Tuesday 28 June 2005 Morning Session

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In addition to this paper you will require:
    an answer book for Accounting.
You may use a calculator.
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## Time allowed: 1 hour 15 minutes

## Instructions

- Use blue or black ink or 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 ACC7.
- 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 the answer book. Cross through any work you do not want marked.


## Information

- The maximum mark for this paper is 105 . This includes up to 5 marks for the Quality of Written Communication.
- Mark allocations are shown in brackets.
- Question 5 is the synoptic question which assesses your understanding of the relationship between the different aspects of Accounting.
- You will be assessed on your ability to use an appropriate form and style of writing, to organise relevant information clearly and coherently, and to use specialist vocabulary, where appropriate. The degree of legibility of your handwriting and the level of accuracy of your spelling, punctuation and grammar will also be taken into account.

Answer all questions.

Nathan’s Nicknaks Ltd sells a single product at $£ 6$ per unit. The company’s expected sales for the year ended 30 April 2005 were 12000 units.

At the year end, the company had actually sold 14000 units for $£ 70000$.

## REQUIRED

(a) Calculate the sales price variance. State the formula used.
(b) Calculate the sales volume variance. State the formula used.
(c) Explain why each of these variances may have occurred.

Roberta uses one machine to manufacture her products. This machine was purchased six years ago for $£ 160000$. It has an expected useful economic life of ten years, and currently produces 6000 units per annum.

Although this machine is still in good working order, Roberta is considering replacing it with a more up-to-date machine at a cost of $£ 350000$. This new machine is expected to increase the annual production by $20 \%$ and will last ten years. Roberta will have to borrow to finance the purchase of this machine.

Each unit is sold for $£ 80$, and will cost $£ 60$ to manufacture.
The discount factors at $14 \%$ are:

| Year 1 | 0.877 |
| :--- | :--- |
| Year 2 | 0.769 |
| Year 3 | 0.675 |
| Year 4 | 0.592 |

## REQUIRED

(a) Calculate the net present value of the new machine.
(b) Advise Roberta whether she should purchase the new machine. Justify your recommendation.

CJ Lewison Ltd manufactures two products, Caz and Jaz.
The following information is available.

|  | Caz | Jaz |
| :--- | :--- | :--- |
| Direct materials | $3 \mathrm{~kg} @ £ 6$ per kg | $2 \mathrm{~kg} @ £ 6$ per kg |
| Direct labour | $2 \mathrm{hrs} @ £ 8$ per hour | $3 \mathrm{hrs} @ £ 8$ per hour |

The factory operates at full capacity, using 42000 labour hours.
Demand during the year is expected to be:
Caz
12000 units @ $£ 42$ per unit
Jaz 8000 units @ $£ 45$ per unit.

## REQUIRED

(a) Calculate the contribution per unit per labour hour.
(b) Calculate the optimum production plan that CJ Lewison Ltd should implement to maximise annual profit.

In order to meet total demand for its products, the company is considering buying-in from other suppliers. The costs of buying-in the units are:

$$
\begin{array}{ll}
\text { Caz } & £ 35 \text { per unit }+10 \% \text { delivery charge } \\
\text { Jaz } & £ 38 \text { per unit }+15 \% \text { delivery charge. }
\end{array}
$$

## REQUIRED

(c) Explain whether CJ Lewison Ltd should buy-in the shortfall in expected demand.

Colliers plc manufactures cars. The production manager believes that if an alternative component is used, a saving of $£ 3$ could be made. The company produces 40000 cars each year. Unfortunately, the use of the cheaper component will mean an increase in fuel consumption of $15 \%$ and result in more harmful exhaust fumes.

## REQUIRED

Write a report to Colliers plc, explaining whether they should use the cheaper component. Consider the effect on the environment as well as financial factors.

Sam Grieves has been running his own barber's shop for many years.
The price of a haircut is $£ 8$. Sam employs one assistant at $£ 8$ per hour. Sam and his assistant each complete three haircuts per hour, five hours a day and six days a week.

The fixed overheads are $£ 880$ per week.
Sam needs to withdraw $£ 400$ per week for his own living expenses.

## REQUIRED

(a) Calculate the maximum number of haircuts that are completed at the barber's shop per week.
(b) Calculate the shortfall between the number of haircuts that are completed and the number of haircuts necessary per week to cover Sam's business and living expenses.
(7 marks)

Sam decides to raise the price of a haircut for an adult to $£ 10$, but reduce the price for children under twelve years of age to $£ 6$. He knows that $75 \%$ of his customers are adults.

During the next four weeks, his assistant wishes to go abroad for two weeks to see his family. This will be paid leave. Sam will not have an assistant for weeks 2 and 3, but he will complete three extra haircuts per day.

## REQUIRED

(c) Prepare a forecast profit and loss account for the next four weeks.
(11 marks)

Sam currently has a loan of $£ 3000$. At the start of week 1 , Sam has $£ 500$ in the bank and wishes to use any surplus cash to pay off this loan at the end of week 4 , without going overdrawn. He realises that for weeks 2 and 3 , his income will be reduced, and so he will reduce his own living expenses to $£ 350$ for each of these two weeks.

## REQUIRED

(d) Prepare a cash budget for Sam for each of the next four weeks.
(13 marks)
(e) Calculate the maximum amount of the loan that can be repaid at the end of the four-week period.
(2 marks)
(f) Explain the difference between cash and profit. (5 marks)

## END OF QUESTIONS

THERE ARE NO QUESTIONS PRINTED ON THIS PAGE

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