



---

**NQF**

**Certificate**

**6.2 ICMA**

**Introduction to Cost  
and Management Accounting**

**Monday 30 November 2015, Afternoon**

1. **Time allowed: 3 hours.**
2. **Answer any four questions.**
3. **All questions carry 25 marks. Marks for subdivisions of questions are shown in brackets.**
4. **No books, dictionaries, notes or any other written materials are allowed in this examination.**
5. **Calculators, including scientific calculators, are allowed provided they are not programmable and cannot store or recall information. All other electronic devices, including mobile phones, are not permitted.**
6. **Note that £1 = 100 pence (p).**
7. **Candidates who break ABE Examination Regulations will be disqualified from the examinations.**
8. **Question papers must not be removed from the examination room.**



**Answer any four questions**

---

**Q1** Linnell is an importer and distributor of children's clothing. Linnell's customers comprise retail shops who then sell products on to the final consumers.

Linnell provides a catalogue to its customers which lists the range of items available and gives a suggested retail price per item. The discount given to each customer varies according to the size of the order and the discount code of the items bought.

(a) Place the following documents relating to a transaction between Linnell and its customer into the correct order:

Invoice  
Remittance Advice  
Quotation  
Statement  
Purchase Order  
Enquiry  
Delivery Note

**(7 marks)**

(b) Produce a stock record card for the following products:

Item code:                   BJ12B  
Description:               Boys Jeans Age 12-13 Colour Blue  
Location:                   D45  
Reorder level:            150  
Reorder quantity:        400  
Manufacturer code:       I17  
Retail Price:              £9.99  
Discount code:            A

Linnell stock value is calculated on a FIFO basis.

**(8 marks)**

(c) The following receipts and issues took place during November 2015:

<b>Date</b>	<b>Description</b>	<b>Quantity</b>	<b>Total cost £</b>
1 November	Balance b/d	200	800.00
3 November	Issued	150	
7 November	Received	400	1,700.00
11 November	Issued	250	
18 November	Issued	100	
24 November	Received	400	1,560.00
28 November	Issued	150	

**Required:**

Enter these transactions on to the FIFO stock card and calculate:

- (i) The cost of each of the four stock issues **(4 marks)**  
(ii) The value of the closing stock **(2 marks)**

(d) On a recent routine stock count, the warehouse manager counted 225 units in the warehouse, but 275 were stated on the stock card. Identify four reasons why this might have happened. **(4 marks)**

**(Total 25 marks)**

**Q2** Employees at Pye Ltd are paid a basic wage of £8.00 per hour for the first 7 hours worked per day from Monday to Friday. Overtime is paid at time plus a quarter for all hours in excess of the standard 7 hours per day on weekdays. All time worked on Saturday or Sunday is paid at time plus a quarter.

During a 35-hour week employees are expected to produce 1,050 units which equates to 30 units per hour worked. In addition to their hourly pay a weekly bonus of 50 pence per unit is paid for every unit produced in excess of this level.

Employees normally work from 8.30 until 12.00 and 13.00 until 16.30 from Monday to Friday.

Basic hourly pay is treated as direct wages and any amounts other than this are classed as indirect wages.

During the week commencing 16 November 2015 Michael Rowe worked normal hours on Monday, Wednesday and Thursday. On Tuesday he worked the normal hours in the morning but then took only 30 minutes lunch break and worked from 12.30 until 18.00 that afternoon. On Friday he worked from 7.00 until 12.00 and then from 13.00 until 17.00 and on Saturday he worked from 9.00 until 12.00. During this week he produces 1,310 units.

**(a)** Produce a suitable employee timesheet to record sufficient details to be able to calculate:

Hours worked morning and afternoon each day  
Basic pay  
Overtime payable  
Bonus payable  
Total wages  
Total direct labour cost  
Total indirect labour cost

**(11 marks)**

**(b)** Using the employee timesheet prepared in part **(a)**, enter Michael's hours worked and units produced and calculate Michael's pay for the week. **(6 marks)**

**(c)** Present the ledger postings required for:

- (i) Direct wage cost
- (ii) Indirect wage cost

**(3 marks)**

**(d)** On receipt of his pay packet Michael complains that he feels he should have been paid a bonus for the full 260 units by which his output exceeded the standard weekly target of 1,050. Write a short memo to Michael explaining how his pay has been calculated.

**(5 marks)**

**(Total 25 marks)**

**Q3** Morgan Manufacturing has four departments. Manufacturing of plastic components is carried out in the largely automated moulding department and these components are then assembled into products by hand in the assembly department.

