

Accounting for Costs

ACCA CERTIFIED ACCOUNTING TECHNICIAN EXAMINATION

INTERMEDIATE LEVEL

THURSDAY 9 JUNE 2005

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

Paper T4



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

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 Consider the following incomplete statements relating to management information:

- (i) clear to the user
- (ii) detailed and completely accurate
- (iii) provided whatever the cost
- (iv) relevant for purpose

Which of the above are necessary features of useful management information?

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

2 Features of computer systems include:

- (i) icons
- (ii) keyboard
- (iii) optical mark reading
- (iv) pull-down menu

Which of the above are features of graphical user interfaces?

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

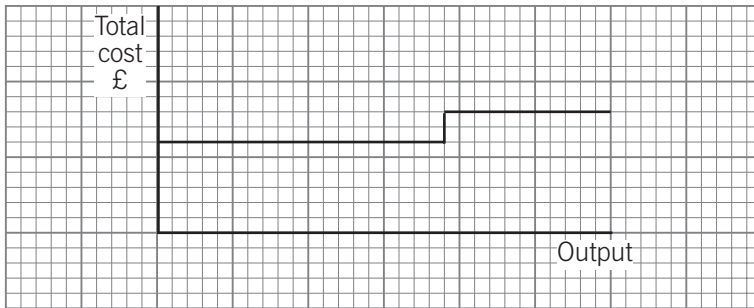
3 The following data is available relating to costs and activity:

Total cost	Activity
£28,420	11,600 units
£29,294	12,440 units
£29,764	12,880 units

Using the high-low method, what is the variable cost per unit (to the nearest penny)?

- A** £0.95
- B** £1.04
- C** £1.05
- D** £1.07

4 The chart below shows the behaviour of a total cost as the volume of output changes:



What sort of cost is being illustrated?

- A Fixed cost
- B Semi-variable cost
- C Stepped-fixed cost
- D Variable cost

5 The following documents are used within a cost accounting system:

- (i) invoice from supplier
- (ii) purchase order
- (iii) purchase requisition
- (iv) stores requisition

Which TWO of the documents are matched with the goods received note in the buying process?

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

6 A differential piecework scheme has a basic rate of £0.50 per unit. Output in addition to 500 units is paid at higher rates. The premiums over and above the basic rate, which apply only to additional units over the previous threshold, are:

Output (units)	Premium (per unit)
501–600	£0.05
above 600	£0.10

What is the total amount paid if output is 620 units?

- A £317
- B £318
- C £322
- D £372

- 7 Labour costs may include:
- (i) overtime hours of direct operatives at basic rate
 - (ii) overtime premiums of factory employees
 - (iii) productive time of direct operatives
 - (iv) training of direct operatives

Which of the above items will usually be treated as a direct cost?

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

- 8 A fixed asset has an expected life of 10 years with a nil residual value. The asset is due to be depreciated using the straight-line method.

Which of the following statements is correct regarding the use of the reducing balance method instead?

- A Depreciation will be higher in each year using 20% reducing balance
- B Depreciation will be higher in each of years 1, 2 and 3 using 25% reducing balance
- C Depreciation will be lower in each year using 15% reducing balance
- D Depreciation will be lower in year 2 using 18% reducing balance

- 9 **Which of the following would be the most appropriate basis for reapportioning the cost of personnel services in a factory?**

- A Floor space occupied
- B Hours worked by direct operatives
- C Number of direct operatives
- D Number of employees

- 10 An overhead absorption rate of £12.00 per direct labour hour was established based on a budget of 2,100 hours. Actual direct labour hours worked were 2,180 and actual overhead expenditure was £25,470.

What was the over/under absorption of overhead?

- A £270 under absorbed
- B £690 over absorbed
- C £960 over absorbed
- D £960 under absorbed

- 11 Machine hours are used to absorb overheads in a production cost centre. Overheads allocated and apportioned to the cost centre are:

	£
Allocated	13,122
Apportioned	7,920
Reapportioned from service cost centres	2,988

216,000 units of product are manufactured at a rate of 120 units per machine hour.

What is the overhead absorption rate per machine hour?

- A £7.29
 - B £11.13
 - C £11.69
 - D £13.35
- 12 Job XX has been completed at a total production cost of £3,633. Administration and selling overheads are applied at 20% of production cost. The selling price of each job is established so as to provide a GROSS profit margin of 30%.

What is the selling price of Job XX?

- A £4,723
 - B £5,190
 - C £5,668
 - D £6,228
- 13 In process costing how are abnormal gains accounted for in the process account?
- A Credited at the cost per unit of normal output
 - B Credited at disposal value
 - C Debited at the cost per unit of normal output
 - D Debited at disposal value

- 14 Raw materials costing £12,800 were input to a process during a period. Conversion costs totalled £18,430. There was no work-in-progress at the beginning of the period and no process losses during the period. 3,600 units of the product were completed in the period with 400 units remaining in the process at the end of the period, complete for materials and with 70% of the conversion costs applied.

What was the production cost per unit?

