both profit and stock values will be lower
- C Profit will be higher; stock values will be lower
- D Profit will be lower; stock values will be higher

17 A product has the following unit costs:

Variable manufacturing	£7.60
Variable non-manufacturing	£1.40
Fixed manufacturing	£3.70
Fixed non-manufacturing	£2.70

The selling price of the product is £17.50 per unit

What is the contribution/sales ratio?

- A 12.0%
- B 48.6%
- C 51.4%
- D 56.6%

18 A company manufactures and sells four types of component. The labour hours available for manufacture are restricted but any quantities of the components can be bought-in from an outside supplier in order to satisfy sales demand. The following further information is provided:

	Component			
	A	B	C	D
	per unit	per unit	per unit	per unit
Selling price (£)	12.00	15.00	18.00	20.00
Variable manufacturing costs (£)	6.00	8.00	9.00	11.50
Bought-in price (£)	11.00	11.50	13.00	16.00
Labour (hours)	0.8	0.8	0.8	0.8

Which is the best component to BUY-IN in order to maximise profit?

- A Component A
- B Component B
- C Component C
- D Component D

19 An investment project has net present values as follows:

At a discount rate of 5%	£69,700 positive
At a discount rate of 14%	£16,000 positive
At a discount rate of 20%	£10,500 negative

Using the above figures, what is the BEST approximation of the internal rate of return of the investment project?

- A 17.6%
- B 17.9%
- C 18.0%
- D 22.7%

20 A company has decided to lease a machine. Six annual payments of £8,000 will be made with the first payment on receipt of the machine. Below is an extract from an annuity table:

Year	Annuity factor 10%
1	0.909
2	1.736
3	2.487
4	3.170
5	3.791
6	4.355

What is the present value of the lease payments at an interest rate of 10%?

- A** £30,328
- B** £34,840
- C** £38,328
- D** £48,000

(40 marks)

Section B – ALL FOUR questions are compulsory and MUST be attempted

1 Company X is preparing a job cost estimate that will be used to provide a quote for a potential customer. Estimated costs for the job are to be based on the following:

Direct materials £2,893

Direct labour 210 hours at a basic rate of £8.00 per hour.

Direct production staff also receive a bonus each period. The bonus is paid on actual hours worked at a rate per hour calculated using the following formula:

$\{[(\text{time allowed} - \text{time worked}) \div \text{time allowed}] \times \text{basic rate per hour}\}$

The bonus to be included currently in the costing of all jobs is based on the following estimates for the period:

Total time worked 3,400 labour hours

Total time allowed 4,000 labour hours

Production overheads Absorbed at 20% of prime cost (including labour bonus)
+ £9.00 per direct labour hour

Non-production overheads Absorbed at 25% of total production cost

Quoted prices are calculated to provide Company X with a net profit margin of 20% of sales.

Required:

(a) Calculate the total estimated **PRODUCTION** cost of the job.

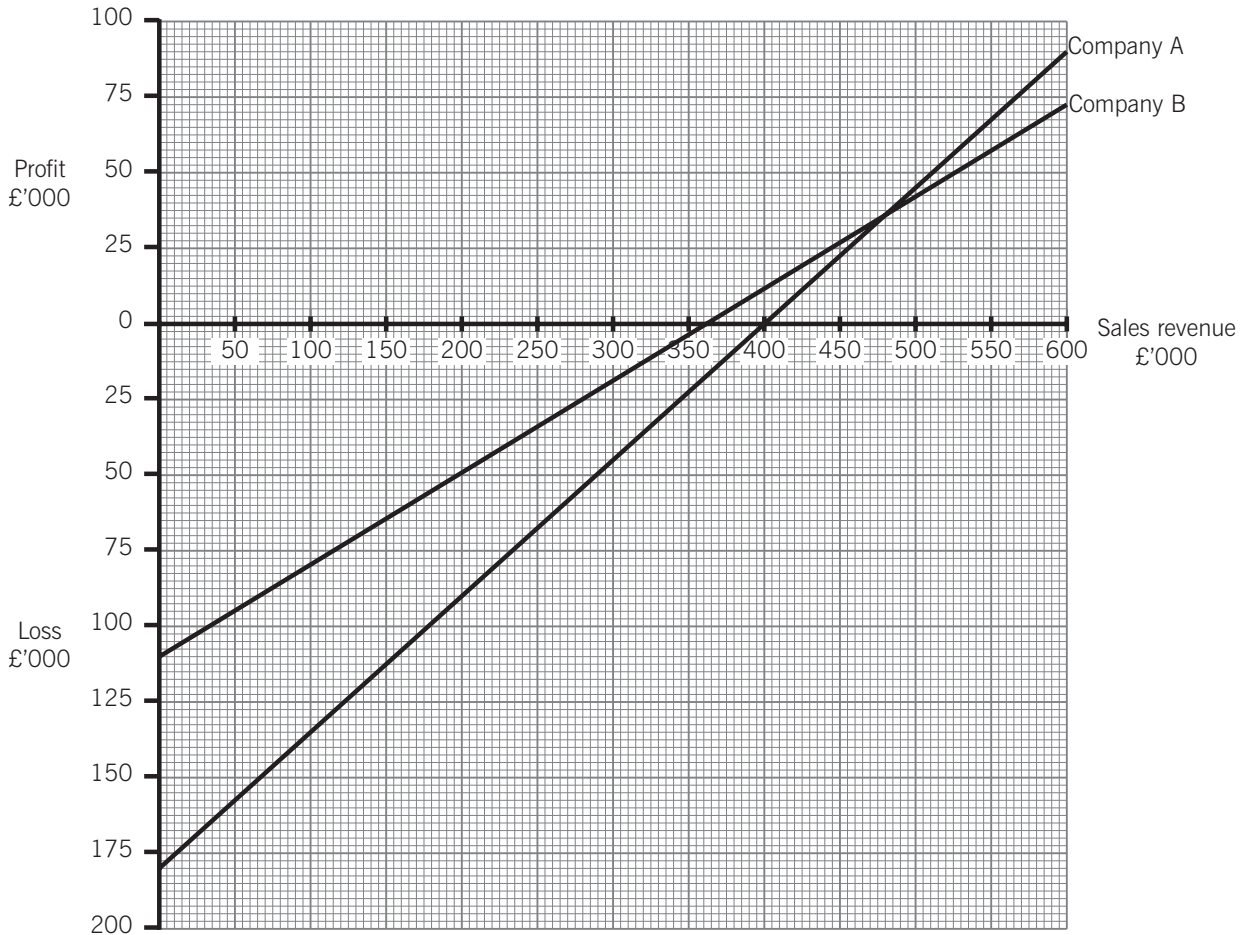
(10 marks)