There is also a maintenance department which serves the two manufacturing departments and a stores department which provides a service to the other three departments.

The following budgeted shared costs have been calculated for the year ended 30 November 2015:

	£
Rent	500,000
Heating and lighting	10,000
Machinery Insurance	100,000
Depreciation	750,000
Machine Power	80,000
Supervision	95,000

In addition it is anticipated that the following directly allocated overheads will be incurred:

	£
Moulding	48,000
Assembly	17,000
Maintenance	11,000
Stores	9,000

The following information is also available:

	<b>Moulding</b>	<b>Assembly</b>	<b>Maintenance</b>	<b>Stores</b>
Floor area m <sup>2</sup>	8,000	6,000	2,000	4,000
Machinery value £	4,500,000		500,000	
Number of supervisors	1	2	1	1
Stores requisitions	12,480	12,480	6,240	
Maintenance hours	3,360	1,440		
Machine hours	50,000	4,000		
Labour hours	5,000	20,000		

Budgeted output for the year is 20,000 units.

- (a) Identify a suitable basis of apportionment for each of the shared costs. **(6 marks)**
- (b) Identify a suitable basis of re-apportionment for each of the two service departments. **(2 marks)**
- (c) Calculate overhead absorption rates for both the moulding and assembly departments. **(12 marks)**

Actual results are as follows:

Units produced	21,000
Actual expenditure moulding department £	1,400,000
Actual expenditure assembly department £	330,000

- (d) Calculate under-absorption or over-absorption of overheads for each of the moulding and assembly departments. **(3 marks)**
- (e) Explain how the figure calculated in part (d) will be treated in the accounts. **(2 marks)**
- (Total 25 marks)**

**Q4** Collins produces motor car accessories. The following cost card relates to a set of alloy wheels:

Material	20 kilograms	@	£6.50	per kilogram
Labour	1.2 hours	@	£16.00	per hour

Budgeted production for the month of November 2015 was 420 sets of wheels. The budgeted fixed overhead expenditure was £6,300. Following an increase in demand for the wheels actual results for the month were as follows:

Sets of wheels produced	500
Material used	10,250 kilograms at a total cost of £65,600
Labour cost	550 hours at a total cost of £11,000
Fixed overhead expenditure	£7,000

- (a) Calculate the standard full absorption cost of one set of wheels. **(4 marks)**
- (b) Calculate the actual full absorption cost of one set of wheels for the month of November 2015. **(5 marks)**

**Further information:**

The sales manager is confident that demand will remain at 500 sets of wheels per month and so it has been suggested that if additional machinery were installed it would be possible to produce wheels in batches of 100 sets at a time which would reduce the labour time per unit to 1 hour. It would also be possible to reduce by 5% the amount of material used.

Additional monthly maintenance costs and depreciation on the new machinery would increase the budgeted fixed cost per month to £9000.

- (c) Calculate the revised standard cost per set of wheels if the new machinery is purchased. **(4 marks)**
- (d) Calculate the selling price of one set of wheels if the new machinery is purchased and the company wishes to achieve a 25% profit margin. **(2 marks)**
- (e) Recommend whether the new machinery should be purchased. Give reasons for your answer. **(10 marks)**
- (Total 25 marks)**

**Q5** A company is looking to make the optimum use of its production facilities and has asked you to analyse the profitability of a range of products.

The following information has been gathered relating to three products which the company is currently manufacturing.

All the products use the same raw material which is bought at a cost of £16.00 per kilogram and all the products are made by the same workers who are paid at a rate of £12.00 per hour.

	<b>Arga</b> £	<b>Barga</b> £	<b>Carga</b> £
Selling Price	30.00	37.00	20.00
Material	8.00	16.00	6.40
Labour	9.60	7.20	4.80
Maximum demand (units)	5,000	3,000	6,000

- (a) Calculate the contribution per unit for each product. **(3 marks)**
- (b) Calculate the contribution earned per kilogram of material used for each product. **(3 marks)**
- (c) Calculate the contribution earned per labour hour for each product. **(3 marks)**
- (d) The company is able to produce a maximum of 12,000 units in total per month. Identify how many units of each product should be produced in order to achieve the greatest amount of profit. **(3 marks)**
- (e) Due to supplier problems it is anticipated that only 6,000 kilograms of material will be available for the month of December 2015. Identify how many units of each product should be made in order to make optimum use of the material available. **(3 marks)**

**Further information:**

In January it is anticipated that the supply of material will no longer be a problem but due to a major sporting event many staff will be on annual leave and so only 5,000 labour hours will be available.

