

Accounting for Costs

ACCA CERTIFIED ACCOUNTING TECHNICIAN EXAMINATION
INTERMEDIATE LEVEL
THURSDAY 7 JUNE 2007

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

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 Which of the following best describes a profit centre?

- A Part of a business where management makes investment decisions
- B Part of a business that provides a service to other parts of the business
- C Part of a business where finished products are manufactured
- D Part of a business where management is responsible for revenues and costs

2 In a large company, which of the following activities may be the responsibility of an accounting technician?

- A Calculating cost variances
- B Making capital investment decisions
- C Approving budgets
- D Allocating warehouse space

3 Which of the following are characteristics of management accounting information?

- (i) Non-financial as well as financial
- (ii) Used by all stakeholders
- (iii) Concerned with cost control only
- (iv) Not legally required

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

4 When production has been completed what double-entry would be made in a cost accounting system?

- | | Debit | Credit |
|---|------------------|------------------|
| A | Cost of sales | Finished goods |
| B | Finished goods | Work-in-progress |
| C | Finished goods | Cost of sales |
| D | Work-in-progress | Finished goods |

5 The following is an extract from the list of accounts of a motor vehicle manufacturer:

	Cost codes
Direct materials	1000 – 1999
Indirect materials	2000 – 2999
Direct labour	3000 – 3999
Indirect labour	4000 – 4999

Which of the following is coded INCORRECTLY?

- | | Code | Description |
|---|------|-------------------------------------|
| A | 4262 | Wages of materials stores personnel |
| B | 4131 | Wages of canteen supervisor |
| C | 1008 | Metal for vehicle body |
| D | 1361 | Cleaning materials |

6 The following shows the cost per unit of an item of expense at different levels of activity:

Activity (units)	Cost per unit (£)
1	10,000
50	200
100	120
150	80

What is the correct behavioural classification for the expense item?

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

7 Which of the following would be classified as a fixed cost in the operation of a motor vehicle?

- A Oil change every 10,000 kilometres
- B Petrol
- C Insurance
- D Tyre replacement

8 A particular cost is classified as being semi-variable.

What is the effect on the cost per unit if activity increases by 10%?

- A Decrease by 10%
- B Decrease by less than 10%
- C Increase by less than 10%
- D Remain constant

9 The raw materials issued to a job were overestimated and the excess is being sent back to the materials store.

What document is required?

- A Stores credit note
- B Stores debit note
- C Materials returned note
- D Materials transfer note

10 Analysis of the gross wages in a factory reveals:

	Direct operatives (£)	Indirect operatives (£)
Productive hours at basic rate	41,200	17,600
Overtime premium	1,100	450
Idle time	760	
Group bonuses	2,780	
Total gross pay	<u>45,840</u>	<u>18,050</u>

What amount would NORMALLY be accounted for as production overhead?

- A £18,050
- B £18,810
- C £21,590
- D £22,690

11 Which of the following are aspects of payroll systems?

- (i) Attendance records
- (ii) Calculation of bonuses
- (iii) Employee tax codes
- (iv) Apportionment of wages to cost centres

- A** (i), (ii) and (iii) only
- B** (ii), (iii) and (iv) only
- C** (i), (ii) and (iv) only
- D** All four items

12 The direct labour capacity ratio for a period was 104%.

What could have caused this?

- A** Actual hours worked being greater than budgeted hours
- B** Actual hours worked being less than budgeted hours
- C** Standard time for actual output being greater than budgeted hours
- D** Standard time for actual output being less than budgeted hours

13 The following may occur depending upon how overhead absorption rates are set and used:

- (i) Delay in the establishment of job costs
- (ii) Change in unit costs reflecting seasonal activity
- (iii) Overhead over or under recovery

Which of the above may result from the use of predetermined rates set for a year rather than actual rates recalculated every three months?

- A** (i) only
- B** (ii) only
- C** (iii) only
- D** None

14 A company manufactures and sells 4,000 units of a product each month at a selling price of £22 per unit. The prime cost of the product is £11.60 per unit and the monthly overheads are:

	£
Variable production	7,200
Variable selling and administration	5,200
Fixed production	16,400
Fixed selling and administration	6,800

What is the product's gross profit margin (to one decimal place)?

- A** 6.8%
- B** 20.5%
- C** 33.2%
- D** 59.5%

15 A product has the following costs:

	£/unit
Variable production costs	4.80
Total production costs	7.50
Total variable costs	5.90
Total costs	10.00

11,400 units of the product were manufactured in a period during which 11,200 units were sold.

What is the profit difference using absorption costing rather than marginal costing?

- A The profit for the period is £540 lower
- B The profit for the period is £540 higher
- C The profit for the period is £820 lower
- D The profit for the period is £820 higher

16 A job cost estimate includes 630 productive labour hours. In addition, it is anticipated that idle time will be 10% of the total hours paid for the job. The wage rate is £12 per hour.

What is the total estimated labour cost for the job?

- A £6,804
- B £7,560
- C £8,316
- D £8,400

17 Costs incurred in a process totalled £216,720 for a period. 24,000 units of finished product were manufactured including 1,200 units which were rejected on inspection and disposed of. The level of rejects in the period was normal. Rejects are sold for £2.00 per unit.

