

Certified Accounting Technician Examination
Intermediate Level

Accounting for Costs

Thursday 6 December 2007

Time allowed: 2 hours

This paper is divided into two sections:

Section A – ALL 20 questions are compulsory and **MUST**
be attempted

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

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 20 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 Sources of useful data may be:

- 1 External
- 2 Internal
- 3 Financial
- 4 Non-financial

Which of the above sources may be used by an accounting technician?

- A** 1, 2 and 3 only
- B** 2, 3 and 4 only
- C** 2 and 3 only
- D** all four sources

2 Which of the following statements about cost and management accounting are true?

- 1 Cost accounting cannot be used to provide inventory valuations for external financial reporting
- 2 There is a legal requirement to prepare management accounts
- 3 The format of management accounts may vary from one business to another
- 4 Management accounting provides information to help management make business decisions

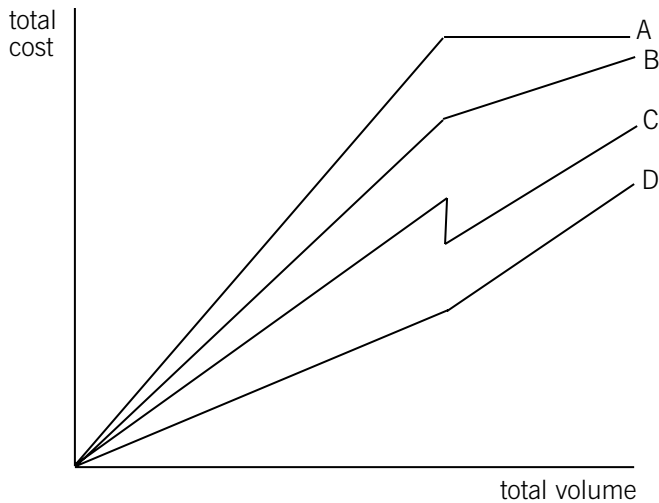
- A** 1 and 2
- B** 1 and 4
- C** 2 and 3
- D** 3 and 4

3 Which of the following are features of an efficient and effective cost coding system?

- 1 Codes need to be complex to include all items
- 2 Each code must have a combination of alphabetic and numeric characters
- 3 Codes for a particular type of item should be consistent in length and structure

- A** 1 only
- B** 3 only
- C** 1 and 2
- D** 2 and 3

4 Four cost behaviour patterns are demonstrated on the chart below.



Which line on the chart represents the behaviour of total raw material costs where a volume discount applies to all purchases in a period once a required level is reached?

- A Line A
- B Line B
- C Line C
- D Line D

5 Production costs have been estimated at two levels of output:

	50,000 units	55,000 units
Prime costs	\$430,000	\$473,000
Overheads	\$330,000	\$339,000

What are the estimated production costs per unit at an output level of 54,000 units?

- A \$14.76
- B \$14.84
- C \$15.20
- D \$17.00

6 A particular cost is classified as 'semi-variable'.

What effect would a 15% reduction in activity have on the unit cost?

- A Increase by less than 15%
- B Increase by 15%
- C Reduce by less than 15%
- D Remain constant

7 The inventory record of a raw material has the following details for a week:

Day	Cost (\$ per unit)	Receipts (units)	Issues (units)
2	260	18	
3	270	12	
4			10
6			14

The first-in first-out (FIFO) method is used for pricing issues. There was no raw material at the start of Day 1.

Which was the value of the inventory on Day 5?

- A \$5,200
- B \$5,220
- C \$5,320
- D \$5,400

8 Average usage of a raw material is 200 kg per day, the average ordering lead time is five days, the reorder level is 1,600 kg and the reorder quantity is 2,800 kg.

What is the average raw material inventory?

- A 800 kg
- B 1,400 kg
- C 1,700 kg
- D 2,000 kg

9 The costs associated with labour turnover can be classified as 'preventative' costs or 'replacement' costs.

Which of the following is a preventative cost?

- A Provision of leisure facilities for employees
- B Lower productivity of new employees
- C Increased wastage of raw materials
- D Training costs for new employees

10 Consider the following statements, regarding the reapportionment of service cost centre overheads to production cost centres, where reciprocal services exist:

1. The direct method results in costs being reapportioned between service cost centres
2. If the direct method is used, the order in which the service cost centre overheads are reapportioned is irrelevant
3. The step down method results in costs being reapportioned between service cost centres
4. If the step down method is used, the order in which the service cost centre overheads are reapportioned is irrelevant

Which statement(s) is/are correct?