(b) Calculate the price that should be quoted for the job.

(4 marks)

(14 marks)

2 A profit/volume (P/V) chart of two companies (A and B) for a period follows:



Required:

(a) By reference to the above chart:

- (i) estimate the break-even sales revenue of Company A; (2 marks)
- (ii) estimate the total fixed costs of Company A; (2 marks)
- (iii) state which company has the higher contribution/sales ratio (justify your conclusion); (3 marks)
- (iv) estimate the level of sales at which the profit of the two companies is the same. (2 marks)

(b) Calculate the contribution/sales ratio of Company A and use this to confirm, by calculation, the break-even point identified in (a)(i) above. (4 marks)

(13 marks)

- 3 (a) (i) Explain briefly what a coding system is and why coding systems are used; (3 marks)
- (ii) List TWO features of an efficient and effective coding system. (3 marks)

- (b) There are two production cost centres (P1 and P2) and two service cost centres (Materials Store and Employee Facilities) in a factory. Estimated overhead costs for the factory for a period, requiring apportionment to cost centres, are:

	£
Buildings depreciation and insurance	42,000
Management salaries	27,000
Power to operate machinery	12,600
Other utilities	9,400

In addition, the following overheads have been allocated to cost centres:

	Cost Centre			
	P1	P2	Materials Store	Employee Facilities
	£107,000	£89,000	£68,000	£84,000

Further information:

	Cost Centre				Total
	P1	P2	Materials Store	Employee Facilities	
Floor area (m ²)	4,560	5,640	720	1,080	12,000
Number of employees	18	24	6	6	54
Share of other utilities overhead	35%	45%	10%	10%	100%
Machine hours	6,200	5,800			12,000
Share of Materials Store overheads	40%	60%			100%

Required:

- (i) Prepare a schedule showing the allocated and apportioned factory overhead costs for each cost centre; (7 marks)
- (ii) Re-apportion the service cost centre overheads. (4 marks)
- (17 marks)**

- 4 (a) Two products (Y and Z) are jointly produced in a single process. Joint costs for a period totalled £52,000. Output of the two products in the period was:
- | | |
|-----------|-------------|
| Product Y | 2,000 units |
| Product Z | 3,500 units |

There was no opening or closing work-in-progress or finished goods stock.

Both products are currently sold without further processing for:

Product Y	£12.00 per unit
Product Z	£16.00 per unit

Sales values are used as the basis for apportioning joint costs.

Required:

Prepare a statement showing the gross profit (in total and per unit) for each product in the period.

(9 marks)

- (b) In another process operation joint products A and B are produced. Joint costs, apportioned on the basis of weight of output, are £9.80 per kg. Product A can be sold at the split-off point for £9.00 per kg. Alternatively the product can be processed further, at an incremental cost of £2.10 per kg, and sold as Product AA at a price of £11.50 per kg.

Required:

Comment on EACH of the following statements concerning Product A:

- (i) **The product should be processed further because if sold as Product A the selling price is below cost;**
(3 marks)

- (ii) **The product should be processed further because profit would increase**
(show calculations clearly to support your comment). (4 marks)

(16 marks)

End of Question Paper