



**The Association of Business Executives**

**NQF**

**Introduction to Cost and  
Management Accounting**

**Mark Scheme**

**Unit Title:** Introduction to Cost and Management Accounting

**Unit Code:** 6.02 ICMA

**Session:** June 2015

**Question 1**

- (a) Calculate the cost of an issue of 60 units of AB20 on a FIFO basis. (7 marks)
- (b) It has been suggested that the company should change its policy and issue stock in future on a LIFO basis. Calculate the cost of an issue of 60 units of AB20 on a LIFO basis. (7 marks)
- (c) Explain what effect the change in valuation method will have on the calculation of the value of stock remaining. (2 marks)
- (d) Explain what effect the change in valuation method will have on the calculation of cost of goods sold and therefore on the gross profit. (4 marks)
- (e) Explain why it is important that the company can calculate the value of stock accurately. (3 marks)
- (f) Recently it was discovered that there was no stock of component AB20 remaining and production was disrupted. According to the stock record card there should have been 30 units in stock. You have been asked to investigate the reasons for this. Identify the two people to whom you would address your query in respect of the missing stock. (2 marks)

Workings	15 April	30	@	5.00	150.00
	3 May	50	@	5.50	275.00
	27 May	50	@	5.80	290.00

(a)  $30 @ 5.00 = 150.00$  (3)  
 $30 @ 5.50 = 165.00$  (3)  
315.00

(b)  $50 @ 5.80 = 290.00$  (3)  
 $10 @ 5.50 = 55.00$  (3)  
345.00

(c) Reduces value of closing stock (1) by 30.00 (1)

(d) Increases cost of sales (1) by 30.00 (1)  
Reduces gross profit (1) by 30.00 (1)

(e) Stock is a very valuable asset (1)  
Value affects calculation of profit (1)

(f) Warehouse supervisor in case stock has been put into the wrong location (1)  
Purchases manager to confirm quantity actually ordered is as recorded (1)

(g) Purchasing manager to confirm goods ordered were to correct specification (1)

(h) Accounts payable to investigate reason for late payment (1) and to correct the situation (1)

**Total Maximum Marks for Q1      25 marks**

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**Question 2**

(a) State whether each of the following is a direct or indirect cost:

- (i) Manager's salary
- (ii) Manager's bonus
- (iii) Supervisors' hourly pay
- (iv) Supervisors' bonus
- (v) Assembly technicians' hourly pay
- (vi) Assembly technicians' bonus
- (vii) Cleaners' hourly pay

**(7 marks)**

(b) Calculate the following, showing full workings:

# FINAL VERSION: TO BE USED FOR MARKING

- (i) Direct labour cost for the month (7 marks)  
 (ii) Indirect labour cost for the month (6 marks)  
 (iii) The direct labour cost of one wheelbarrow (2 marks)  
**(c)** Explain why it is necessary for the company to calculate and accurately record the cost of labour for the production department. (3 marks)

**(a)**

- (i) Indirect (1)  
 (ii) Indirect (1)  
 (iii) Indirect (1)  
 (iv) Indirect (1)  
 (v) Direct (1)  
 (vi) Direct (1)  
 (vii) Indirect (1)

**(b)** (i)  $8 \times 21 \times 7.5 \times 10 = 12600$  (2)  
 $2 \times 16 \times 7.5 \times 10 = 2400$  (2)  
 $3 \times 3 \times 10 = 90$  (2)  
 $480 \times 1 = 480$  (1)  
 = 15570

(ii) O/T premium  $3 \times 3 \times 5 = 45$  (1)  
 Manager = 2500 (1)  
 SV  $2 \times 21 \times 7.5 \times 12 = 3780$  (1)  
 SV O/T  $1 \times 3 \times 3 \times 18 = 162$  (1)  
 Hol  $2 \times 5 \times 7.5 \times 10 = 750$  (1)  
 CIn  $2 \times 21 \times 7.5 \times 8 = 2520$  (1)  
 = 9757

(iii)  $15570 / 480 = \text{£}32.44$  (2)

c) Need accurate costs to:

