

X800/76/11 Accounting

TUESDAY, 13 MAY 9:00 AM – 11:30 AM

Total marks — 120

SECTION 1 — 80 marks

Attempt ALL questions.

SECTION 2 — 40 marks

Attempt ALL questions.

You may use a calculator.

All working should be shown fully, and clearly labelled.

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. Derwent Ltd has 2 production departments — X and Y. These are supported by 2 service departments — Department Z and Department C.

The following are the estimated overheads for Year 2.

Indirect labour	£132,510
Supervision	£22,050
Machinery depreciation	£51,000
Rent	£49,700
Power	£17,500
Administration	£45,000
	£317,760

The following information is also available.

	Dept X	Dept Y	Dept Z	Dept C	Totals
Area (sq metres)	7,200	3,000	1,800	2,000	14,000
Number of Employees	40	32	8	10	90
Value of Machinery	£224,000	£168,000	£86,000	£32,000	£510,000
Kilowatt hours	20,000	10,000	2,000	3,000	35,000
Machine hours	82,400	28,225	_		110,625
Indirect labour	£52,600	£38,790	£35,570	£5,550	£132,510
Direct Materials	£720,000	£240,000	_		£960,000

- (a) (i) Using the information above, prepare an Overhead Analysis Statement for Year 2.
 - (ii) Re-apportion the service department overheads as follows:
 - Department C on the basis of Number of Employees.
 - Department Z on the basis of Direct Materials.
- (b) Calculate the overhead absorption rate for the production departments as follows:
 - Department X based on Direct Machine hours.
 - Department Y based on Percentage of Direct Material Cost.

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1. (continued)

At the end of Year 2 the actual figures for each department were:

	Dept X	Dept Y
Direct Machine hours	78,500	28,100
Direct Material Costs	£705,000	£245,000
Overheads	£195,120	£119,300

(c) Calculate for departments X and Y the amount of overheads over-absorbed or under-absorbed, clearly indicating which.

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Derwent Ltd is in the process of putting together a quote for a prospective customer. The following data has been made available for quotation DERQ005.

Direct Material:

- Department X 2,100 kilos @ £15.50 per kilo
- Department Y £28 per kilo used at a rate of 1 kilo for every 3.5 kilos of Direct Material used in Department X
- Additional materials will amount to 4% of total Direct Material cost for Departments X and Y

Direct Labour:

Department X — 120 hours @ £18 per hour

Department Y — 125 hours @ £22 per hour (includes 25 hours of overtime paid at time and a half)

Machine Hours:

Department X — 100 hours

Department Y — 80 hours

Direct Expenses are expected to total £2,091.

Profit margin is set at 20%.

(d) Prepare a Job Cost Statement for DERQ005.

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For Year 3, the Finance Director is considering using a factory-wide overhead recovery rate for absorbing overheads, based on units produced. Current estimates show that overheads are likely to be 25% higher than those estimated for Year 2 and that production should be in the region of 20,000 units.

(e) Calculate the estimated overhead absorption rate for Year 3.

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(f) (i) Describe why some overheads are allocated and others are apportioned.

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(ii) Describe advantages of using spreadsheets in the preparation of management accounting statements.

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2. McLeod and Akram are in partnership sharing profits and losses in the ratio of equity invested. The following is their Trial Balance as at 31 December Year 4 after the preparation of the Income Statement up to Profit for the Year.

Trial Balance of McLeod and Akram as at 31 December Year 4

	£000	£000
Profit for the Year		151
Equity Accounts:		
McLeod		200
Akram		300
Current Accounts at 1 January Year 4:		
McLeod		15
Akram	18	
Drawings:		
McLeod	40	
Akram	60	
Inventory at 31 December Year 4	55	
Property at cost	450	
Equipment at cost	80	
Vehicles at cost	40	
Provisions for depreciation:		
Equipment		26
Vehicles		20
Cash and Cash Equivalents	86	
Trade Payables		77
Trade Receivables	66	
Provision for Doubtful Debts		3
VAT		3
Loan — McLeod (received 1 April Year 4)		160
Investments	60	
	955	955

NOTES at 31 December Year 4

- 1. The interest on the partnership loan from McLeod has not yet been accounted for in the Profit for the Year figure.
- 2. A professional revaluation of property took place which valued the property at £500,000.
- 3. The partnership agreement of McLeod and Akram states that:
 - Interest on equity is to be paid at 10% per annum
 - Interest on drawings is to be charged at 15% per annum
 - A partnership salary of £55,000 will be paid to Akram
 - Interest on loans from partners will be paid at 5% per annum.

2. (continued)

- (a) Prepare the:
 - (i) Income Statement (Appropriation section) for the year ended 31 December Year 4.

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(ii) Updated Current Accounts.

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(iii) Statement of Financial Position as at 31 December Year 4.

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(b) At the start of Year 7 McLeod and Akram admit a new partner, Chan.