- A £7.81
 - B £7.95
 - C £8.05
 - D £8.68
- 15 In a production process the percentage completion of the work-in-progress (WIP) at the end of a period is found to have been understated.

When this is corrected what will be the effect on the cost per unit and the total value of WIP?

	Cost per unit	Total value of WIP
A	Decrease	Decrease
B	Decrease	Increase
C	Increase	Decrease
D	Increase	Increase

16 Products A and B are manufactured jointly. Production costs in the joint process totalled £102,000 in a period and output was:

Product A 12,000 units (sold at £6.00 per unit)
Product B 22,000 units (sold at £4.00 per unit)

Joint costs are apportioned on the basis of realisable value.

What share of the joint costs in the period would be apportioned to Product B?

- A** £40,800
- B** £45,900
- C** £56,100
- D** £66,000

17 The cost unit of a transport business with a single vehicle is tonne/kilometre. Total costs were £4,558 in a week during which the following journeys were made:

Journey	Load (tonnes)	Distance (kms)
1	5	80
2	7	100
3	3	40
4	5	60
5	4	150

What was the cost per tonne/kilometre in the week?

- A** £0.44
- B** £2.15
- C** £10.60
- D** £57.57

18 **What term is used to represent the benefit sacrificed when one course of action is chosen in preference to an alternative?**

- A** Avoidable cost
- B** Direct cost
- C** Incremental cost
- D** Opportunity cost

19 **Which of the following accurately defines the internal rate of return (IRR)?**

- A** The average annual profit from an investment expressed as a percentage of the investment sum
- B** The discount rate (%) at which the net present value of the cash flows from an investment is zero
- C** The net present value of the cash flows from an investment discounted at the required rate of return
- D** The rate (%) at which discounted net profits from an investment are zero

20 An investment project has the following discounted cash flows (£'000):

Year	Discount rate		
	0%	10%	20%
0	(90)	(90)	(90)
1	30	27.3	25.0
2	30	24.8	20.8
3	30	22.5	17.4
4	30	20.5	14.5
	<u>30</u>	<u>5.1</u>	<u>(12.3)</u>

The required rate of return on investment is 10% per annum.

What is the discounted payback period of the investment project?

- A Less than 3.0 years
- B 3.0 years
- C Between 3.0 years and 4.0 years
- D More than 4.0 years

(40 marks)

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

- 1 A company has the following costs for its single product, based on planned production and sales of 46,000 litres in a period:

	£ per litre
Prime costs	5.20
Production overhead – all fixed	2.80
Non-production overhead	
– variable	0.65
– fixed	1.70
	<hr/>
	£10.35

Actual production and sales in the period were:

Production	46,000 litres	
Sales	45,600 litres	(at £12.00 per litre)

There was no finished stock at the beginning of the period. Variable costs per litre and total fixed costs in the period were as planned. Variable non-production overheads vary in total with the number of litres sold.

Required:

- (a) Prepare a profit statement for the period using absorption costing. (8 marks)

- (b) Explain fully why, and calculate by how much, the profits for the period would be different if marginal costing was used instead. (6 marks)

(14 marks)

- 2 600 tonnes of raw material, costing £430,032, were input to a process in a period. Conversion costs totalled £119,328. Losses, in the form of reject product, are normally 12% of input. Reject product is sold for £260.00 per tonne.

521 tonnes of finished product passed inspection in the period. The remaining output was sold as reject product. There was no work-in-progress either at the beginning or the end of the period.

Required:

For the period:

- (a) Calculate the cost per unit of normal output. (8 marks)

- (b) Prepare the process account, including any abnormal losses/gains. (6 marks)

(14 marks)

3 Many manufacturing organisations hold raw material stocks.

Required:

(a) List three examples of holding costs. (3 marks)

(b) List two examples of stockout costs. (2 marks)

A manufacturing organisation uses 20,000 kilograms (kg) of a raw material evenly over a period. The material is purchased for £2.50 per kg, the cost of placing an order with the supplier is £60 and the cost of holding one kg of the material in stock for the period is 15% of the purchase price.

Required:

(c) Calculate the economic order quantity (EOQ) of the raw material (to the nearest kg). (5 marks)

(d) Calculate the total holding costs of the raw material in the period if the order quantity is 3,000 kg and buffer stock is 1,000 kg. (5 marks)

(15 marks)

4 A book publisher makes an initial payment of £25,000 to authors for each accepted manuscript, followed by a royalty payment of 15% of the net sales price of each book sold.

The net sales price of a book, which is the revenue received by the publisher, is the listed selling price in bookstores less the bookstore margin of 20% of the listed selling price.

A particular book has a listed selling price of £15.00. Costs incurred on the book by the publisher (excluding initial and royalty payments to the author) are:

Variable costs per copy	£3.20
Total fixed costs	£80,000

Required:

(a) Calculate the number of copies of the particular book that need to be sold for the publisher:

(i) to break even; (9 marks)

(ii) to make a profit of £35,000. (3 marks)

(b) Prepare a profit/volume (P/V) chart for the publisher, relating to the particular book publication, covering sales up to 25,000 copies. (5 marks)

(17 marks)

End of Question Paper