- calculate profit
- value stock
- set labour budget
- set cash budget (1 mark per valid point, max 3)

**Total Maximum Marks for Q2      25 marks**

### Question 3

- (a)** State whether each of the items listed above is a direct or indirect overhead. (10 marks)  
**(b)** Calculate the total expense for each of the cost centres of Crofton Machinery Company. (8 marks)  
**(c)** Explain why it is advantageous for a company to be organised into cost centres. (5 marks)  
**(d)** Explain why it is necessary for overhead costs to be taken into account when calculating the cost of items produced. (2 marks)

<b>(a)</b> Admin salaries	Indirect
Factory rent	Direct
Heat and light for admin offices	Indirect
Factory cleaning materials	Indirect
Machine lubricant	Direct
Delivery van running expenses	Indirect
Salesmen's salaries	Indirect
Stationery	Indirect
Factory equipment maintenance	Direct

Telephone costs		Indirect	
<b>(b)</b> Admin	6,500 + 350 + 110 + 200	= 7,160	(2)
Production	1,800 + 160 + 540 + 350	= 2,850	(2)
Sales and M	4,300 + 110 + 200	= 4,610	(2)
Distribution	1,400 + 200	= 1,600	(2)

**(c)** Responsibility for costs can be allocated to different managers  
 Can help with cost control  
 Helps identify problem areas  
 Basis for reward system  
 Helps when setting prices  
 Helps in 'make or buy' decisions (1 mark each valid point, max 5)

**(d)** Production cannot take place without incurring overheads (1)  
 Need to ensure all costs are taken into account (1)

**Total Maximum Marks for Q3 25 marks**

**Question 4**

- (a)** Draw up the process account and thereby calculate the equivalent cost per litre of paint produced, showing clearly the value of any abnormal gain or loss. Calculate all figures to two decimal places. **(22 marks)**
- (b)** State whether this is an abnormal gain or an abnormal loss. **(1 mark)**
- (c)** Explain how the abnormal gain or loss will be treated in the final accounts. **(2 marks)**

**(a)**

<b>Process 1</b>							
M	10000 (1)	1.50 (1)	15000 (1)	NL	400 (2)	-	0 (2)
L			2400 (1)	FP	9000 (1)	2.00(2)	18000 (2)
O			1800 (1)	AL	600 (2)	2.00	1200 (2)
	10000 (1)		19200 (1)		10000 (1)		19200 (1)