- A 1, 2 and 4
- B 1, 3 and 4
- C 2 only
- D 2 and 3

- 11 A firm uses job costing. Details of the three jobs worked on during a period are:

	Job BA	Job DC	Job FE
	\$	\$	\$
Opening work-in-progress	22,760	3,190	–
Direct materials in the period	4,620	11,660	14,335
Direct labour in the period	12,125	10,520	7,695

Overheads are absorbed at 40% of prime cost in each period. Jobs DC and FE remained incomplete at the end of the period.

What is the value of the closing work-in-progress?

- A \$61,894
 - B \$65,084
 - C \$66,360
 - D \$68,952
- 12 Costs totalling \$4,250 were incurred in a process in a period. 80 units of output were rejected and destroyed in the period, 20 units more than allowed for as a normal loss, leaving 420 units of good production to be transferred to finished goods.

What is the amount written off as abnormal loss (to the nearest \$)?

- A \$170
 - B \$177
 - C \$193
 - D \$202
- 13 Consider the following statements relating to process costing:

Statement 1: normal losses are credited to the process account at the cost per unit incurred on normal production
Statement 2: abnormal gains are debited to the process account at the cost per unit incurred on normal production

Which statement(s) is/are true?

- A Both statements are true
 - B Neither statement is true
 - C Statement 1 only is true
 - D Statement 2 only is true
- 14 Conversion costs incurred in a process totalled \$71,628 in a period. There was no work-in-progress at the beginning of the period. 9,000 units of product were completed in the period, leaving 1,000 units, 40% complete as to conversion costs, still in-progress at the end of the period.

What was the conversion cost per unit of production?

- A \$7.16
- B \$7.46
- C \$7.62
- D \$7.96

15 What is a by-product?

- A A product that has insignificant saleable value compared with the joint products
- B A product that has no saleable value
- C A product that can be further processed
- D A waste product that has to be disposed of at a cost

16 5,400 units of a company's single product were sold for a total revenue of \$140,400. Fixed costs in the period were \$39,420 and net profit was \$11,880.

What was the contribution per unit?

- A \$7.30
- B \$9.50
- C \$16.50
- D \$18.70

17 A company manufactures and sells four products. Details are as follows:

	Product			
	P	Q	R	S
	\$	\$	\$	\$
Contribution per unit	16.0	14.5	17.6	19.0
Net profit per unit	4.6	4.8	5.2	5.0
Contribution per machine hour	5.0	4.8	4.4	3.8
Net profit per machine hour	1.4	1.6	1.3	1.0

Machine hours available in the next period will not be sufficient to meet production requirements. There are no product-specific fixed costs.

What should be the order of priority for production in order to maximise profit?

- A Product P, Product Q, Product R, Product S
- B Product Q, Product P, Product R, Product S
- C Product R, Product S, Product Q, Product P
- D Product S, Product R, Product P, Product Q

18 A company has incurred development costs of \$25,000 to date on a proposed new product. Further costs of \$18,000 would be required to complete the development of the product.

In deciding whether to continue with the new product development which of the following is correct regarding development costs?

	Sunk cost	Incremental cost
A	\$0	\$43,000
B	\$18,000	\$25,000
C	\$25,000	\$18,000
D	\$43,000	\$0

19 A company is proposing to launch a new product. Incremental net cash inflows of \$36,000 per annum for five years are expected, starting at Time 1.

An existing machine, with a net book value of \$85,000, would be used to manufacture the new product. The machine could otherwise be sold now, Time 0, for \$60,000. The machine, if used for the manufacture of the new product, would be depreciated on a straight-line basis over five years, starting at Time 1.

What are the relevant amounts that should be used, at Time 0 and Time 1, in the discounted cash flow appraisal of the project?

	Time 0	Time 1
A	\$0	\$19,000
B	\$0	\$24,000
C	(\$60,000)	\$36,000
D	(\$85,000)	\$36,000

20 An investment project has net present values as follows:

Discount rate 11% per annum: net present value \$35,170 positive

Discount rate 15% per annum: net present value \$6,040 positive.

