

Certified Accounting Technician Examination
Intermediate Level

Accounting for Costs

Thursday 5 June 2008

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

ACCA

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 Which of the following are characteristics of management accounting information?

- (1) Forward looking
- (2) Legally required
- (3) Concerned with cost control
- (4) Follows clearly defined standards

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

2 Which of the following best describes an investment centre?

- A** Part of a business that uses fixed assets
- B** Part of a business that provides a service for other parts of the business
- C** Part of a business where management is only responsible for investment costs
- D** Part of a business where management is responsible for capital investment as well as profit

3 Consider the following four accounts:

- (1) Cost ledger control
- (2) Financial ledger control
- (3) Receivables control
- (4) Work-in-progress control

Which of the accounts are features of an integrated accounting system?

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

4 When goods are sold, what double-entry would be made to record the transfer of costs?

- | | Debit | Credit |
|----------|------------------------|------------------------|
| A | Finished goods account | Cost of sales account |
| B | Sales account | Cost of sales account |
| C | Cost of sales account | Sales account |
| D | Cost of sales account | Finished goods account |

5 An extract from the list of accounts of a chemical processor follows:

	Cost codes
Direct materials	001 to 099
Direct labour	100 to 199
Indirect materials	200 to 299
Indirect labour	300 to 399

Which of the following items is coded **INCORRECTLY**?

Description	Code
A Chemical C6 used in process	061
B Wages of process supervisor	106
C Chemicals used for cleaning	229
D Wages of maintenance engineer	345

6 Which of the following may be used for capturing or storing management accounting data by computer?

- (1) Scanner
- (2) Printer
- (3) CD
- (4) Bar code reader

- A** 1 and 2 only
- B** 3 and 4 only
- C** 1, 3 and 4 only
- D** All four items

7 Which of the following would be regarded as a stepped-fixed cost in the annual operation of a motor vehicle?

- A** Hire purchase payments
- B** Insurance
- C** Petrol
- D** Tyre replacement

8 The cost per unit of an expense item at different levels of activity is shown below:

Activity (units)	Cost per unit (\$)
200	12.00
300	8.00
400	7.00
500	5.60

What is the behavioural classification of the expense item?

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

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

What is the effect on the TOTAL COST if activity increases by 20%?

- A Stays the same
- B Decreases by less than 20%
- C Increases by 20%
- D Increases by less than 20%

10 Analysis of the gross wages in a factory reveals the following:

	Direct operatives (\$)	Indirect operatives (\$)
Normal hours worked at basic rate	36,260	14,320
Overtime hours at basic rate	4,112	1,760
Overtime premium	1,028	440

Overtime working is a usual aspect of running the business.

What amount would be recorded as a direct cost?

- A \$36,260
- B \$40,372
- C \$41,400
- D \$41,840

11 The production volume ratio for a period was 95%.

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

12 A cost centre is charged with the following actual overhead costs for a period:

Allocated costs	\$28,720
Apportioned costs	\$10,260

Overheads were absorbed in the cost centre over the period on 1,760 actual labour hours at a predetermined absorption rate of \$21.50 per hour. Actual labour hours worked in the period were 90 hours above budget.

What was the overhead over/under absorption in the cost centre?

- A \$1,140
- B \$1,935
- C \$3,055
- D \$9,120

13 A company sells more than it manufactures in a period.

Which of the following explains the difference in profit between absorption and marginal costing in the above situation?

- A Absorption costing profit is higher because of the difference in inventory levels
- B Absorption costing profit is lower because of the difference in inventory levels
- C Absorption costing profit is higher because of overhead over-absorption
- D Absorption costing profit is lower because of overhead under-absorption

14 The production cost of Job J6 was \$12,600. Administration costs are charged to jobs at 30% of production cost. The amount charged to the customer is calculated to provide a GROSS PROFIT MARGIN of 40%.

What is the net profit on Job J6?

- A \$1,260
- B \$4,620
- C \$10,920
- D \$15,120

15 The following information relates to a process for a period:

Input costs	\$45,705
Output passing inspection	9,600 units
Normal inspection loss	300 units (sold for \$2.00 per unit)
Abnormal inspection loss	100 units (sold for \$2.00 per unit)

What was the cost per unit (to two decimal places of \$)?

- A \$4.49
- B \$4.56
- C \$4.65
- D \$4.76

16 A process produces two joint products, X and Y, with selling prices of \$10 per litre and \$20 per litre respectively. In a period, joint costs were \$56,000 and finished output was:

Product X	5,000 litres
Product Y	2,000 litres

The sales value method is used to apportion joint costs.

What amount of joint costs should be apportioned to Product Y?

- A \$16,000
- B \$24,889
- C \$31,111
- D \$37,333

17 **What is the effective annual rate of interest of 4.3% compounded every six months?**

- A 8.60%
- B 8.78%
- C 9.25%
- D 10.88%

- 18 Net cash flows, estimated for a capital investment project, have been discounted at four discount rates with the following results:

	Discount rate			
	5%	10%	15%	20%
Net present value (\$000)	92.9	39.1	(4.8)	(40.9)

What is the best estimate of the IRR using only the above data as appropriate?