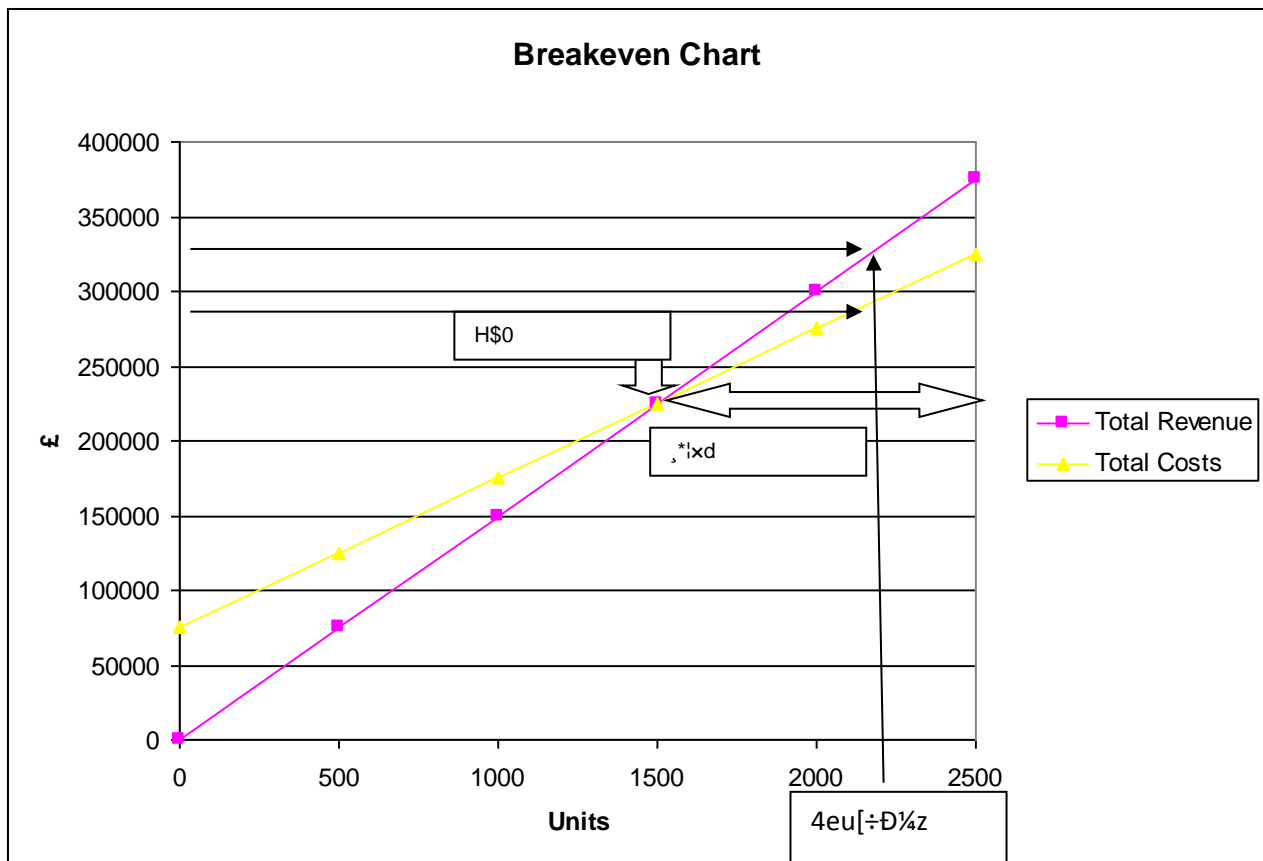
- (b)** loss (1)
- (c)** Will be charged to P&L (1) as an expense (1)

**Total Maximum Marks for Q4 25 marks**

**Question 5**

- (a)** Draw a breakeven chart for the new bicycle showing clearly the following items:
- (i) Total costs **(2 marks)**
  - (ii) Total revenues **(2 marks)**
  - (iii) The breakeven point **(2 marks)**
  - (iv) The margin of safety **(2 marks)**
- (b)** Use the breakeven chart to identify the approximate profit or loss if only 2,200 sales of the new bicycle are achieved. **(5 marks)**
- (c)** Prepare a short report to management explaining, on the basis of the above analysis, whether you feel the new product is viable. State any other factors which you feel should be taken into account. **(12 marks)**

**(a)**



Marks:

- 2 for total cost line
- 2 for sales revenue line
- 2 for breakeven point
- 2 for MOS

- (b)** 1 for 2200 units on x axis  
 1 for 330000 on y axis (approx)  
 1 for 295000 on y axis (approx)  
 1 for 'profit'  
 1 for 35000 (approx)

- (c)** To: Management (½)  
 From: Candidate (½)  
 Date: (½)  
 Subject: New product (½)

2 marks for each reasonable point such as:

- Projected sales exceed breakeven point
  - MOS is  $1000 / 2500 = 40\%$
  - How confident in projections?
  - Effect on existing product sales
  - Availability of skilled labour
  - Availability of materials
  - Can logistics cope with extra throughput?
- (max 10 marks)

**Total Maximum Marks for Q5      25 marks**

**Question 6**

- (a)** Explain the meaning of the term payback period. **(2 marks)**
- (b)** Calculate the payback period for the new machinery. **(8 marks)**
- (c)** Calculate the Net Present Value of the new machinery. **(8 marks)**
- (d)** Write a short report to management recommending whether or not you feel the new machinery is a good investment, based on the analysis you have carried out. **(7 marks)**

**(a)** Time taken (1) for future revenues to recover initial cash outlay (1).

Year	£	Cum	Disc	PV
0	(1,700)	(1,700)	1.000	(1,700)
1	400	(1,300)	.909	364
2	400	(900)	.826	330
3	400	(500)	.751	300
4	400	(100)	.683	273
5	600	500	.621	400

