WEDNESDAY, $3^{\text {RD }}$ MAY 2000. TIME: $9.30 \mathrm{am}-12.30 \mathrm{pm}$

Please attempt ONE question from Section A and THREE questions from Section B.
(If more than the specified number of questions are attempted, delete those you do not wish to have marked. Otherwise the Examiner will mark the FIRST four questions.)

All questions carry equal marks.
Do NOT repeat question in answer, but show clearly the number of the question attempted on the appropriate page of the Answer Book.

## SECTION A <br> (Answer ONE question only)

1. Accountants are a necessary evil to all businesses. Do you agree with this statement?
Why?
2. Write notes on:
(a) Debentures
(b) Term Loans
(c) Venture Capital

## SECTION B

(Answer THREE questions only)
3. Elmoe Ltd. is a company wholesaling in the motor vehicle spare parts market. One of the services offered by the motor industry trade association is an inter-firm comparison. The summarised results of Elmoe Ltd. for the two years ended 31 ${ }^{\text {st }}$ December 1998 and 1999 are given below together with extracts from the most recent inter-firm comparison.

| Trading and Profit and Loss Accounts for the years ended 31 ${ }^{\text {st }}$ December |  |  |
| :---: | :---: | :---: |
|  | 1998 | 1999 |
|  | £000 | £000 |
| Sales | 2,352 | 2,808 |
| Cost of Sales | 1,440 | 1,800 |
| Gross Profit | 912 | 1,008 |
| Less: |  |  |
| Employee costs | 264 | 266 |
| Other expenses | 574 | $\underline{674}$ |
| Net Profit | $\underline{\underline{74}}$ | $\underline{\underline{68}}$ |
|  | 1998 | 1999 |
|  | £000 | £000 |
| Fixed Assets: |  |  |
| Buildings | 480 | 451 |
| Fixtures and Fittings | 192 | 221 |
| Vehicles | 120 | $\underline{96}$ |
|  | $\underline{\underline{792}}$ | $\underline{\underline{768}}$ |
| Current Assets: |  |  |
| Stocks | 204 | 288 |
| Debtors | $\underline{216}$ | $\underline{209}$ |
|  | $\underline{\underline{420}}$ | 497 |
| Current Liabilities: |  |  |
| Creditors | 168 | 216 |
| Bank Overdraft | $\underline{218}$ | $\underline{276}$ |
|  | 386 | 492 |
| Net Current Assets | 34 | 5 |
| Total Assets less current liabilities | $\underline{\underline{826}}$ | $\underline{\underline{773}}$ |
| Financed by: |  |  |
| Ordinary Share Capital | 240 | 240 |
| Profit \& Loss Account | 226 | 294 |
| Long Term Liabilities: |  |  |
| 8\% Bank Loan | $\underline{360}$ | 239 |
|  | $\underline{\underline{826}}$ | $\underline{\underline{773}}$ |

The inter-firm comparison reveals:

| Gross profit \% | $35 \%$ |
| :--- | :--- |
| Net profit \% | $2.8 \%$ |
| Employee costs to sales | $8 \%$ |
| Current ratio | 1.6 |
| Acid Test ratio | 1.1 |
| Debtor days | 70 days |
| Creditor days | 60 days |
| Stock Turnover | 65 days |

## Required:

(a) Calculate relevant ratios for Elmoe for 1998 and 1999 to facilitate an evaluation in relation to the inter-firm statistics.
(16 marks)
(b) Comment on Elmoe's performance in each of the years compared with the industry as shown in the inter-firm comparison.
(9 marks)
P.T.O.
4. Cool Consumers manufactures a range of four refrigerated units for retail outlets. Details are given as follows:

## Unit Selling Prices Unit Variable Costs <br> £ <br> 200 <br> £ <br> 250 140 <br> 290 <br> 190 <br> 350 <br> 189 <br> 245

CC 101
CC 102
CC 103
CC 104
The annual demand for each product is estimated below:

## Estimated Demand

CC 101
90,000
CC 102
120,000
CC 103
40,000
CC 104
50,000
The company has an estimated production capacity of 375,000 units and, therefore, is currently operating below full capacity. An enquiry has been received from a supermarket chain interested in buying 60,000 CC104's. The finance director informs you that this order will increase fixed costs from $£ 15$ million to $£ 16.2$ million and that minor design alterations will increase variable costs by $£ 10$ per unit.

