

X800/77/11 Accounting

TUESDAY, 13 MAY 9:00 AM – 11:30 AM

Total marks — 140

SECTION 1 — 80 marks

Attempt ALL questions.

SECTION 2 — 60 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. The following information has been made available from the accounts of Ontario plc for the year ended 31 December Year 5.
  - 1. Movements in Non-Current Assets

	Land and Property	Machinery	Equipment
	£000	£000	£000
Acquisitions and Disposals:			
Purchases	250	125	60
Sales	(80)	(40)	(15)
Provisions for Depreciation:			
Written off to Income Statement	_	90	30
On Sales	_	40	5
Revaluation of Assets:			
Property	75		
Proceeds from Sale	125	10	6

2. The Statements of Financial Position for Years 4 and 5 showed the following:

	31 December Year 4	31 December Year 5
Current Assets/Liabilities	£000	£000
Inventory	20	32
Trade Receivables	22	13
Trade Payables	14	21

	£000	£000
Corporation Tax Payable	25	20
Debenture Finance Cost Payable	15	18
10% Debentures*	150	210
Retained Earnings	360	620

<sup>\*</sup> Note - Debentures were issued on 1 July Year 5

- 3. During the year, Ontario plc issued 150,000 50p Ordinary shares at a 20% premium.
- 4. The Income Statement for the year ended 31 December Year 5 included the following:

	£000
Debenture Finance Cost	?
Ordinary Dividends	40
Corporation Tax	50

1.	(coı	ntinued)	MARKS
	(a)	Using the worksheet in your answer booklet and the information provided, prepare, in accordance with IAS 7, a Statement of Cash Flows for Ontario plc for the year ended 31 December Year 5.	37
	(b)	Justify the preparation of a Statement of Cash Flows by a public limited company.	3

### 2. PART A

Arno plc is currently manufacturing 20,000 units per annum of Product Q. This represents 80% of maximum capacity. The current selling price of Product Q is £86.

Budgeted costs per unit of Product Q are as follows.

Direct materials:

Process 1

Material A (£0.50 per kg) 3 kg per unit Material B (£0.75 per kg) 2 kg per unit

Process 2

Material C (£0.10 per kg) 20 kg per unit

Direct labour:

Process 1 (3 hours @ £12.50 per hour) Process 2 (0.5 hours @ £15.00 per hour)

Variable overheads:

Process 1 £1.25 per kg of materials Process 2 60% of labour cost

Other relevant information is as follows.

Rent and Rates £35,000 per annum Insurance £6,000 per annum

Power is £4 per unit of production plus a standing charge of £5,000 per annum. Other production overheads are estimated at £3,000 per annum plus 1.5% of prime cost, or 2% of prime cost if prime cost exceeds £1,300,000.

Arno plc want to increase production to 100% capacity, however this will increase variable overheads to £1.30 in Process 1.

Prepare a Flexible Budget which clearly shows projected net cash flow at 80% and 100%.

20

[Turn over for next question

DO NOT WRITE ON THIS PAGE

# Advanced Higher Accounting Formulae Sheet for Variance Analysis

Total Material Cost Variance	(Standard Quantity for Production $\times$ Standard Price) – (Actual Quantity used $\times$ Actual Price)
Material Price Variance	(Standard Price – Actual Price for Unit) × Actual Quantity used
Material Usage Variance	(Standard Quantity for Production – Actual Quantity used) × Standard Price
Total Labour Cost Variance	(Standard Rate × Standard Hours for Production) – (Actual Rate × Actual Hours worked)
Labour Rate Variance	(Standard Rate – Actual Rate) × Actual Hours worked
Labour Efficiency Variance	(Standard Hours for Production – Actual Hours worked) × Standard Rate
Variable Overhead Cost Variance	(Standard Hours for Production × Variable Overhead Absorption Rate) – Actual Variable Overhead Cost
Variable Overhead Expenditure Variance	(Actual Hours worked × Variable Overhead Absorption Rate) – Actual Variable Overhead Cost
Variable Overhead Efficiency Variance	(Standard Hours for Production – Actual Hours worked) × Variable Overhead Absorption Rate
Fixed Overhead Cost Variance	1. (Standard Hours for Production × Fixed Overhead Absorption Rate) – Actual Fixed Overhead Cost
Tixed Overmedd Cose variance	2. (Standard Units for Production × Fixed Overhead Absorption Rate) – Actual Fixed Overhead Cost
Fixed Overhead Expenditure Variance	Budgeted Fixed Overheads – Actual Fixed Overhead Cost
Fixed Overhead Volume Variance	1. Budgeted Fixed Overheads – (Standard Hours for Actual Production × Fixed Overhead Absorption Rate)
	2. (Actual Activity – Normal Activity) × Fixed Overhead Absorption Rate
Total Sales Revenue Variance	(Actual Selling Price × Actual Quantity) – (Budgeted Selling Price × Budgeted Quantity)
Sales Price Variance	(Actual Selling Price – Budgeted Selling Price) × Actual Quantity
Sales Volume Variance	(Actual Quantity – Budgeted Quantity) × Budgeted Selling Price

# 2. PART B

Findlay plc produces a single product.

The following information relates to Year 2.

