## ACCOUNTING

## ACC7

## Unit 7 Further Aspects of Accounting for Management and Decision-making

## Friday 13 June 20081.30 pm to 2.45 pm

For this paper you must have:

- an 8-page answer book.

You may use a calculator.
Time allowed: 1 hour 15 minutes

## 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 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 to be marked.


## Information

- The maximum mark for this paper is 105 .

Five of these marks will be awarded for using good English, organising information clearly and using specialist vocabulary where appropriate.

- The marks for questions are shown in brackets.
- Question 3 is the synoptic question which assesses your understanding of the relationship between the different aspects of Accounting.

One of the assembly machines at Roberts Ltd needs to be replaced.
A replacement machine will cost $£ 200000$, which is payable on purchase.
The replacement machine is expected to last 4 years, but will need a complete maintenance check in year 3 at a cost of $£ 50000$.

The existing machine assembles 4000 units a year. The number of units assembled by the replacement machine is expected to be $25 \%$ lower in year 1 than the existing machine due to the time lost during installation and testing. In year 2 it is expected that 4500 units will be assembled and this will increase by $20 \%$ each year compared to the previous year.

The existing machine produces units at a cost of $£ 26$ each, whereas the replacement machine will produce units at a cost of $£ 24$ each. The selling price is currently $£ 42$ per unit but with the improved quality provided by the replacement machine this will increase to $£ 45$ per unit. From year 3, it is expected that the cost of manufacture will increase by $25 \%$ each year and the selling price will increase by $30 \%$ each year compared to the previous year.

The cost of capital is $14 \%$.
The following is an extract from the present value table for $£ 1$.

|  | $\mathbf{1 4 \%}$ |
| :--- | ---: |
| Year 1 | 0.877 |
| Year 2 | 0.769 |
| Year 3 | 0.675 |
| Year 4 | 0.592 |

It is assumed that all units produced are sold.

## REQUIRED

(a) Calculate the expected net cash flows for each year, using the replacement machine. (12 marks)
(b) Calculate the payback period for the replacement machine.
(c) Calculate the net present value for the replacement machine using the expected net cash flows. Assume that revenues are received and costs are paid at the end of each year.
(d) Compare the two methods of capital investment appraisal.
(4 marks)
(e) Prepare comparative budgeted trading accounts for year 1 for:
(i) the existing machine and
(ii) the replacement machine.

## Total for this question: 16 marks

Spencer Ltd manufactures a single product, the Spenz.
The following information relates to the month of May 2008.

Budgeted
Production
Direct material
Direct labour

2400 units
5 kilos at $£ 5.50$ per kilo per unit
6 hours at $£ 4.50$ per hour per unit

## Actual

2200 units
£66 000 (13 200 kilos)
£70 400 (17 600 hours)

The budgeted profit for May 2008 was $£ 26000$.

## REQUIRED

(a) Calculate the material price and material usage sub-variances.
(4 marks)
(b) Calculate the labour rate and labour efficiency sub-variances. (4 marks)
(c) Calculate the actual profit for Spencer Ltd for the month ended May 2008.
(4 marks)
(d) Explain two possible ways in which the variances will affect the current workforce.
(4 marks)

## Turn over for the next question

Jameson Ltd manufactures one product. The following information relates to the two production and two service departments for one four-week period.

|  | Production departments |  | Service departments |  |
| :--- | ---: | :---: | :---: | :---: |
| Machining | Assembly | Maintenance | Canteen |  |
| Overheads | $£ 143500$ | $£ 154700$ | $£ 165800$ | $£ 176900$ |
| Direct machine hours | 18845 | 14050 | - | - |
| Direct labour hours | 6065 | 20350 | - | - |

The service departments' overheads are apportioned to the production departments on the following basis:

|  | Machining | Assembly | Canteen |
| :--- | :---: | :---: | :---: |
| Maintenance | $60 \%$ | $30 \%$ | $10 \%$ |
| Canteen | $40 \%$ | $60 \%$ | - |

## REQUIRED

(a) Prepare an overhead apportionment schedule apportioning the service departments' overheads to the appropriate departments for one period.
(8 marks)
(b) Calculate the overhead absorption rates for each production department. State the bases used and give a reason for each choice.

The manager of Jameson Ltd calculates selling price per unit based on full cost plus a $25 \%$ mark-up.

The costs per unit are:
materials: 3 metres at $£ 4$ per metre;
labour: 7 hours at $£ 8$ per hour.
Each unit takes 3 hours in the machining department and 4 hours in the assembly department. All overheads are fixed.

## REQUIRED

(c) Calculate the full cost per unit.
(d) Calculate the selling price per unit.
(e) Calculate the number of units Jameson Ltd has to produce and sell in each period to break even.
(f) Explain two limitations of break-even analysis.

A new overseas customer has placed an order for 2500 units at $£ 100$ each. Additional delivery costs of $£ 7500$ will be paid by Jameson Ltd. The new customer has not traded with any UK company before but has requested 2 months' credit terms.

## REQUIRED

(g) Write a report to the directors of Jameson Ltd recommending whether or not the new order should be accepted. Consider both financial and non-financial factors. Justify your decision.
(Report format: 2 marks)
(Report: 10 marks)

The business operates over 13 periods a year. Each period consists of four weeks with five working days in each week.

The sales for the next four periods are expected to be:

|  | Period 1 | Period 2 | Period 3 | Period 4 |
| :---: | :---: | :---: | :---: | :---: |
| Units | 11500 | 12000 | 14000 | 12500 |

Assume that sales accrue evenly within each period.
The stock at the start of period 1 was 4600 units. It is the policy to maintain the closing stock of units at a level which is sufficient to cover 8 days of sales for the next period. However, storage constraints restrict stock to a maximum of 5000 units.

## REQUIRED

(h) Prepare the production budget in units for each period for periods 1-3.
(i) Calculate the total direct production cost for periods 1-3.

## END OF QUESTIONS

There are no questions printed on this page

There are no questions printed on this page

There are no questions printed on this page