## Required:

(a) Calculate estimated profit before the supermarket chain enquiry.
(5 marks)
(b) Calculate $\mathrm{C} / \mathrm{S}$ ratios for each of the four products.
(8 marks)
(c) Recommend a selling price for the special order of CC104's which will earn an increase in profit of $£ 5$ million.
(d) At what selling price per unit will Cool Consumers breakeven on the special order?(5 marks)
5. The ABC Co. Ltd. is a light engineering company in business for 20 years. Following a complete review of all equipment in line with current replacement policy, the company wishes to purchase 3 new machines details of which are given below:

## Machine A Machine B Machine C

Initial Cost
£80,000
$\underline{\underline{£ 58,000}}$
£60,000
Net Cash Inflows

| $\boldsymbol{£}$ | $\mathbf{£}$ | $\mathbf{£}$ |
| ---: | ---: | ---: |
| 10,000 | 48,000 | 2,000 |
| 16,000 | 12,000 | 3,000 |
| 24,000 | 2,000 | 4,000 |
| 36,000 | 2,000 | 5,000 |
| 32,000 | 2,000 | 90,000 |

$\begin{array}{llll}\text { Residual Value } & 10,000 & 7,000 & 8,000\end{array}$
All machines will be disposed of at the end of year 5. The company has a cost of capital of $10 \%$.

## Required:

(a) For each Machine:
(i) Calculate payback
(6 marks)
(ii) NPV (Net Present Value)
(12 marks)
(b) For Machine A, calculate the IRR (Internal Rate of Return).
(7 marks)

## Discount Factors

## Present Value of £1

| Year | $5 \%$ | $10 \%$ | $15 \%$ | $20 \%$ |
| :---: | :---: | :---: | :---: | :---: |
| 1 | .952 | .909 | .870 | .833 |
| 2 | .907 | .826 | .756 | .694 |
| 3 | .864 | .751 | .658 | .579 |
| 4 | .822 | .683 | .572 | .482 |
| 5 | .784 | .621 | .497 | .402 |
| 6 | .746 | .564 | .432 | .335 |

P.T.O.
6. Glam Gardens is a manufacturer of garden furniture. One of its products, a bench, is budgeted for production and sales of 5,000 units per month. The standard cost card for one bench is detailed below:

## $£$

## Direct Materials:

20 metres of P1098@ £3/metre 60
Fixtures and Fittings 3
Direct Labour:
5 hours @ £5 per hour 25
Variable Production Overhead:
5 hours @ $£ 2$ per hour
10
$\underline{98}$
Budgeted Selling Price per unit £150
During the previous month, 4,800 benches were produced and sold generating revenue of $£ 768,000$. The actual costs incurred were as follows:

## $£$

## Direct Materials:

P1098-100,000 metres 310,000
Fixtures and Fittings 13,920
Direct Labour:
22,500 hours 118,125
Variable Production Overhead
56,250
498,295

## Required:

(a) Calculate all relevant sales and cost variances.
(20 marks)
(b) Give two possible reasons for the sales price variance. (5 marks)
7. Dotte Comme Ltd. is a small company in the computer consumables market. Since start up, the manager has managed all aspects of the business including cash. She has now approached you for advice because she had a bank overdraft of $£ 20,400$ at the end of July. You have established the following:
(a) The sales to $31^{\text {st }}$ December are:

## Units

June actual 30,000
July actual 35,000

## Forecast:

| August | 40,000 |
| :--- | :--- |
| September | 45,000 |
| October | 50,000 |
| November | 55,000 |
| December | 60,000 |

(b) The selling price is $£ 25$ per unit.
(c) The standard variable cost of production per unit is $£ 17.5$ consisting of:
Direct Materials £10

Direct Labour 5
Variable Production Overhead 2.5
(d) $60 \%$ of debtors are expected to pay in the month following sale and are allowed a prompt payment discount of 5\%. The balance will pay one month later.
(e) Production will take place one month prior to sale. All raw materials will be purchased in the month before production.
(f) Raw materials will be paid for in the month following purchase.
(g) Wages are paid one week in arrears and, therefore, one quarter of the wages of each month will be paid for in the following month.
(h) Variable production overheads are paid two months following month of production.
(i) New delivery vehicles will be purchased in September at a cost of $£ 90,000$. These will be paid for in October.
P.T.O.
(j) Fixed costs are $£ 22,000$ per month. This includes a monthly depreciation charge of $£ 2,000$. Fixed costs are paid one month in arrears.
(k) Taxation estimated at $£ 40,000$ will be paid for in September.

## Required:

(a) Prepare a cash budget for three months August - October.
(20 marks)
(b) Make recommendations based on the information prepared in (a).
(5 marks)