	Budgeted	Actual		
Production and sales (units)	5,500	5,425		
Selling price per unit	£200	£210		
Direct material usage	7 kg per unit	43,400 kg		
Direct material cost	£5 per kg	£195,300		
Direct labour	4 hours per unit	27,125 hours		
Direct labour cost	£8 per hour	£189,875		
Variable overhead	40% of labour cost	£77,175		
Fixed overhead	£12 per unit	£70,525		
<ul><li>(a) Calculate the total standard cost of actual sales for Year 3.</li><li>(b) Calculate the following variances:</li></ul>				
(i) Material Price Variance				
(ii) Material Usage Varia	ance		2	
(iii) Labour Rate Varianc	e		3	
(iv) Labour Efficiency Va	ıriance		2	
(v) Sales Price Variance			2	
(vi) Sales Volume Varian	ce		2	
(vii) Fixed Overhead Exp	enditure Variance		2	

3

4

6

# SECTION 2 — 60 marks Attempt ALL questions

**3.** Dalmon plc produces and sells 3 products: C1, C2, and C3. It currently uses a factory-wide rate for absorbing overheads based on machine hours but is considering introducing an Activity Based Costing system for allocating overhead costs to its products.

The following are the expected overhead costs for Period 3:

	£
Machining costs	12,000
Set-up costs	4,050
Receiving costs	5,200
Inspection costs	5,250
Despatch costs	5,500

The cost drivers which have been identified for these activities are as follows:

Machining costs
Set-up costs
Receiving costs
Inspection costs
Despatch costs

Machine hours
Production runs
Requisitions raised
Production runs
Orders completed

The following data relates to the 3 products:

	C1	C2	C3
Production (units)	1,200	800	400
Direct material cost per unit	£46	£58	£35
Direct labour cost per unit	£21	£14	£7
Machine hours per unit	4	3	2
Number of production runs	6	5	4
Number of requisitions raised	20	15	15
Number of orders completed	17	18	15

- (a) (i) Calculate the factory-wide overhead absorption rate.
  - (ii) Using this overhead absorption rate, calculate the total cost per unit for each product.
- (b) Using an Activity Based Costing system, calculate:
  - (i) the overhead absorption rate for each activity
  - (ii) the total cost per unit for each product (correct to 2 decimal places).

3.	(con	itinue	ed)	MARKS
	(c)	(i)	Describe 2 advantages of introducing an Activity Based Costing system.	2
		(ii)	Justify the use of Marginal Costing for a business.	3

4. PART ADuffy plc has provided the following data for the year ended 31 December Year 2.

Trial balance as at 31 December Year 2	Dr	Cr
	£000	£000
Sales revenue		24,000
Purchases of finished goods	5,000	
Wages and salaries	10,000	
Inventory on 1 January Year 2	2,500	
Operating expenses	4,200	
Finance costs of Debentures	200	
Discounts (net)		100
Carriage inwards	100	
Directors' fees	750	
Trade receivables and payables	4,500	700
Cash and cash equivalents	7,200	
Land and property at cost	20,000	
Plant and Machinery at cost	10,000	
Vehicles at cost	6,000	
Provisions for depreciation:		
Plant and Machinery		2,000
Vehicles		900
Interest received		250
VAT		600
10% Debentures		4,000
Ordinary shares of £0.25 each (fully paid)		35,000
Share premium		1,000
Investments at cost (current market value £585,000)	600	
Retained earnings at 31 December Year 2		2,500
	71,050	71,050

## 4. PART A (continued)

### In addition:

- 1. Inventory of finished goods at 31 December Year 2 £1,880,000.
- 2. Auditors' fees unpaid £150,000.
- 3. Prepaid operating expenses amounted to £300,000.
- 4. Depreciation is to be charged as follows:
  - Plant and Machinery 15% straight line
  - Vehicles 20% on reducing balance.
- 5. Allocate expenses as follows:

	Cost of Sales	Distribution	Administration
Wages and salaries	20%	50%	30%
Operating expenses	Nil	30%	70%
Depreciation of Plant and Machinery	70%	20%	10%
Depreciation of Vehicles	Nil	90%	10%

- 6. Corporation tax charge for the year is £450,000.
- 7. An ordinary share dividend of 3p per share was paid on 20 December Year 2. No entries had been made in the accounts of Duffy plc.
- (a) Using the above information, calculate:
  - Cost of Sales
  - · Distribution costs
  - Administration expenses.

12

(b) In accordance with IAS 1, Presentation of Financial Statements, prepare an Income Statement for Duffy plc for the year ended 31 December Year 2.

6

### 4. PART B

CopyCom are a print management company who lease printers and copiers. In contract negotiations with a customer they have presented them with 2 options for a 3-year lease agreement.

	Option A (£ million)	Option B (£ million)
Initial Payment to CopyCom from Customer	5.7	3.8
Service Payments to CopyCom:		
Year 1	2.8	4.3
Year 2	3.2	4.7
Year 3	3.6	5.1

- The agreement is for brand new devices which will be an initial investment for CopyCom of £14 million. The initial payment to CopyCom from the customer will go towards offsetting the cost of these new devices. All devices will be depreciated at 20% straight line with the residual value to be factored into Year 3 cash flows.
- There are dismantling and removal charges of 5% of the initial payment which is charged to the customer in Year 3.
- The cost to CopyCom of providing leasing services each year for each option is as follows.

	Option A (£ million)	Option B (£ million)
Year 1	0.4	0.7
Year 2	0.6	1.1
Year 3	0.8	1.5

CopyCom has a cost of capital of 14%. Discount factors at this rate are:

- (a) Calculate the Net Present Value (NPV) of each option to CopyCom. All calculations should be done to 3 decimal places (where appropriate).
- (b) State which option will generate the most cash for CopyCom, giving a reason for your answer.

11

1