

Examination Question and Answer Book

CIMA

Write your full examination number, your contact ID and your name on a double-sided card, which must be attached to this booklet here.

Foundation Level

Management Accounting Fundamentals

2

FMAF

19 November 2003
Wednesday afternoon

INSTRUCTIONS TO CANDIDATES

Read this page before you look at the questions

THIS QUESTION PAPER BOOKLET IS ALSO YOUR ANSWER BOOKLET.

Sufficient space has been provided for you to write your answers, and also for workings where questions require them. For section B questions, you must write your answers in the shaded space provided. Please note that you will NOT receive marks for your workings. Do not exceed the stated number of words. Do NOT remove any sheets from this booklet: cross through neatly any work that is not to be marked. Avoid the use of correction fluid.

You are allowed three hours to answer this question paper. All questions are compulsory.

Answer the ONE question in section A (this has 25 sub-questions)

Answer the THREE questions in section B)

You are advised to spend 10 minutes reading through the paper before starting to answer the questions.

You should spend no more than 85 minutes in total answering the ONE question in section A, which has 25 sub-questions.

You should spend no more than 85 minutes in total answering the THREE questions in section B.

Hand this entire booklet to the invigilators at the end of the examination. You are NOT permitted to leave the examination hall with this booklet.

Do NOT write your name or your contact ID anywhere on this booklet.

SECTION A — 50 MARKS

ANSWER ALL TWENTY-FIVE SUB-QUESTIONS – 2 MARKS EACH

Each of the sub-questions numbered from **1.1** to **1.25** inclusive, given below, has only **ONE** correct answer.

REQUIRED:

Place a circle "O" around the letter **A, B, C** or **D** that gives the correct answer to each sub-question.

If you wish to change your mind about an answer, block out your first answer completely and then circle another letter. You will **NOT** receive marks if more than one letter is circled.

Please note that you will **NOT** receive marks for any workings to these sub-questions. Sufficient space has been provided for you to do your workings where these sub-questions require them.

Question One

1.1 The benefits of using a computerised budget system as opposed to a manual one are:

- (i) data used in drawing up the budget can be processed more quickly;
- (ii) budget targets will be more acceptable to the managers responsible for their achievement;
- (iii) changes in variables can be incorporated into the budget more quickly;
- (iv) the principal budget factor can be identified before budget preparation begins;
- (v) continuous budgeting is only possible using a computerised system.

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

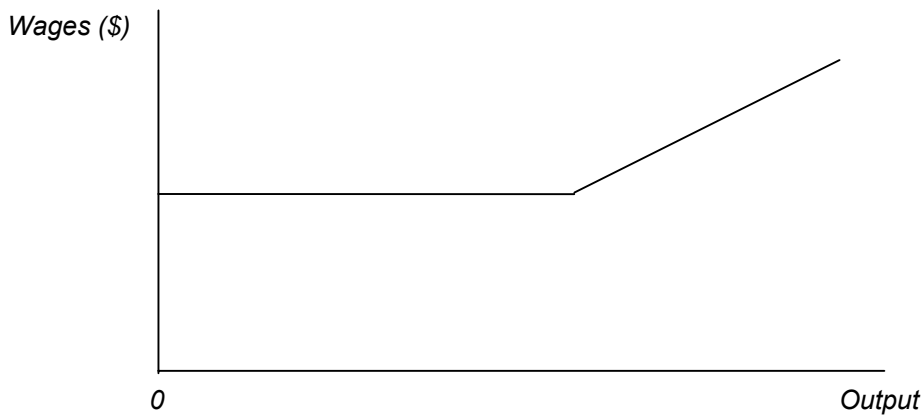
1.2 A firm calculates the material price variance when material is purchased. The accounting entries necessary to record a favourable material price variance in the ledger are:

	<i>Debit</i>	<i>Credit</i>
A	Material control account	Material variance account
B	Work-in-progress control account	Material variance account
C	Material variance account	Material control account
D	Material variance account	Work-in-progress control account

1.3 The accounting entries necessary to record an adverse labour efficiency variance in the firm's ledger are:

	<i>Debit</i>	<i>Credit</i>
A	Wages control account	Labour variance account
B	Labour variance account	Wages control account
C	Labour variance account	Work-in-progress control account
D	Work-in-progress control account	Labour variance account

1.4 The following graph shows the wages earned by an employee during a single day:



Which ONE of the remuneration systems listed below does the graph represent?

