## X209/13/01

## NATIONAL <br> QUALIFICATIONS 2013

THURSDAY, 9 MAY
$1.00 \mathrm{PM}-4.00 \mathrm{PM}$

ACCOUNTING ADVANCED HIGHER

Candidates should attempt six questions in total, as follows.

## Section A

## Question 1

and Question 2 or 3
and Question 4 or 5

## Section B

Question 6
and Question 7 or 8
and Question 9 or 10
Answers must be in ink. Answers in pencil will not be accepted, though incidental working may be in pencil.
All working should be shown fully and clearly labelled. Any incorrect figure not supported by adequate working will receive no marks. Candidates using calculators should pay particular heed.

Begin your answer to each question on a fresh page.

## SECTION A

## You should attempt 3 questions from this section.

## Question 1, AND Question 2 OR 3, AND Question 4 OR 5.

1. William Ferguson started manufacturing and selling solar panels on 1 January Year 1. He provides you with the following information for the financial year ended 31 December Year 1.

|  | $£$ |
| :--- | ---: |
| Sales | 268,000 |
| Cost of Goods Sold | 93,800 |
| Advertising | 9,000 |
| General expenses | 27,000 |
| Wages | 108,000 |
| Stock | 30,800 |
| Debtors | 24,500 |
| Creditors | 13,500 |

His business had the following fixed assets which were depreciated as follows:

| £ |  |  |
| :---: | :---: | :---: |
| Machinery (at cost 1 January Year 1) | 100,000 | $10 \%$ per annum diminishing balance |
| Vehicles (at cost 1 January Year 1) | 48,000 | $20 \%$ per annum on cost |

Ferguson informs you that:
In Year 2 profits were earned and expenses incurred at the same rate as in Year 1 with the exception of a $5 \%$ increase in wages at the start of Year 2.
On 30 June Year 2 his business was completely destroyed by fire and he was unable to resume trading until 1 January Year 3.
He provides you with the following analysis of his bank account on 30 June Year 2.

|  | $\npreceq$ |
| :--- | ---: |
| Opening Balance | $1,500 \mathrm{Cr}$ |
| Received from customers | 20,200 |
| Paid to suppliers | 78,600 |
| Wages paid | 47,250 |
| Advertising | 5,250 |
| General expenses | 11,250 |
| Refunds of overcharges to customers | 3,200 |
| Drawings | 12,000 |

Balances of Debtors and Creditors on that date were $£ 23,200$ and $£ 16,300$ respectively.

## 1. (continued)

(a) Calculate:
(i) Gross Profit Percentage for Year 1;
(ii) Sales for 6 months ended 30 June Year 2;
(iii) Purchases for 6 months ended 30 June Year 2.
(b) Prepare the Trading and Profit and Loss Account for 6 months ended 30 June Year 2 and a Balance Sheet at that date.

Ferguson's business insurance covers the loss of assets and the loss of profits for up to one year during any period he is unable to trade.
(c) Calculate the total value of the insurance claim Ferguson will make.

## 2. PART A

Anderson PLC and Watson PLC provide you with the following financial information for the year ended 31 December Year 3.

|  | Anderson PLC | Watson PLC |
| :--- | ---: | ---: |
| $£ 000 \mathrm{~s}$ | $£ 000 \mathrm{~s}$ |  |
| Sales | 480 | 400 |
| Cost of goods sold | 338 | 288 |
| Expenses (excluding interest) | 72 | 76 |
| Interest charges on loan and overdraft | 6 | 4 |
| Profit after interest | 66 | 32 |
| Fixed Assets | 240 | 200 |
| Stock | 56 | 48 |
| Debtors | 40 | 40 |
| Bank | 64 Dr | 32 Cr |
| Mortgage repayable Year 16 | 42 |  |
| Creditors | 28 | 96 |
| Ordinary Shares of 50p each | 200 | 100 |
| Share Premium | 30 | 20 |
| Profit and Loss Account balance | 100 | 40 |

All transactions are on a credit basis. Stocks, Debtors and Creditors have remained constant throughout the year and both companies charge similar selling prices.