- A 13.6%
 B 14.5%
 C 15.4%
 D 15.7%
- 19 A project, investing in new machinery, has an estimated five year life. The cost of capital is 10% per annum. Estimated cash flows are:

Time	Cash flows
0 (cost)	(\$186,000)
1 to 5 (inflows)	\$56,000 per annum
5 (residual value)	\$10,000

The cumulative discount factor at 10% for Time 1 to 5 is 3.79. The discount factor at 10% for Time 5 is 0.62.

What is the net present value of the project?

- A \$16,240
 B \$20,040
 C \$32,440
 D \$36,240
- 20 A capital investment project requires an initial investment sum. The investment returns are expected to be a constant amount in each year of the life of the investment.

How is the payback period for the investment calculated?

- A Investment sum ÷ net cash inflow per annum
 B Investment sum ÷ net profit per annum
 C (Investment sum + residual value) ÷ net cash inflow per annum
 D (Investment sum + residual value) ÷ net profit per annum

(40 marks)

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

1 At the beginning of Month 2, the balance in the stores ledger for Material M27 was 2,400 kg at \$3.60 per kg. The movements of the material in Month 2, and the prices per kg, were as follows:

Day	Receipts		Issues	
	Quantity kg	Price \$/kg	Quantity kg	Price \$/kg
4	5,000	3.65		
6			4,000	3.65
17	6,000	3.70		

Required:

- (a) State the pricing method used to value the material issues on Day 6. (2 marks)
- (b) Calculate the closing inventory value at the end of Month 2. (3 marks)

In Month 3, no further purchases of Material M27 were made. Issues in the month were:

Day 2	3,200 kg
Day 10	4,300 kg

Required:

- (c) Prepare the inventory record for Material M27 for Month 3, showing both the quantity AND the value of:
 - (i) each of the issues; and (4 marks)
 - (ii) the balance remaining after each issue. (4 marks)

(13 marks)

- 2 A company manufactures two products, Product A manufactured in Process Y and Product B manufactured in Process Z. The following information is available for a period:

	Process Y	Process Z
Opening work-in-progress	Nil	Nil
Raw materials input	\$162,180 (18,000 kg)	\$210,090
Conversion costs	\$94,050	\$287,760
Waste material	1,000 kg (Note 1)	Nil
Sales value of waste material	\$1.60 per kg	Nil
Output of finished product	17,000 kg	12,600 units
Closing work-in-progress	Nil	1,500 units (Note 2)

Note 1

In Process Y the normal amount of waste material is 5% of the weight of raw materials input.

Note 2

In Process Z the closing work-in-progress is 100% complete as to raw materials and 60% complete as to conversion costs.

Required:

(a) For Process Y, calculate the:

- (i) cost per kg of the expected production of Product A; and** (8 marks)
- (ii) total cost of the finished output of Product A.** (2 marks)

(b) For Process Z, calculate the equivalent units of production of Product B in respect of conversion costs.

(3 marks)

(13 marks)

3 Three of the cost items that are included in the production overhead budget for a factory for a period are:

Machine maintenance labour	\$33,600
Power	\$26,000
Rent and rates	\$39,800

Production overheads are currently absorbed using a single factory-wide rate.

It has been suggested that a separate overhead absorption rate should be calculated for each of the three groups of machines in the factory. The following additional budgeted data has been collected for the period:

	Machine Group			Total
	MG1	MG2	MG3	
Floor area (m ²)	1,600	1,400	1,000	4,000
Machine values (\$'000)	320	250	230	800
Kilowatt hours ('000)	220	110	110	440
Machine maintenance (labour hours)	600	400	600	1,600
Number of indirect workers	4	4	2	10
Machine hours	8,200	5,600	4,900	18,700

Required:

- (a) Briefly explain one reason why a separate overhead absorption rate for each machine group would be preferable to a single factory-wide rate. (2 marks)
- (b) Apportion each of the three items of budgeted overhead cost (machine maintenance labour, power and rent and rates) to the three machine groups. (7 marks)

The totals of ALL budgeted production overhead cost items, allocated and apportioned to the three machine groups, are as follows:

MG1	\$129,560
MG2	\$107,520
MG3	\$119,070

Required:

- (c) Calculate an appropriate absorption rate for each machine group. (3 marks)
- (d) Calculate the production overhead that would be charged to Job J21 which requires five hours on MG1 machines, two hours on MG2 machines and three hours on MG3 machines. (3 marks)

(15 marks)

4 (a) Define the term 'limiting factor' and give an example.

(3 marks)

(b) A company manufactures three products (X, Y and Z). All direct operatives are the same grade and are paid at \$11 per hour. It is anticipated that there will be a shortage of direct operatives in the following period, which will prevent the company from achieving the following sales targets:

Product X	3,600 units
Product Y	8,000 units
Product Z	5,700 units

Selling prices and costs are:

	Product X \$ per unit	Product Y \$ per unit	Product Z \$ per unit
Selling prices	100.00	69.00	85.00
Variable costs:			
Production*	51.60	35.00	42.40
Non-production	5.00	3.95	4.25
Fixed costs:			
Production	27.20	19.80	21.00
Non-production	7.10	5.90	6.20
*includes the cost of direct operatives	24.20	16.50	17.60

The fixed costs per unit are based on achieving the sales targets. There would not be any savings in fixed costs if production and sales are at a lower level.

Required:

(i) Determine the production plan that would maximise profit in the following period, if the available direct operatives' hours total 26,400. (11 marks)

(ii) Calculate the total net profit in the following period based on the production plan in (b) above. (5 marks)

(19 marks)

End of Question Paper