- A Differential piecework.
 - B A flat rate per hour with a premium for overtime working.
 - C Straight piecework.
 - D Piecework with a guaranteed minimum daily wage.
-

- 1.5** J Ltd uses standard absorption costing and absorbs production overheads on the basis of standard machine hours. The following budgeted and actual information applied in its last accounting period:

	<i>Budget</i>	<i>Actual</i>
Production overhead	\$180,000	\$178,080
Machine hours	50,000	48,260
Units produced	40,000	38,760

At the end of the period, production overhead will be reported as

- A** under-absorbed by \$4,344.
 - B** under-absorbed by \$3,660.
 - C** over-absorbed by \$4,344.
 - D** over-absorbed by \$3,660.
-

- 1.6** The Management Accountant of H Ltd has calculated the following variances for the last accounting period:

	\$
Total sales margin variance	11,245 (F)
Material usage variance	6,025 (F)
Labour rate variance	3,100 (A)
Fixed overhead volume variance	5,075 (F)
Fixed overhead expenditure variance	3,800 (A)
Variable overhead expenditure variance	2,415 (A)

All other variances were zero.

If the budgeted profit for the period was \$475,000, the actual profit reported was

- A** \$461,970.
 - B** \$465,685.
 - C** \$488,030.
 - D** \$497,345.
-

Use the following data to answer questions 1.7 and 1.8 below

E Ltd's stock purchases during a recent week were as follows:

<i>Day</i>	<i>Price per unit (\$)</i>	<i>Units purchased</i>
1	1.45	55
2	1.60	80
3	1.75	120
4	1.80	75
5	1.90	130

There was no stock at the beginning of the week. 420 units were issued to production during the week. The company updates its stock records after every transaction.

1.7 Using a first in, first out (FIFO) method of costing stock issues, the value of closing stock would be

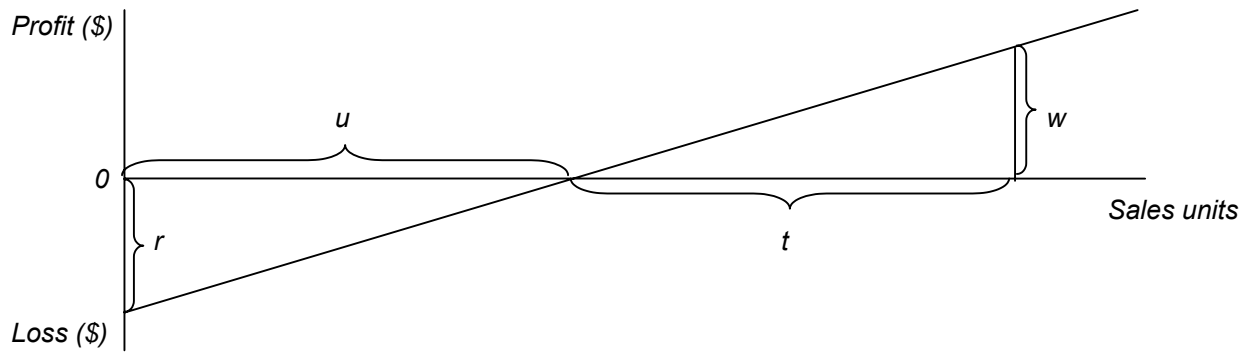
- A** \$58.00
- B** \$70.00
- C** \$72.00
- D** \$76.00

1.8 If E Ltd changes to the weighted average method of stock valuation, the effect on closing stock value and on profit for the week compared with the FIFO method will be

- | | <i>Closing stock value</i> | <i>Gross profit</i> |
|--|----------------------------|---------------------|
|--|----------------------------|---------------------|

Use the following data to answer questions 1.9 and 1.10 below

The diagram shows the profit-volume chart of Z Ltd for its last accounting period. The company made a profit of \$ w during the period.



1.9 An increase in the fixed costs per period (assuming the selling price per unit and the variable cost per unit remain unchanged), will result in

- A a reduction in r .
- B an increase in w .
- C a reduction in t .
- D no change in u .

1.10 The following results were achieved in the last accounting period:

$$r = \$50,000$$

$$w = \$16,000$$

$$t = 800 \text{ units}$$

$$u = 2,500 \text{ units}$$

The company expects to make and sell an additional 1,400 units in the next accounting period. If variable cost per unit, selling price per unit and total fixed costs remain unchanged, the effect on profit will be

- A an increase of \$10,500.
- B an increase of \$21,210.
- C an increase of \$28,000.
- D an increase of \$87,500.