The following assets were revalued prior to Chan being admitted:

	Year 6 value	New value
Equipment	£80,000	£95,000
Vehicles	£92,000	£70,000
Inventory	£55,000	£47,000

- Revaluation expenses amount to £4,000.
- The provision for doubtful debts is to be increased by £1,000.
- (i) Calculate the share of profit or loss on revaluation for each partner.

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Chan is to receive 25% of residual profits, with the other partners sharing the remainder in the same relative proportions as before.

(ii) State the new profit sharing ratio.

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- Chan contributes £250,000 equity to the partnership.
- Goodwill is estimated at £50,000 and is to be written off against the Equity Accounts of the new partnership.
- It is agreed that the partners' Current Account balances at the start of Year 7 should be transferred to their Equity Accounts. They are:
 McLeod £19,000 (Cr); Akram £25,000 (Dr).
- (iii) Calculate the new Equity Account balances for each partner at the start of the new partnership.

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(c) Other than the introduction of more equity, outline 2 reasons for the admission of a new partner.

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SECTION 2 — 40 marks Attempt ALL questions

3. PART A

On 1 April Bain Manufacturing had an opening balance of 600 kgs of material ST200, valued at £20.00 per kg. The following are the purchases and issues for this material for the month of April.

Date	Transaction	Units	Price
3 April	Purchases	900 kg	£20.50
10 April	Issues	300 kg	
15 April	Purchases	600 kg	£21.50
20 April	Issues	500 kg	
24 April	Returns 300 kg of material purchased on 3 April as poor quality		

Prepare the Inventory Record Card for material ST200 for the month of April using the Weighted Average Method (AVCO).

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3. PART B

Simpsons Installations install heating systems. They are considering offering a maintenance contract for their customers which will comprise an annual service of the customers' heating system.

Below are details relating to the provision of this proposed service.

- 1. There are 3 service technicians who will spend 50% of their working time carrying out services. Their basic working week is 35 hours, but on average they work another 5 hours overtime each week. The basic wage is £18.00 per hour and overtime is paid at time and a half.
- 2. Each service technician works 48 weeks per year and their 4 weeks holiday is paid at the basic weekly rate.
- 3. In total there are 3 service vans. They cost £18,000 each and have an estimated life of 3 years, with a residual value of £3,000. These vans will only be used for the servicing contract.
- 4. Each service technician will cover an average of 100 miles per week whilst carrying out the servicing.
- 5. Vans use up 1 litre of petrol for every 8 miles, and the current cost of petrol is estimated at £1.45 per litre.
- 6. Other annual operating costs are estimated to be:
 - Vehicle Tax £300 per van
 - Maintenance and repairs £2,000 per van
 - Insurance £1,200 in total for all vans.
- 7. The estimated share of Office and Administrative costs relating to the service is £1,830 per annum.
- 8. It is estimated that 200 services will be carried out each quarter.
- (a) Prepare a Service Costing Statement to calculate the cost of operating the 'Annual Service' for Simpsons Installations.

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(b) Calculate the cost per service.

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(c) Calculate the selling price Simpsons Installations should charge customers for this service, if they apply a profit mark-up of 25%.

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Formulae Sheet

Equity Gearing Ratio
(Preference Shares + Long-term Liabilities) : Ordinary Shares
Dividend Yield
Ordinary Dividend per share × 100
Market Price per share
Dividend Cover
(Profit for the Year after Tax – Preference Share Dividend)
Ordinary Share Dividend
Earnings per share
(Profit for the Year after Tax – Preference Share Dividend)
Number of Ordinary Shares
Price/Earnings Ratio
Market Price per share
Earnings per share
Interest Cover
Profit for the Year before Interest and Tax
Interest

4. The following information relates to Rylands plc and Carrick plc for Year 4:

	Rylands plc	Carrick plc
Ordinary Shares of £1 each	£250,000	£500,000
5% Preference Shares of £1 each	£400,000	£150,000
10% Debentures	£200,000	£100,000
Market Price per Ordinary Share	£1.74	£1.66

(a)	(i)	Calculate the Equity Gearing Ratio for each company.	
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(ii) Identify the company that would be most attractive to the ordinary shareholders when profits are high. Justify your answer.

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At 31 December Year 4, Rylands plc:

- earned a Profit for the Year of £240,000 (before debenture finance cost and corporation tax)
- will provide for Corporation Tax at the rate of 25%.

(b) Calculate for Rylands plc, the:

- (i) Profit for the Year after debenture finance cost and tax.
- (ii) Profit available to ordinary shareholders.
- (iii) Profits to be retained if a dividend of £0.07 per share is declared for Ordinary Shareholders.
- (iv) Earnings per share.
- (v) Price/Earnings Ratio.
- (vi) Dividend Cover (to 2 decimal places).
- (c) Carrick plc has declared an ordinary share dividend of £0.16 for Year 4. Calculate the Dividend Yield for Carrick plc (to 2 decimal places).
- (d) (i) Outline advantages of using ratio analysis.
 - (ii) Describe the following sources of finance of a plc:
 - Ordinary Shares
 - Preference Shares
 - Debentures.

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