## National

## X800/76/11

Duration - 2 hours 30 minutes

Total marks - 120
SECTION 1 - 80 marks
Attempt ALL questions.

## SECTION 2 - 40 marks

Attempt ALL questions.
You may use a calculator.
You must show your working fully and label it clearly. You will receive no marks for any incorrect figures not supported by working.

Write your answers clearly in the answer booklet provided. In the answer booklet you must clearly identify the question number you are attempting.

Use blue or black ink.
Before leaving the examination room you must give your answer booklet to the Invigilator; if you do not, you may lose all the marks for this paper.

## SECTION 1 - 80 marks

Attempt ALL questions

1. Donnelly and Scott are in partnership, sharing profit and losses in the same ratio as their equity invested.
Their Equity and Current Account balances on 31 December Year 1 were
Equity Accounts Current Accounts

|  | $£$ | $£$ |
| :--- | ---: | ---: |
| Donnelly | 75,000 | $6,200 \mathrm{Cr}$ |
| Scott | 125,000 | $4,800 \mathrm{Dr}$ |

On 1 January Year 2, Donnelly and Scott agree to admit Cahill as a new partner with the following conditions.

- Cahill will introduce $£ 80,000$ as his new equity
- Goodwill is valued at $£ 20,000$
- Before the admission of Cahill, the assets of Donnelly and Scott are to be revalued as follows

|  | Old Value | New Value |
| :--- | ---: | ---: |
|  | $£$ | $£$ |
| Property | 80,000 | 130,000 |
| Vehicles | 40,000 | 30,000 |
| Inventory | 8,000 | 12,000 |
| Trade Receivables | 9,000 | 6,000 |

- On revaluation, the doubtful debt provision will increase by $£ 1,000$
- Professional revaluation expenses are $£ 4,000$
- As a Goodwill Account is not to be kept, Goodwill is to be written off against the Equity Accounts of the new partnership
- $50 \%$ of the original partners' Current Accounts are to be transferred to their Equity Accounts
- Cahill is to receive a $20 \%$ share of any future profits, with Donnelly and Scott continuing to share as before


## Calculate on 1 January Year 2

(a) the profit or loss on revaluation 4
(b) the share of profit or loss on revaluation for each partner 2
(c) the new profit sharing ratio 2
(d) the new equity balances of each partner. 5

1. (continued)

During Year 2 the partnership earned a Profit for the Year of $£ 80,000$. The new partnership agreement states that

- interest on equity is payable annually at $10 \%$
- drawings taken (during Year 2): Donnelly $£ 5,000$, Scott $£ 8,000$ and Cahill $£ 6,000$
- interest on drawings is charged at 5\% per annum
- an annual salary of $£ 2,000$ is paid to Donnelly.
(e) Prepare the Income Statement for the year ended 31 December Year 2, starting from the Profit for the Year.
(f) Prepare the new Current Accounts for the 3 partners at the end of Year 2.

| Property (at cost) | $£ 330,000$ |
| :--- | ---: |
| Inventory | $£ 35,700$ |
| Trade Payables | $£ 16,000$ |
| Trade Receivables | $£ 7,500$ |
| Vehicles (at cost) | $£ 30,000$ |
| Electricity Receivable | $£ 3,500$ |
| Investments | $£ 2,050$ |
| Wages Payable | $£ 20,000$ |
| Equipment (at cost) | $£ 12,500(\mathrm{Cr})$ |
| Cash and Cash Equivalents |  |

- The new property was partly funded by a $£ 100,000$ mortgage
- The property was professionally revalued on 31 December Year 2 at $£ 350,000$
- Depreciation was - Vehicles $£ 5,000$ and Equipment $10 \%$ on cost
- Provision for Doubtful Debts is to be $10 \%$ of Trade Receivables
(g) Using information above and relevant information from (d)-(f) prepare the Statement of Financial Position for Year 2 of the new partnership.
(h) Outline 2 reasons for the admission of a new partner.