1.11 A manufacturer of cell phones is considering the following actions. Which of these is likely to increase the manufacturer's C/S (contribution/sales) ratio?

- (i) taking advantage of quantity discounts for bulk purchases of material;
- (ii) introducing training programmes designed to improve labour efficiency;
- (iii) following the actions of a competitor who has cut prices substantially;
- (iv) reducing exports to countries where there is intense price competition;
- (v) offering retailers a lower price if they display the product more prominently.

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

1.12 An advertising agency uses a job costing system to calculate the cost of client contracts. Contract A42 is one of several contracts undertaken in the last accounting period. Costs associated with the contract consist of:

Direct materials	\$5,500
Direct expenses	\$14,500

Design staff worked 1,020 hours on contract A42, of which 120 hours were overtime. One third of these overtime hours were worked at the request of the client who wanted the contract to be completed quickly. Overtime is paid at a premium of 25% of the basic rate of \$24.00 per hour.

The prime cost of contract A42 is

- A** \$41,600.
 - B** \$44,480.
 - C** \$44,720.
 - D** \$45,200.
-

The following data are to be used to answer questions 1.13 and 1.14 below.

The following estimates have been prepared for a retailer's next budget period:

	\$
Sales	160,000
Opening debtors	27,500
Closing debtors	19,400
Opening stock	16,600
Closing stock	18,700

The gross profit margin on sales is budgeted at 55%.

1.13 The cash which the retailer expects to receive from customers during the budget period amounts to

- A** \$88,000.
- B** \$151,900.
- C** \$157,900.
- D** \$168,100.

1.14 The value of purchases made by the retailer during the budget period is expected to be

- A** \$69,900.
- B** \$74,100.
- C** \$85,900.
- D** \$90,100.

1.15 V Ltd buys IT support services from an outside agency. In its last four accounting periods, the charges made by the agency have been as follows:

<i>Period</i>	<i>Usage (hours)</i>	<i>Charge for services \$</i>
1	3,700	16,700
2	4,900	20,300
3	3,250	15,350
4	5,800	23,000

The agency did not increase its charging rates in periods 1 to 4. It has notified V Ltd that, in period 5, it will increase the fixed element of the charge by 5% and the variable element by 10%.

If V Ltd estimates its level of usage at 5,500 hours in period 5, the expected charge for IT support services will be

- A** \$23,485.
- B** \$24,030.
- C** \$25,020.
- D** \$26,010.

Use the following data to answer questions 1.16 and 1.17 below

A newly-formed company has drawn up the following budgets for its first two accounting periods:

	Period 1	Period 2
Sales units	9,500	10,300
Production units (equivalent to normal capacity)	10,000	10,000

The following budgeted information applies to both periods:

	\$
Selling price per unit	6.40
Variable cost per unit	3.60
Fixed production overhead per period	15,000

1.16 In period 1, the budgeted profit will be

- A** the same under both absorption costing and marginal costing.
- B** \$750 higher under marginal costing.
- C** \$750 higher under absorption costing.
- D** \$1,400 higher under absorption costing.

1.17 In period 2, everything was as budgeted, except for the fixed production overhead, which was \$15,700.

The reported profit, using absorption costing in period 2, would be

- A** \$12,300
- B** \$12,690
- C** \$13,140
- D** \$13,840

1.18 If fixed production overhead is over-absorbed in an accounting period, which ONE of the following combinations could have caused this result?

Fixed overhead expenditure variance and *Fixed overhead volume variance*

- A** \$4,200 (A) \$3,750 (F)
 - B** \$3,250 (A) \$4,170 (F)
 - C** \$2,240 (A) \$1,870 (A)
 - D** \$2,980 (F) \$3,690 (A)
-

1.19 A company undertaking long-term building contracts has a financial year end of 30 April. The following details on the purchase and use of machinery refer to contract A44, which was started on 1 May 2003 and is due for completion after 27 months.

1 July 2003: Machine 1 was purchased at a cost of \$55,000. It is to be used throughout the contract, and will be sold for \$6,400 when the contract finishes.

1 October 2003: Machine 2 was purchased at a cost of \$28,600. The machine will be scrapped at the end of contract A44, and is not expected to have any saleable value.

If the company's policy is to charge depreciation in equal monthly amounts, the balance sheet value of machinery on contract A44 at 30 April 2004 will be

- A** \$51,172.
- B** \$52,500.
- C** \$55,060.
- D** \$56,500.