What is the best estimate of the internal rate of return?

- A** 14.5%
- B** 15.8%
- C** 19.5%
- D** 19.8%

(40 marks)

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

1 The following is a list of unit costs for a single product, incurred in a period, using either marginal costing or absorption costing:

	Marginal costing		Absorption costing	
	\$	\$	\$	\$
Production costs:				
Prime cost	4.20		4.20	
Variable overhead	0.60		0.60	
Fixed overhead	—		3.80	
		4.80		8.60
Selling & administration costs:				
Variable overhead	1.00		1.00	
Fixed overhead	—		2.90	
		1.00		3.90
Total		5.80		12.50

The selling price of the product, throughout the period, was \$14.50 per unit. 11,400 units of the product were manufactured in the period during which 11,200 units were sold. There were no finished goods at the beginning of the period. The fixed production overhead costs per unit listed above are based on the production units for the period and the fixed selling and administration overhead costs per unit are based on the sales units.

Required:

- (a) **Prepare an absorption costing profit statement for the period. The statement should include the total cost of production, closing inventory value, total gross profit and total net profit.** (8 marks)
- (b) **Using marginal costing, calculate for the period:**
 - (i) **total contribution;** (3 marks)
 - (ii) **total net profit;** (3 marks)
 - (iii) **break-even sales revenue.** (3 marks)
- (c) **Explain why the net profit using absorption costing differs from that using marginal costing.** (2 marks)

(19 marks)

- 2 A passenger transport company operates four coaches, each with a capacity for 25 passengers. The company operates on two routes with two coaches on each route. Each coach on Route A completes 12 journeys per day and on Route B 10 journeys per day. The coaches operate for six days per week and for 52 weeks per year.

The company is analysing performance on each route and has gathered the following route data for the last 52 weeks:

	Route A	Route B
Average number of passengers per journey	13	11
Average fare paid per passenger, per journey	\$2.26	\$2.80
Route length per journey (kilometres)	14	19

Operating cost data for the last 52 week period is as follows:

Drivers' wages:	\$110 per coach per working day
Fuel and maintenance:	\$0.8932 per kilometre
Vehicle tax and insurance:	\$3,870 per coach for the period
Apportioned fixed costs:	\$21,760 per route for the period

Required:

Calculate, for the 52 week period, the:

- (a) **total cost per coach on each route;** (10 marks)
- (b) **cost per kilometre on each route (to four decimal places of \$);** (5 marks)
- (c) **profit per kilometre on each route.** (5 marks)

(20 marks)

- 3 The following information is available for two production cost centres in a factory for a period:

	Cost centre X	Cost centre Y
Budgeted costs	\$28,556	\$54,264
Budgeted hours	1,210 machine hours	6,460 labour hours
Predetermined absorption rate	\$23.60 per machine hour	\$8.40 per labour hour
Actual costs	\$29,609	\$52,567
Actual hours	1,235 machine hours	6,395 labour hours

Required:

- (a) **Calculate the over or under absorption of overhead for the period in each cost centre.** (6 marks)
- (b) **Explain two advantages of using predetermined, as opposed to actual, overhead absorption rates.** (4 marks)

(10 marks)

4 The following summary shows the selling prices, costs and output of joint products JP1 and JP2 from a manufacturing process:

	Product JP1	Product JP2
Selling price	\$20.00 per kg	\$10.00 per kg
Share of joint costs	\$12.00 per kg	\$12.00 per kg
Profit/(loss)	\$8.00 per kg	(\$2.00) per kg
Output	100 kg	120 kg

Both products can be sold at the split-off point but Product JP1 can also be further processed to form Product FP1. Relevant selling price, cost and output information for Product FP1 is:

	Product FP1
Selling price	\$25.00 per kg
Further processing costs	\$3.50 per kg
Output	100 kg

Required:

- (a) Calculate the total joint costs for the period and state the method used to apportion them in the situation above. (3 marks)
- (b) Comment on each of the following statements, justifying your comments with supporting calculations:
- (i) Product JP2 should be discontinued because it makes a loss of \$2.00 per unit; (4 marks)
 - (ii) Product JP1 should be further processed. (4 marks)

(11 marks)

End of Question Paper