The directors of Anderson PLC are convinced that their company:
1 obtains more favourable purchase prices from suppliers;
2 is more efficient at controlling expenses;
3 has better credit control;
4 has more rigorous stock control;
5 makes better use of their fixed assets.

Discuss whether Anderson PLC's comments are justified. Your comments should be supported by appropriate workings.

## 2. (continued)

## PART B

You work for a firm of financial advisors and have been asked to analyse the investment performances of the following 2 companies.

| Net profit after interest and tax | $£ 150,000$ | $£ 350,000$ |
| :--- | ---: | ---: |
| Ordinary Shares of $£ 1$ each | $£ 200,000$ | $£ 1,000,000$ |
| $5 \%$ Preference Shares | $£ 250,000$ | Nil |
| 8\% Debentures | Nil | $£ 500,000$ |
| Ordinary Shares market price | $£ 1 \cdot 75$ | $£ 1 \cdot 50$ |
| Ordinary dividend per share | 10 p | 8 p |

(a) You are required to calculate for each company:
(i) Dividend yield;
(ii) Dividend cover;
(iii) Earnings per share;
(iv) Price/earnings ratio.

## Answers should be given to 2 decimal places.

(b) (i) By analysis of each of the ratios calculated above state the advice you
would offer to a potential investor.
(ii) Calculate the Capital Gearing Ratio for each company.
(iii) Explain which company would be the better investment in periods of high profit.
3. Merchant plc has provided the following data for the year ended 31 December Year 2.

## Trial Balance as at 31 December Year 2.

|  | $\begin{array}{r} \mathrm{Dr} \\ £ 000 \mathrm{~s} \end{array}$ | $\begin{array}{r} \mathrm{Cr} \\ £ 000 \mathrm{~s} \end{array}$ |
| :---: | :---: | :---: |
| Sales |  | 2,400 |
| Purchases of finished goods | 500 |  |
| Wages and salaries | 1,000 |  |
| Stock on 1 January Year 2 | 250 |  |
| General expenses | 420 |  |
| Debenture interest paid | 20 |  |
| Discounts (Net) | 10 |  |
| Carriage inwards | 10 |  |
| Directors' fees | 65 |  |
| Debtors and creditors | 450 | 80 |
| Bank | 720 |  |
| Land and warehouses at cost | 2,000 |  |
| Equipment at cost | 1,000 |  |
| Vehicles at cost | 600 |  |
| Provisions for depreciation: |  |  |
| Equipment |  | 200 |
| Vehicles |  | 90 |
| Interest received |  | 25 |
| VAT |  | 60 |
| 10\% Debentures (Years 4-10) |  | 400 |
| Ordinary Shares of 50p each (fully paid) |  | 2,500 |
| 8\% £1 Preference Shares (fully paid) |  | 1,000 |
| Share Premium |  | 100 |
| Investments at cost (Market Value £70,000) | 60 |  |
| Profit and Loss Account balance at 31 December Year 2 |  | 250 |
|  | 7,105 | 7,105 |

In addition:
1 Stocks of Finished Goods at 31 December Year 3 - £188,000.
2 Auditors' Fees unpaid - $£ 15,000$.
3 Prepaid General Expenses amounted to $£ 5,000$.
4 Allocate expenses as follows:

|  | Cost of Sales | Distribution | Administration |
| :--- | ---: | ---: | ---: |
| Wages and salaries | $30 \%$ | $40 \%$ | $30 \%$ |
| General expenses | Nil | $20 \%$ | $80 \%$ |
| Depreciation of Equipment | $80 \%$ | Nil | $20 \%$ |
| Depreciation of Vehicles | Nil | $90 \%$ | $10 \%$ |

## 3. (continued)

5 Depreciation is to be charged as follows.
Equipment - $20 \%$ on reducing balance.
Vehicles - $20 \%$ on cost.
6 Corporation Tax charge for the year is $£ 45,000$.
7 The following dividends were paid on 20 December Year 2. No entries had been made in the accounts of the plc.