2. PART A

The Designer Cake Company Ltd manufactures celebration cakes in three separate processes: mixing, baking and packaging. The company estimates that the number of cakes that will be sold during July to December Year 2 will be as follows.

|  | July | August | September | October | November | December |
| :--- | :---: | ---: | ---: | ---: | ---: | ---: |
| Sales | 2,500 | 2,800 | 3,400 | 6,200 | 5,000 | 5,100 |

The closing inventory at the end of each month will be $20 \%$ of the estimated sales for the following month.
(a) Prepare the forecast production budget for the 5 month period July to November.
(b) Describe sources of finance only available to limited companies.

The following information relates to the baking process for the month of September.
Opening Work-in-Progress $\quad 500 \mathrm{~kg} @ £ 1 \cdot 20$ per kg

| Materials | $1,000 \mathrm{~kg}$ at $£ 0.50$ per kg |
| :--- | :--- |
| Labour | 800 hours @ $£ 6.50$ per hour |
| Variable Overheads | $£ 1.00$ per labour hour |
| Fixed Overheads | $20 \%$ of labour cost |
| Good Output | 900 kg |
| Closing Work-in-Progress | 425 kg valued at $£ 2,125$ |

Normal Loss is $5 \%$ of total input quantity. All losses are sold at 20p per kilogram.
(c) (i) Prepare the Baking Process Account for the month of September.
(ii) Prepare the Abnormal Loss Account for the month of September.
(d) Distinguish between margin and mark-up.
2. PART B

L\&N Transport operates a fleet of 10 coaches. Each coach can hold 45 passengers and on average each coach is $80 \%$ full when on hire. Each coach travels an average of 500 miles per week over the course of a 52 -week year.

The estimated running costs for next year are shown below.

1. Each coach cost $£ 75,000$ to purchase. Each has an expected life of 7 years, at which point they will be traded in at an estimated value of $£ 5,000$.
2. Each coach has one regular driver who is permitted by regulations to work a total of 55 hours per week. This total includes 15 hours of overtime 10 hours at the weekend (paid at double time) and 5 hours at time and a half. Basic pay is $£ 15$ per hour. Each driver receives 4 weeks holiday per annum, paid at the basic rate.
3. Each coach is used for an average of 10 hours per day, 7 days per week, for 52 weeks of the year. Relief drivers make up the difference between the total annual hours of the regular drivers and the total operating hours of the coaches. Relief drivers are paid a flat rate of $£ 10$ per hour.
4. Each coach uses 1 litre of fuel for every 13 miles travelled. Fuel costs $£ 1 \cdot 35$ per litre.
5. Additional Costs
Office and Admin $£ 3,000$ per month
6. Annual Costs

| Insurance | $£ 5,225$ per coach |
| :--- | :--- |
| Maintenance and Repairs | $£ 59,700$ for the fleet |
| Licensing Costs | $£ 795$ per coach |

(a) Prepare a statement to show the annual cost of operating the fleet of coaches.

L\&N Transport charge 20p per passenger mile.
(b) Calculate
(i) the number of passenger miles per annum, based on expected occupancy
(ii) the estimated profit/loss for the year.

## SECTION 2 - 40 marks

## Attempt ALL questions

## 3. PART A

Clarke Construction manufactures lighting rigs. The following are the receipts and issues of Component KFC01.

The opening inventory at 1 September Year 3 is 2,500 units @ $£ 6 \cdot 00$ per unit.

| Date | Transaction | Units | Price |
| :---: | :--- | ---: | ---: |
| 7 September | Purchase | 1,500 units | $£ 6 \cdot 40$ |
| 12 September | Issue to Job 307 | 1,000 units |  |
| 15 September | Purchase | 2,000 units | $£ 6 \cdot 95$ |
| 17 September | Returns (purchased 15 September) | 200 units |  |
| 24 September | Issue to Job 310 | 1,200 units |  |

Prepare the Inventory Record Card for Component KFC01, using the weighted average (AVCO) method, for the month of September Year 3.