**(b)** 4 years (1) plus  $100/600 = 2$  months (1)

**(c)** NPV= (33) (2 marks)

**(d)** To: Management (½)  
 From: Candidate (½)  
 Date: (½)  
 Subject: New machinery (½)

NPV negative therefore fails to meet required return therefore should be rejected (2 marks)

*1 mark for other reasonable points such as:*

Payback is long at over 4 years

Substantial risk for limited return

Unless labour is in short supply stay as now (max 3 marks)

**Total Maximum Marks for Q6      25 marks**

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**Question 7**

- (a)** Explain the meaning of each of the following terms:
- (i) Standard material usage **(2 marks)**
  - (ii) Labour rate variance **(3 marks)**
  - (iii) Fixed overhead volume variance **(3 marks)**
  - (iv) Marginal cost **(2 marks)**
- (b)** Draw up a standard cost card for a hand-stitched leather belt. **(6 marks)**
- (c)** Draw up the fixed overhead control account showing clearly the entries for expenditure, overhead absorbed and any over- or under-absorbed overheads. **(3 marks)**
- (d)** Draw up the stores ledger control account showing clearly the entries for materials bought, materials issued to production, price variance and usage variance. **(3 marks)**
- (e)** Draw up the wages control account showing clearly the entries for wages paid, work in progress, labour rate variance and labour efficiency variance. **(3 marks)**

- (a)** (i) Amount required (1) to make one unit (1)  
 (ii) Difference between actual amount paid (1) and standard rate per hour times hours worked (2)  
 (iii) Difference between budgeted hours of output (1) and standard hours actually produced (2).  
 (iv) The direct cost (1) of producing one item (1) or the cost of producing one additional unit.

**(b)** Hand stitched leather belt

M	0.5 @ 10.00	=	5.00			(2)
L	0.2 @ 12.00	=	2.40			(2)
FO	0.2 @ 20.00	=	4.00			(2)

**(c)** F O Control

Bank	3000 (1)		WIP	3400 (1)
P&L (over absorbed)	400 (1)			
	3400			3400

**(d)** Stores ledger control account

Bank	4300 (1)		WIP	4250 (1)
			P&L (mat var)	50 (1)
	4300			4300

**(e)** Wages control

Bank	1850 (1)		WIP	2040 (1)
P&L (lab var)	190 (1)			
	2040			2040

**Total Maximum Marks for Q7      25 marks**

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**Question 8**

**(a)** Produce a statement reconciling budgeted costs and revenues and actual costs and revenues showing clearly the budgeted and actual profit. **(16 marks)**

**(b)** The sales manager feels that because he has reduced the price by only 10% to achieve an increase of 20% in sales volume the campaign has been a success. Write a short report to management explaining whether you feel the campaign has been a success. **(9 marks)**

<b>(a)</b>			<b>Budget</b>	<b>Actual</b>	<b>Var</b>
	Revenue	300 x 210	63000 (1)	68040 (1)	(5040) Fav (1)
	Material		27000 (1)	32400	5400 Adv (1)
	Labour		15000 (1)	18720	3720 Adv (1)
	Overheads		9000 (1)	9400	400 Adv (1)
	Profit		12000 (1)	7520 (1)	4480 Adv (1)

Budgeted profit		12000
Add (1)	Revenue variance	5040
Less (1)	Material variance	(5400)
Less (1)	Labour variance	(3720)
Less (1)	Overhead variance	(400)
Actual profit		7520

**(b)** To: Management (½)  
 From: Candidate (½)  
 Date: (½)  
 Subject: Sales campaign (½)

Campaign has not been a success because overall profit has reduced (2)

One mark for each other valid point such as:

Sales volume has increased

Costs have increased

Reduction in price has reduced profit per unit

Reduction has outweighed gain due to higher volume

Higher labour rate may be due to increased overtime

More wastage due to rushing to produce more output in the time available

Campaign may succeed in eliminating competitors enabling future price rises

*(Max 5 marks)*

**Total Maximum Marks for Q8      25 marks**