Ordinary share dividend of 1 p per share.
Preference share dividend paid in full.
(a) Using the above information calculate:
(i) Cost of Sales;
(ii) Distribution Costs;
(iii) Administration Expenses.
(b) Prepare the Profit and Loss Account for the year ended 31 December Year 2 in a form suitable for publication, together with a Balance Sheet on that date.
4. "The fact that a business has made a healthy profit does not necessarily mean that there is sufficient ready cash available to meet its needs."
(a) Explain the purpose of a Cash Flow Statement (FRS1) and outline the accounting statements required to prepare it.
(b) Identify the different sections contained in the Cash Flow Statement and
describe the information included in each section.
5. Explain how the following are dealt with when preparing a Consolidated Balance Sheet.
(i) Goodwill
(ii) Post acquisition profits
(iii) Minority Interest
(iv) Unrealised profits
(v) Consolidated reserves
[Turn over for Section B on Page ten

## You should attempt 3 questions from this section.

## Question 6, AND Question 7 OR 8, AND Question 9 OR 10.

6. Ring Ltd has been formed to produce 4 products $-\mathrm{W}, \mathrm{X}, \mathrm{Y}$ and Z. Each product passes through 3 departments - Machining, Assembly and Finishing.

## Estimated data for Period 1

| Product | W | X | Y | Z |
| :--- | :--- | :--- | :--- | :--- |
| Units Produced | 200 | 250 | 400 | 210 |
| Labour hours per unit | 10 | 8 | 10 | 8 |

## NOTES:

1 Labour hours are split between departments as follows.
Machining - 50\%
Assembly -30\%
Finishing - 20\%
2 The percentage of labour hours spent on machines in the Machining Department is

Product W-80\%
Product X - 50\%
Product Y - 60\%
Product Z $-75 \%$.
3 Departmental Overhead Costs

| Machining | Assembly | Finishing |
| :--- | :--- | :--- |
| $£ 19,406$ | $£ 10,164$ | $£ 9,222$ |

(a) (i) Calculate the factory-wide rate for overhead absorption based upon direct labour hours worked.
(ii) Calculate the overhead charge per unit for each product.
(b) (i) Calculate departmental rates for overhead absorption for each department using the following bases.

Machining - Rate per machine hour
Assembly - Rate per labour hour
Finishing - Rate per unit
(ii) Calculate the overhead charge per unit for each product.

## 6. (continued)

The factory overhead costs were further analysed on an activity basis as follows.

| Activity | Cost | Cost Driver |
| :--- | ---: | :--- |
| Set up | $£ 20,000$ | Number of production runs |
| Material requisitioning | $£ 8,000$ | Number of requisitions |
| Quality control | $£ 5,492$ | Number of production runs |
| Order despatch | $£ 5,300$ | Number of batches sold |

Products $\mathrm{W}, \mathrm{X}$ and Y will be produced in batches of 50 .
Product Z will be produced in batches of 70 .
All sales will be in batches of 10 .
The number of requisitions for each product will be 10 .
(c) (i) Calculate the overhead absorption rate for each activity.
(ii) Show for each product the total overhead absorbed per activity.
(iii) Calculate the overhead charge per unit for each product.
7. Wagner plc has been formed to manufacture 4 products. Budgets will be produced for each 60-day budget period each year.