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## Formulae Sheet

Equity Gearing Ratio<br>(Preference Shares + Long-term Liabilities): Ordinary Shares<br>Dividend Yield<br>Ordinary Dividend per share<br>Market Price per share<br>Dividend Cover<br>(Profit for the Year after Tax — Preference Share Dividend)<br>Ordinary Share Dividend<br>\section*{Earnings Per Share}<br>(Profit for the Year after Tax — Preference Share Dividend)<br>Number of Ordinary Shares<br>\section*{Price/Earnings Ratio}<br>Market Price per share<br>Earnings per share<br>Interest Cover<br>Profit for the Year before Interest and Tax<br>Interest

3. PART B

Andrews plc and Bhuvan plc have the following equity structures.

|  | Andrews plc | Bhuvan plc |
| :--- | ---: | ---: |
|  | $£$ | $£$ |
| Authorised Share Equity |  |  |
| Ordinary shares of $£ 0 \cdot 50$ each | $5,500,000$ | $8,000,000$ |
| 8\% Preference shares of $£ 1$ each | $3,500,000$ | $5,000,000$ |
|  |  |  |
| Issued Share Equity |  |  |
| Ordinary shares of $£ 0 \cdot 50$ each | $2,750,000$ | $2,000,000$ |
| 8\% Preference shares of $£ 1$ each | 750,000 | $2,500,000$ |
|  |  |  |
| Long-term Borrowing |  |  |
| $5 \%$ Debentures | $2,000,000$ | $3,000,000$ |

(a) Calculate the equity gearing ratio for both companies.
(b) (i) Calculate the updated equity gearing ratio if Andrews plc issues the remainder of the preference shares.
(ii) Explain the possible impact on the return to ordinary shareholders of this decision.

At 30 April Year 3 Bhuvan plc had

1. earned a profit for the year (before finance cost and tax) of $£ 1,750,000$
2. estimated corporation tax at the rate of $25 \%$
3. retained $60 \%$ of their profit within the company.
(c) Calculate (correct to 2 decimal places) the
(i) total profit available for distribution to the ordinary shareholders
(ii) total dividend to be paid to the ordinary shareholders
(iii) total percentage dividend to be paid to the ordinary shareholders
(iv) ordinary dividend per share
(v) earnings per share.

The price/earnings ratio of Bhuvan plc at 30 April Year 3 was $7 \cdot 4$ times.
(d) Calculate (correct to 2 decimal places) the
(i) market price of the equity shares at that time
(ii) dividend yield.
4. Attica Enterprises plc has equity available for investment in one of the following projects. The following information has been received from the company's project consultants.

|  | Project 1 | Project 2 |
| :--- | ---: | ---: |
|  |  |  |
| Initial Investment | $£ 305,000$ | $£ 220,000$ |
| Residual Value | $£ 80,000$ | $£ 100,000$ |
| Project Life | 5 years | 5 years |
|  |  |  |
| Estimated Net Cash Flow (excluding initial investment) |  |  |
|  |  |  |
| Year 1 | $£ 132,000$ | $£ 150,000$ |
| Year 2 | $£ 104,000$ | $£ 60,000$ |
| Year 3 | $£ 82,000$ | $£ 40,000$ |
| Year 4 | $£ 71,750$ | $£ 36,000$ |
| Year 5 | $£ 64,000$ | $£ 32,000$ |

(a) (i) Calculate the profit earned in each year for each project.
(ii) Calculate the results of applying the following methods of investment appraisal to the projects.

- Accounting Rate of Return (based on average profits earned on the initial investment)
- Payback (to the nearest day)
(iii) Advise Attica Enterprises plc as to the most attractive investment proposal. Justify your answer.
(b) Describe 2 advantages and 1 disadvantage of using the Accounting Rate of Return method as a means of investment appraisal.


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