What was the cost per unit for the process?

- A £8.93
- B £9.03
- C £9.40
- D £9.51

18 The following information relates to a production process for a period:

Input costs	£194,860
Completed output	11,400 units
Closing work-in-progress	1,200 units (60% complete)

There were no process losses or opening work-in-progress.

What was the cost per unit for the process?

- A £15.47
- B £16.08
- C £16.40
- D £17.09

19 Are the following statements about joint product cost apportionment TRUE or FALSE?

- 1 Using the sales value method of cost apportionment, and where there is no further processing, the gross profit margin of each product will be the same
- 2 Using the units of output method of cost apportionment, the joint cost per unit will be the same for all joint products

	Statement 1	Statement 2
A	False	False
B	False	True
C	True	False
D	True	True

20 In a 30 day period a restaurant was open for nine hours per day. Costs incurred in the period totalled £65,124. The following additional information is available:

Number of tables available	15
Number of seats per table	4
Customer turnround	1 hour
Seating occupancy achieved	60%

What was the cost per customer?

- A** £4.02
- B** £6.70
- C** £16.08
- D** £26.80

(40 marks)

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

- 1 (a) Explain why cash flows are discounted in capital investment project appraisal. (2 marks)
- (b) Describe how the net present value is calculated and used in capital investment project appraisal. (6 marks)

- (c) A capital investment project has estimated net cash inflows of £60,000 per annum for six years. Discounting the net cash inflows at 10% and 20% per annum, the present values of the inflows are:

Annual discount rate	Present value of inflows
10%	£261,300
20%	£199,600

The initial investment amount is £224,000.

Required:

- (i) Plot the net present values of the project, at discount rates of 10% and 20% per annum, on the graph paper provided; (6 marks)
- (ii) Indicate, on the graph, an estimate of the internal rate of return of the project. (2 marks)

(16 marks)

- 2 (a) Material X is used by a company in the manufacture of one of its products, Product Z. Demand for Product Z for the next year is forecast to be 26,000 units.

Each finished unit of Product Z contains 0.72 kilograms of Material X. There is a preparation loss of 10% of material used. It is not planned to change the stock-holding of Product Z in the year ahead but a reduction of 1,000 kilograms in the stock of Material X is planned.

Required:

Calculate the quantity of Material X that needs to be purchased in the year ahead. (4 marks)

- (b) Material Y is also used in the manufacture of Product Z and in several other products. The total annual requirement for Material Y is 120,000 litres, used evenly over each year.

The costs of ordering stock and holding stock are as follows:

Ordering	£45 per order
Holding	£0.30 per litre per annum

A safety stock of 2,500 litres of Material Y is held and the average lead time (the interval between placing an order for materials and having them delivered) is 1.5 weeks.

Required:

Calculate for Material Y the:

- (i) Economic order quantity, using the formula $\sqrt{[(2CoD) \div Ch]}$; (4 marks)
- (ii) Reorder level (assume 1 year = 50 weeks); (4 marks)
- (iii) Total annual cost of ordering stock; (3 marks)
- (iv) Total annual cost of holding stock. (3 marks)

(18 marks)

3 The variable costs per unit of a company's single product for the period just ended were:

	£
Production	120
Non-production	16

The selling price of the product in the period was £200 per unit and the sales revenue required to break-even was £120,000.

Required:

(a) Calculate for the period just ended:

- (i) The contribution/sales ratio;** (3 marks)
- (ii) The total fixed costs.** (3 marks)

(b) In the following period it is expected that fixed costs will total £39,000.

Required:

Calculate the required contribution per unit in the following period for the break-even point to be 500 units.
(4 marks)

(10 marks)

- 4 A company has three production cost centres (P1, P2 and P3) and two service cost centres (S1 and S2) in its factory. The actual production overhead costs for a period, totalling £487,430, have been allocated and apportioned to cost centres as follows:

Production cost centre			Service cost centre	
P1	P2	P3	S1	S2
£176,860	£96,250	£134,770	£42,150	£37,400

The overheads of service cost centre S1 are reapportioned on the basis of the number of materials requisition notes (MRN) raised in the period. The overheads of service cost centre S2 are reapportioned on the basis of the number of employees in the other cost centres. The following additional actual information is available for the period:

Cost centre	Number of employees	Number of MRNs
P1	20	4,970
P2	25	3,550
P3	50	5,680
S1	8	
S2	5	

Required:

- (a) Reapportion the service cost centre overheads. (7 marks)

- (b) The predetermined production overhead rates for the period, used to absorb overheads, are:

P1	£24.60 per machine hour
P2	£13.40 per direct labour hour
P3	£10.80 per direct labour hour

Machine hours and direct labour hours in each production cost centre are:

Cost centre	Machine hours		Direct labour hours	
	Budget	Actual	Budget	Actual
P1	8,100	8,250	3,650	3,680
P2	1,960	1,880	8,650	8,440
P3	3,610	3,720	15,600	15,990

Required:

Calculate for the period for each production cost centre:

- (i) The amount of overheads absorbed; (3 marks)
- (ii) The amount of any over or under absorption of overheads. (6 marks)

(16 marks)

End of Question Paper