## Estimated data for Period 1 Year 1

| Product | A | B | C | D |
| :--- | :--- | :--- | :--- | :--- |
| Production (Units) | 1,000 | 2,000 | 3,000 | 2,000 |
| Costs per unit (£) |  |  |  |  |
| Materials | 10 | 10 | 5 | 9 |
| Labour | 20 | 8 | 25 | 32 |
| Variable overhead | 5 | 6 | 10 | 15 |
| Selling price per unit (£) | 115 | 44 | 80 | 96 |

Fixed costs will be $£ 160,000$.
No stocks will be held.
Production will be scheduled at a uniform rate throughout the budget period.
(a) Calculate:
(i) the weighted average contribution per unit for each product;
(ii) the budgeted total contribution and profit for Period 1;
(iii) the break even point in units of each product and in total;
(iv) the number of days' production required to break even;
(v) the sales in units and value of each product required to provide a profit of $£ .72,000$ after tax at $25 \%$.

Wagner plc's directors are also considering the addition of Product E which would cost $£ 50$ per unit and take 2 hours to produce. Fixed costs would rise to $£ 250,000$.
Wagners plc's capacity is limited by the shortage of labour to 18,000 hours per budget period. Labour costs $£ 10$ per hour.

The demand for Product E will be dependent upon its price as follows.
$\begin{array}{rl}\text { Price } & \text { Demand } \\ £, 90 & 3,000 \text { units } \\ £, 120 & 2,000 \text { units }\end{array}$
The minimum production run of any product is to be 1,000 units.
(b) (i) Calculate the effect on maximum profits if Product E is produced in each of the above quantities.
(ii) Advise Wagner plc whether or not to produce Product E and at which level of output.
[Turn over for Question 8 on Page fourteen
8. PART A

Fire Ltd produces a single product called Magma.
The following data relate to Year 3.

|  | Budgeted | Actual |
| :--- | :--- | :--- |
| Production and Sales (units) | 4,000 | 3,975 |
| Selling price per unit | $£ 300$ | $£ 310$ |
| Direct material usage | 8 kg per unit | $31,600 \mathrm{~kg}$ |
| Direct material cost | $£ 8$ per kg | $£ 259,500$ |
| Direct labour | 10 hours per unit | 40,250 hours |
| Direct labour cost | $£ 10$ per hour | $£ 394,450$ |
| Variable overhead | $30 \%$ of labour cost | $£ 115,000$ |
| Fixed overhead | $£ 15$ per unit | $£ 61,000$ |
| (Recovered at a rate per unit) |  |  |

(a) Calculate the total standard cost of actual sales for Year 3.
(b) Calculate the following variances.
(i) Sales price
(ii) Sales volume
(iii) Material price
(iv) Material usage
(v) Labour rate
(vi) Labour efficiency
(vii) Variable overhead expenditure
(viii) Variable overhead efficiency
(ix) Fixed overhead expenditure
(x) Fixed overhead volume

## 8. (continued)

## PART B

Ice plc has provided the following budget data for Month 6 .

Output
Costs:
Materials
Labour
Direct expenses
Maintenance
Heating and lighting
Rent and rates
Salaries
Miscellaneous expenses

6,000 units
$1,200 \mathrm{~kg} @ £ 3$ per kg
1,800 hours @ £8 per hour £1,500
$£ 1,000$ (£400 fixed)
£1,600
£2,000
$£ 10,000$
£3,000 (£1,200 variable)

Ice plc's maximum production capacity is 10,000 units.
$50 \%$ of all sales will be for cash at $£ 10$ per unit and the remainder sold on credit at a discount of $5 \%$ of the cash price.

Assuming an activity level of $80 \%$ prepare a budget statement for Month 7 and calculate the budgeted profit for the month.
9. "Outputs from production processes may be higher or lower than expected."
(a) Explain the treatment of production losses or gains in process accounting.
(b) Discuss the problems of arriving at an accurate cost per unit in process accounting (other than the problems caused by production losses or gains).
10. (a) Explain the differences between "mutually exclusive" and "alternative" projects.
(b) Describe 4 methods of investment appraisal, stating the advantages and disadvantages of each.
(c) Explain why investment appraisal methods based upon discounted cash flows may not be suitable for use when comparing "mutually exclusive" projects.