- (f) Identify how many units of each product should be made in order to make optimum use of the labour hours available. **(3 marks)**
  - (g) Explain the effect that the various shortages of resources will have on profitability. Identify any steps you feel the company could take in future to minimise the loss of profits caused by these kinds of problems. **(7 marks)**
- (Total 25 marks)**

**Q6** The managing director of the Arco Biscuit Company has recently invested heavily in new machinery for his factory. The company has made a substantial profit and he is hoping to reduce this in order to avoid a large tax bill.

He is disappointed to learn that his new machinery will be recorded as an asset and not as an expense and will therefore not directly reduce the company profit straight away and he asks you to explain which items of expenditure are classed as revenue expenditure and which are capital expenditure.

**(a)** Identify whether each of the following items is capital expenditure or revenue expenditure:

- (i) Redecoration of the company boardroom **(1 mark)**
- (ii) A new delivery van **(1 mark)**
- (iii) Raw materials to make biscuits **(1 mark)**
- (iv) Repairs to packaging machinery **(1 mark)**
- (v) Installation costs for new production equipment **(1 mark)**
- (vi) A replacement heater for the factory **(1 mark)**

**(b)** Explain the factors that determine whether an item is capital or revenue expenditure. **(10 marks)**

**(c)** The company bank balance at 30 November 2014 was £21,568. During the year ended 30 November 2015 the company made a net profit of £569,702 and the bank balance at 30 November 2015 was £36,277.

- (i) Explain why the change in the bank balance is not the same as the net profit. **(3 marks)**
  - (ii) Identify three transactions that would cause the bank balance to reduce without affecting the net profit. **(3 marks)**
  - (iii) Identify three transactions that would affect the profit without causing any change to the bank balance. **(3 marks)**
- (Total 25 marks)**

**Q7** Below is the standard cost card for a garden ornament:

Material	0.5 kgs @ £17.00 = £8.50
Labour	0.2 hrs @ £14.00 = £2.80
Fixed overheads	0.2 hrs @ £12.50 = £2.50

The budgeted output for the month of November 2015 was 16,000 units and actual results were as follows:

Units produced	17,000
Material used 9,350 kilograms at a total cost of	£149,600
Labour utilised 3,400 hours at a total cost of	£47,600
Fixed overhead expenditure was	£45,000

**(a)** Calculate the budgeted fixed overhead expenditure for the month. **(2 marks)**

- (b) Calculate the following variances and for each variance, state whether it is favourable or adverse:
- |   |           |
|---|-----------|
| (i) Material usage variance               | (2 marks) |
| (ii) Material price variance              | (2 marks) |
| (iii) Labour efficiency variance          | (2 marks) |
| (iv) Labour rate variance                 | (2 marks) |
| (v) Fixed overhead expenditure variance   | (2 marks) |
| (vi) Fixed overhead volume variance       | (2 marks) |
| (vii) Fixed overhead capacity variance    | (2 marks) |
| (viii) Fixed overhead efficiency variance | (2 marks) |
- (c) Produce a statement reconciling the standard cost of production to the actual cost of production. (7 marks)
- (Total 25 marks)**

**Q8** Davis Manufacturing is making plans for the forthcoming year and has asked for your assistance in setting the price of a new product.

Market research has indicated that there is considerable competition and the sales volume that will be achieved will vary greatly depending on the price charged for the product.

Direct costs of making the product comprise:

Material 0.3 kilograms @ £9.00 per kilogram  
 Labour 0.5 hours @ £12.00 per hour

It has been calculated that fixed overheads will amount to £60,000 for levels of production up to 15,000 units and an additional £20,000 of fixed overhead costs will be incurred for levels of production any higher than this. The maximum output that can be achieved is 30,000 units.

Sales volume has been forecast as follows:

- at a selling price of £20 sales of 14,000 units can be achieved
- at a selling price of £18 sales of 20,000 units can be achieved
- at a selling price of £16 sales of 24,000 units can be achieved

- (a) Prepare a budget for each of the three different sales volume levels showing clearly the profit or loss that will be achieved at each level. (12 marks)
- (b) (i) State the price at which you feel the product should be sold, giving reasons for your recommended price (3 marks)
- (ii) Identify situations when other the options might be preferable (2 marks)
- (iii) Explain why it is necessary to prepare a budget (2 marks)
- (c) Explain the meaning of the following terms:
- |                          |           |
|--------------------------|-----------|
| (i) Standard labour cost | (2 marks) |
| (ii) Unit contribution   | (2 marks) |
| (iii) Fixed overhead     | (2 marks) |
- (Total 25 marks)**

---

**End of question paper**