



The Association of Business Executives

NQF

Certificate

6.2 ICMA

**Introduction to Cost
and Management Accounting**

Monday 8 June 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 The ACME Bicycle Company keeps stock of a wide range of spare parts for use in the manufacture and repair of bicycles.

Stock issues are valued on a FIFO basis.

At 31 May 2015 according to the stock record for part AB20 the following units were in stock:

30 units received on 15 April 2015 @ £5.00 each

50 units received on 3 May 2015 @ £5.50 each

50 units received on 27 May 2015 @ £5.80 each

(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)**

(Total 25 marks)

Q2 The production department of the Belvoir Wheelbarrow Company comprises the following:

- One Manager who is paid an annual salary of £30,000 plus a bonus of 1% of the department's annual net profit. He is entitled to five weeks' annual paid leave each year. All other employees are entitled to four weeks' annual paid leave each year.
- Two Supervisors who are paid at an hourly rate of £12.00 and a bonus of £100.00 each if production for the month exceeds 500 wheelbarrows.
- Ten Assembly Technicians who are paid at a rate of £10.00 per hour. Each technician is also paid £1.00 bonus for every wheelbarrow he or she produces.
- Two Factory Cleaners paid at a rate of £8.00 per hour.

(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)

Additional information:

The company operates from Monday to Friday and all employees start work at 9am and finish at 5pm with a 30 minute unpaid break for lunch. All employees except the manager are paid overtime at a rate of time plus one half for any hours worked in excess of this.

For the month of May 2015 there were 21 working days and the following results were recorded:

- The manager was present for every working day except for week commencing 11 May when he was away on annual leave for one week.
- The two supervisors worked every day and one of them worked until 8pm on three occasions in order to finish a special order for a customer.
- Eight assembly technicians worked every day and the other two worked every day except they both also took five days annual leave during the month. Three technicians also worked until 8pm on three occasions.
- The two cleaners worked for 21 days and did not work any overtime during the month.
- 480 wheelbarrows were produced.
- All overtime premium is to be treated as an overhead cost.

(b) Calculate the following, showing full workings:

- (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)**

(Total 25 marks)

Q3 The Crofton Machinery Company has four cost centres: Administration, Production, Sales and Marketing, and Distribution.

The following costs have been incurred by the Crofton Machinery Company for the month of May 2015:

Admin salaries	£6,500
Factory rent	£1,800
Heat and light for admin offices	£350
Factory cleaning materials	£160
Machine lubricant	£540
Delivery van running expenses	£1,400
Salesmen's salaries	£4,300
Stationery	£220
Factory equipment maintenance	£350
Telephone costs	£600

Stationery costs are shared equally between Administration and Sales and Marketing. Telephone costs are shared equally between Administration, Sales and Marketing and Distribution.

- (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)**
- (Total 25 marks)**

Q4 Motor components manufactured by Dolan Design are finished using a unique corrosion resistant paint that is manufactured by the company using a special process.

For the month of May 2015 the following cost information was recorded:

Material input	10,000 litres @ £1.50 per litre
Labour	£2,400
Overheads	£1,800

Output comprised 9,000 litres of finished paint and normal loss is expected to be 4% of input. Losses have no sale value.

- (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)**
(Total 25 marks)

Q5 The Elvedon Sports Company is looking to introduce a new range of all-terrain adventure bicycles and has compiled the following information:

- Each bicycle will sell for £150.00
- Material cost per bicycle will be £40.00
- Labour cost per bicycle will be £60.00

The company has also calculated that it will be necessary to set up a new production line for which the fixed costs will be £75,000 per annum.

The sales manager is confident that the company can sell 2,500 bicycles each year.

- (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)**
(Total 25 marks)

Q6 The Millennium Coffee Maker Company is looking to automate the production of one of its more popular models in order to reduce the cost per unit.

At present the full absorption cost of each unit comprises the following:

Material	£35.00
Labour	£75.00
Fixed Overheads	£15.00

Each year the company makes and sells 10,000 units of this model.

The company has calculated that it will need to invest £1,700,000 in new machinery to upgrade the production line and if it does this:

- The machinery is expected to last for five years after which time it will have a resale value of £200,000.
- The machinery will reduce the labour cost per unit to £30.00.
- The new machinery will incur an additional £50,000 per annum in maintenance costs.

The company's cost of capital is 10% for which the discount factors are:

Year	Factor
0	1.000
1	0.909
2	0.826
3	0.751
4	0.683
5	0.621

- (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)**

(Total 25 marks)

Q7 The managing director of Green's Clothing is keen to learn more about management accounting terminology.

(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) The standard cost card for a hand-stitched leather belt shows the following information:

Leather	0.5 square metres @ £10.00 per square metre
Labour	0.2 hours @ £12.00 per hour
Fixed overheads	0.2 hours @ £20.00 per hour

Draw up a standard cost card for a hand-stitched leather belt. **(6 marks)**

Additional information:

Budgeted production for May 2015 was 800 belts and the following actual results were recorded:

Belts produced	850
Leather used	440 square metres at a total cost of £4,300
Labour	150 hours at a total cost of £1,850
Fixed overhead expenditure	£3,000

- (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)**
- (Total 25 marks)**

Q8 Budgeted costs and revenues for sales of the 'Epsilon' games console for the month of May 2015 are as follows:

Sales	300 units @ £210.00 each
Material cost	£27,000
Labour cost	£15,000
Fixed overheads	£9,000

The sales manager has persuaded the managing director to allow him to reduce the selling price for one month to stimulate extra sales and as a result the following results are recorded for the month:

Sales	360 units @ £189.00 each
Material cost	£32,400
Labour cost	£18,720
Fixed overheads	£9,400

- (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)**

End of question paper