Use the following data to answer questions 1.20 and 1.21 below

Standard direct labour cost of one unit of product Q (0.25 hours x \$12.00 per hour) is \$3.00.

The eight employees who make product Q work a seven-hour day. In a recent three-day period, results were as follows:

Actual units produced	650 units
Actual wages cost	\$2,275

During this period, there was a power failure. This meant that all work had to stop for 2 hours.

1.20 If the company reports idle time separately, the labour efficiency variance for the period is

- A** \$258 (A)
- B** \$126 (A)
- C** \$42 (F)
- D** \$126 (F)

1.21 The labour rate variance for the period is

- A** \$451 (A)
- B** \$259 (A)
- C** \$266 (F)
- D** \$375 (F)

1.22 G Ltd repairs electronic calculators. The wages budget for the last period was based on a standard repair time of 24 minutes per calculator and a standard wage rate of \$10.60 per hour.

Following the end of the budget period, it was reported that:

Number of repairs	31,000
Labour rate variance	\$3,100 (A)
Labour efficiency variance	Nil

Based on the above information, the actual wage rate during the period was

- A** \$10.35 per hour.
 - B** \$10.60 per hour.
 - C** \$10.85 per hour.
 - D** \$11.10 per hour.
-

1.23 Which ONE of the following factors could explain a favourable direct material usage variance?

- A** More staff were recruited to inspect for quality, resulting in a higher rejection rate.
 - B** When estimating the standard product cost, usage of material had been set using ideal standards.
 - C** The company had reduced training of production workers as part of a cost reduction exercise.
 - D** The material price variance was adverse.
-

1.24 S Ltd makes a single product. The budget for October 2003 contained the following details:

Sales volume	12,000 units
Selling price per unit	\$15.00
Cost per unit	\$9.50

The actions of a competitor and an unexpected fall in material prices meant that actual results were:

Sales volume	10,800 units
Selling price per unit	\$13.50
Cost per unit	\$8.70

The total sales margin variance for October was

- A** \$22,800 (A)
 - B** \$14,160 (A)
 - C** \$7,560 (A)
 - D** \$9,600 (F)
-

1.25 Which of the following is the responsibility of the budget committee?

- A** Taking corrective action to ensure that sales targets are achieved.
- B** Ensuring the sales budget is consistent with other budgets.
- C** Providing information on sales levels and prices in previous budget periods.
- D** Drawing up the sales budget.

(Total for Question One = 50 Marks)

End of Section A

SECTION B – 50 MARKS
ANSWER ALL THREE QUESTIONS

IMPORTANT

MARKS ARE AWARDED FOR COMPLETING THE SHADED BOXES WITH THE CORRECT ANSWER WHERE A MARK IS INDICATED IN THE RIGHT-HAND COLUMN.

DO NOT WRITE IN THE MARGINS NOR IN THE COLUMNS FOR USE BY MARKERS.

Question Two

N Ltd manufactures specialist equipment for hotels at two separate factories, Northern and Southern. Budgeted information for the next accounting period is as follows:

Northern factory

	Cost centres			Total
	<i>Laminating</i>	<i>Assembly</i>	<i>Finishing</i>	
	\$	\$	\$	\$
Overheads	160,000	270,000	150,000	580,000
Machine hours	4,000	30,000	5,000	39,000
Labour hours	20,000	1,500	1,700	23,200

The company currently absorbs production overheads on the basis of labour hours in the laminating cost centre, and on the basis of machine hours in the assembly and finishing cost centres.

An extract from the cost estimate for job X14, which will be completed in the next accounting period, is shown below:

Cost estimate – Job X14

The budgeted labour and machine hours for the job are:

	<i>Budgeted labour hours</i>	<i>Budgeted machine hours</i>
Laminating	90	15
Assembly	15	35
Finishing	5	30

The prime cost for the job is as follows:

	\$
Material	1,050
Direct labour (110 hours at \$14 per hour)	<u>1,540</u>
Prime cost	<u>2,590</u>

Required:		Marks available	For use by the first marker	For use by the second marker
Write your answers to parts (a) and (b) in the shaded boxes below				
(a)	The total production overhead absorbed by job X14 in the Laminating and Assembly cost centres is expected to be \$	3		
(b)	At the end of the next accounting period, the two additional items of information required to calculate over- or under-absorbed production overhead in the Finishing cost centre are (maximum of 5 words each)			
	(i)	1		
	and			
	(ii)	1		
	Sub-total:	5		

The company's stock ordering policy is based on the Economic Order Quantity (EOQ).

