## Accounting

## ACCN4

## Unit 4 Further Aspects of Management Accounting

## Thursday 24 June $2010 \quad 1.30$ pm to 3.30 pm

For this paper you must have:

- a 12-page answer book.

You may use a calculator.

## Time allowed

- 2 hours


## Instructions

- Use black ink or black ball-point pen.
- Write the information required on the front of your answer book. The Examining Body for this paper is AQA. The Paper Reference is ACCN4.
- Answer all questions.
- All workings must be shown and clearly labelled; otherwise marks for method may be lost.
- Make and state any necessary assumptions.
- Do all rough work in your answer book. Cross through any work you do not want to be marked.


## Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 90 .

Four of these marks will be awarded for:

- using good English
- organising information clearly
- using specialist vocabulary where appropriate.

Answer all questions.

## Task 1

Total for this task: 12 marks

Norma Nails Ltd is a manufacturing company which produces bottles of nail polish.
The company policy is to transfer the bottles of polish from the manufacturing account to the income statement (trading account) at cost plus 20\%.

The following information is available for the inventory (stock) of finished goods:

|  | at 31 March 2009 | at 31 March 2010 |
| :--- | :---: | :---: |
|  | $£$ | $£$ |
| Inventory (stock) of finished goods | 12000 | 18000 |
| (at transfer value) |  |  |

## REQUIRED

| $\mathbf{0}$ | 1 | Calculate the provision for unrealised profit at 31 March 2009. |
| :--- | :--- | :--- |



| 0 | 3 | Describe the treatment of the unrealised profit in the financial statements [income |
| :--- | :--- | :--- | statement (trading and profit and loss account) and balance sheet], for the year ended 31 March 2010. Include any relevant calculations.


| 0 | 4 | Explain why it is necessary to adjust for unrealised profit in the financial statements. |
| :--- | :--- | :--- |

(4 marks)

One of the production machines of Joscha plc needs to be replaced.
A replacement machine will cost $£ 146000$, which is payable on purchase.
The current machine produces 5000 units a year. The replacement machine is expected to produce $25 \%$ fewer units in year 1 than the current machine, due to installation time. Output for each subsequent year will increase by $20 \%$ on the previous year's level of production.

The current production cost per unit is:

|  | $£$ |
| :--- | ---: |
| Materials (4 kilos at $£ 1.25$ per kilo) | 5.00 |
| Labour (5 hours at $£ 8$ per hour) | 40.00 |
|  | 45.00 |

The replacement machine is expected to be more efficient. Wastage will be reduced so that only 3.2 kilos of material will be needed per unit and labour hours will also be reduced by $20 \%$ per unit. There are no expected changes in the price paid per kilo of material or in the labour rate paid per hour.

## REQUIRED

| $\mathbf{0}$ | $\mathbf{5}$ Calculate the expected total production cost for each of the years 1 to 3 assuming the |
| :--- | :--- | :--- | replacement machine is purchased.

It is assumed that all units produced are sold.
The selling price is currently $£ 55$. The financial director of Joscha plc believes that the selling price will have to be decreased by $20 \%$ in year 3 for the company to remain competitive.

The cost of capital is $15 \%$.
The following is an extract from the net present value table for $£ 1$.

|  | $15 \%$ |
| :--- | :---: |
| Year 1 | 0.870 |
| Year 2 | 0.756 |
| Year 3 | 0.658 |
| Year 4 | 0.572 |

All revenues are received and all costs are paid at the end of each year.

## REQUIRED

| 0 | 6 | $C a l c u l a t e ~ t h e ~ n e t ~ p r e s e n t ~ v a l u e ~ o f ~ t h e ~ r e p l a c e m e n t ~ m a c h i n e . ~$ |
| :--- | :--- | :--- |

(13 marks)
(for quality of presentation: plus 1 mark)

Task 2 continues on the next page

Unfortunately, it has been discovered that the replacement machine will produce chemical waste. The production manager believes that he will be able to dispose of the waste into the local river at no cost.

## REQUIRED

| 0 | 7 | Assess whether the replacement machine should be purchased. Consider both financial |
| :--- | :--- | :--- | and non-financial factors.

(12 marks)
(for quality of written communication: plus 2 marks)

Azhara Ltd produces a range of products.
There are 2 production departments, assembly and finishing, and 1 service department, maintenance.

The following budgeted information is available for the departments for the year ending 31 October 2010.

|  | Assembly | Finishing | Maintenance |
| :--- | ---: | ---: | :---: |
| Overheads | $£ 120000$ | $£ 340000$ | $£ 80000$ |
| Direct labour hours | 36000 | 62000 | - |
| Direct machine hours | 48000 | 51000 | - |

The maintenance department overheads are apportioned to the production departments on the basis of $60 \%$ to the assembly department and $40 \%$ to the finishing department.

## REQUIRED

| 0 | 8 | Calculate the overhead absorption rate for each production department. State the bases |
| :--- | :--- | :--- | used and give a reason for each choice.

(12 marks)

The unit selling price of product $Z$ is calculated at full cost plus $25 \%$. Each unit has direct costs of $£ 32$ and requires 2 machine hours and 1.5 labour hours.

## REQUIRED

| 0 | 9 |
| :--- | :--- | Calculate the selling price of one unit of product $Z$.

It has been suggested to the financial director that he should base the selling price on the cost obtained through using Activity Based Costing (ABC).

## REQUIRED

| 1 | 0 | Explain two benefits of using ABC compared with using the current method to calculate |
| :--- | :--- | :--- | the selling price.

## Turn over for the next task

Brightene Homes Ltd builds bungalows.
A team of workmen are assigned to each bungalow. This includes 2 carpenters working 5 days each at $£ 20$ per hour to complete the roof.

Each carpenter is paid for an 8 hour day.
The company has recently been offered the contract to build a new development of 12 bungalows.

## REQUIRED

| 1 | 1 | Prepare a labour budget calculating the expected total number of hours needed and the |
| :--- | :--- | :--- | expected total cost of labour for the carpenters on the contract.

(4 marks)
(for quality of presentation: plus 1 mark)

The total variable cost of building one bungalow is $£ 42000$ and the fixed costs of the contract are $£ 680000$. The company hopes to break even at 10 bungalows.

## REQUIRED

| 1 | 2 | $C a l c u l a t e ~ t h e ~ s e l l i n g ~ p r i c e ~ o f ~ e a c h ~ b u n g a l o w ~ i n ~ o r d e r ~ t o ~ a c h i e v e ~ a ~ b r e a k-e v e n ~ p o i n t ~ o f ~$ |
| :--- | :--- | :--- | 10 bungalows.


| 1 | 3 | $C a l c u l a t e ~ t h e ~ e x p e c t e d ~ t o t a l ~ c o n t r i b u t i o n ~ a n d ~ p r o f i t ~ o n ~ t h e ~ c o n t r a c t ~ t o ~ b u i l d ~$ |
| :--- | :--- | :--- |
| 12 | bungalows. |  |

(2 marks)

The company accepted the contract to build 12 bungalows. At the end of the contract, the following information is available:

## £

Carpenters (1040 hours)
18720

## REQUIRED

| 1 | 4 | Calculate the labour rate and labour efficiency sub-variances for the carpenters. |
| :--- | :--- | :--- |


| 1 | $\mathbf{5}$ | Explain what information the variances provide for the management of |
| :--- | :--- | :--- | Brightene Homes Ltd.

## END OF QUESTIONS

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