Note: EOQ basic model:

$$EOQ = \sqrt{\frac{2C_oD}{C_h}}$$

Where C_o = cost of placing an order
 C_h = cost of holding 1 unit in stock for 1 year
 D = annual demand

<i>Required:</i>				For use by the first marker	For use by the second marker
Write your answers to parts (g) and (h) in the shaded boxes below			Marks available		
(g)	The company will place		orders for stock item G per year.	3	
(h)	The total annual holding cost of stock item H is \$		per year.	3	
Sub-total:			6		

(Total for Question Two = 20 Marks)

Question Three continued

<i>Required:</i>		Marks available	For use by the first marker	For use by the second marker
Write your answers to parts (c) and (d) in the shaded boxes below				
(c)	If the Marketing Director's proposal is accepted, profit would be <input type="text" value="increased* / reduced*"/> (*delete as appropriate) by \$ <input type="text"/>	3		
(d)	The Chief Executive stated that the proposal to export product J will only be acceptable if it increases profit by \$1,500 per period. The amount of product J that must be exported each period to achieve this increase in profit is <input type="text"/> kgs.	2		
Sub-total:		5		

A management consultancy firm hired by M Ltd charges clients at a predetermined rate per hour, depending on whether senior consultants or junior staff are used. The rate charged per hour for senior consultants is 60% higher than that for junior staff. The firm's staff costs budget for the last accounting period was based on the following estimates:

Staff costs	\$225,000
Senior consultant hours	7,000
Junior staff hours	13,800

<i>Required:</i>		Marks available	For use by the first marker	For use by the second marker
Write your answer to part (e) in the shaded box below				
(e)	A project undertaken for M Ltd in the last accounting period required 12 hours of senior consultants' time and 20 hours of junior staff time. The charge to M Ltd for staff costs (to the nearest \$) would be \$ <input type="text"/>	4		
Sub-total:		4		

(Total for Question Three = 15 Marks)

Question Four

The Management Accountant of J Ltd, a supplier of farm machinery components, is compiling the budget for next year.

Forecast sales for the first seven months of 2004 are as follows:

Month	Sales (units)
January	5,500
February	5,800
March	5,600
April	4,900
May	4,400
June	5,200
July	5,500

Other relevant information:

- Units held in stock at the end of the month are maintained at 25% of the following month's sales.
- Suppliers are paid two months after the stock has been received.
- The purchase cost per unit is \$7.20, increasing to \$8.40 from April 2004.
- The warehouse section consists of 4 employees who each earn \$950.00 per month, and a supervisor who earns \$1,200.00 per month. A monthly bonus equivalent to 15% of normal earnings is paid to everyone in the warehouse section if sales exceed 5,500 units per month. Normal wages are paid in the month in which they arise. Any bonus is paid one month after it is earned.

Required:			Marks available	For use by the first marker	For use by the second marker	
Write your answers to parts (a) to (c) in the shaded boxes below						
(a)	The purchases in May will be		units	3		
(b)	The amount paid to suppliers in June will be		\$	3		
(c)	The total cash paid for wages in April will be		\$	3		
			sub-total:	9		

J Ltd intends to develop a consulting service in the areas of farm machine maintenance, crop protection and farm management. Estimates for each type of contract for the next accounting period are as follows:

	<i>Farm machine maintenance contract</i>	<i>Crop protection contract</i>	<i>Farm management contract</i>
	\$	\$	\$
Fee per contract	4,500	7,000	7,350
Variable cost per contract:			
Salaries (\$160 per chargeable hour)	2,400	4,800	2,800
Other variable costs	300	130	210
Chargeable consultant hours per contract	15 hours	30 hours	17.5 hours
Maximum demand	95 contracts	45 contracts	70 contracts

Consulting skills are in short supply, with the result that J Ltd will only be able to employ three consultants who will each spend 950 hours working on contracts during the period.

<i>Required:</i>			Marks available	For use by the first marker	For use by the second marker
Write your answers to parts (d) and (e) in the shaded boxes below					
(d)	The shortage of consulting hours amounts to		2		
(e)	If the fixed costs of providing the consulting service are estimated at \$350,000 for the next accounting period, the maximum profit that J Ltd will be able to achieve is		4		
	Sub-total:		6		

(Total for Question Four = 15 Marks)

End of Question Paper