Business Finance
Level 3

8990-03-003
Sample paper 1

This paper must be returned with the candidate's work, otherwise the entry will be void and no result will be issued.

Candidate's name (Block letters please)

Centre no **Date**

Time allowed: 2 hours and 30 minutes
(plus 5 minutes reading time).

Note making is not allowed during reading time.

Answer **all** questions.

Show all your workings. All **final** answers must be written in blue or black ink.

Your answers should be written in the question booklet in the spaces provided.

If additional separate sheets of paper are used, make sure each page is clearly labelled with your name.

Recommended equipment: calculator, pencil, ruler, eraser.

For examiner's use only

Task 1	Task 2	Task 3	Task 4	Task 5	TOTAL
/26	/16	/16	/24	/18	/100

 V1

Complete all tasks

You are employed in the management accounting section of Nicola Ltd and have been asked to complete a number of tasks.

Task 1

Nicola Ltd has three departments within a manufacturing unit: production, finishing and stores. Costing information for the last four weeks is as follows.

	Production	Finishing	Stores
Number of employees	500	1 500	125
Area (square metres)	45 000	75 000	30 000
Plant (at cost £)	200 000	300 000	100 000
Number of requisitions from stores	1 000	4 000	Nil

Some indirect costs have been allocated and you have been asked to complete the analysis of costs between the three departments.

The stores department costs are to be apportioned between production and finishing.

a) Analyse the costs in the statement below using the basis of apportionment shown.

Cost	Basis of apportionment	Total £	Production £	Finishing £	Stores £
Plant insurance and depreciation	Cost of plant	96 000	32 000	48 000	16 000
Rent and rates	Area	9 000			
Heat and light	Area	2 000			
Indirect wages	Number of employees	74 375			
Cleaning and maintenance	Area	15 000			
Administration	Number of employees	19 125			
		215 500			
Stores requisitions					

(20 marks)

b) Your manager has asked you also to calculate the overhead absorption rates based on 22 380 direct labour hours for production and 56 000 direct labour hours for finishing. Answers should be given to the nearest pence.

i) Overhead absorption rate – production

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(3 marks)

ii) Overhead absorption rate – finishing

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(3 marks)

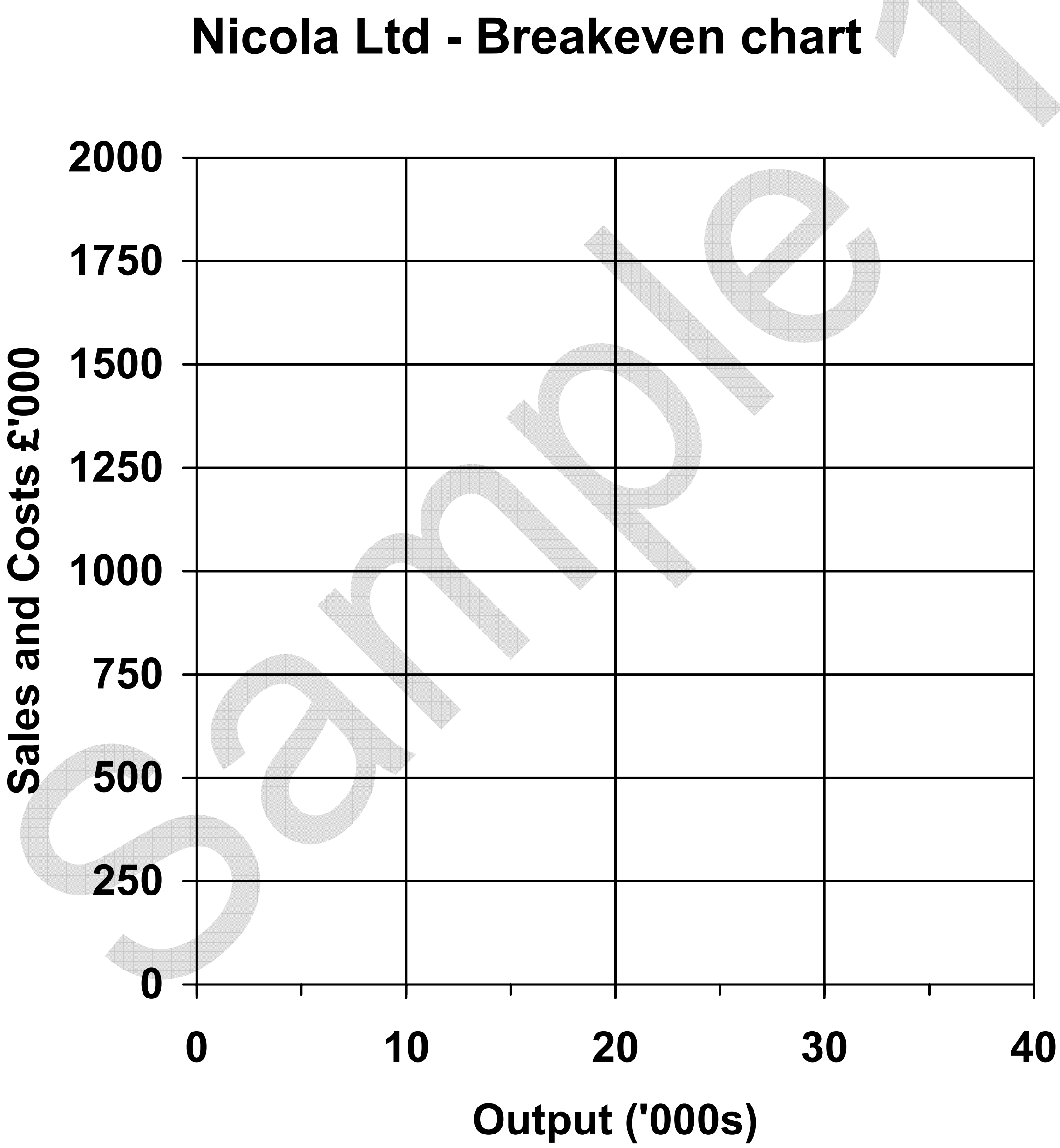
(Total 26 marks)

Task 2

Nicola Ltd is about to launch a new product. Each unit will be sold for £50. The variable costs of production are estimated at £25 each. Fixed costs are £375 000.

You have been asked to prepare a graph for the sales manager indicating how many units her staff must sell to breakeven.

a) Prepare a breakeven chart.



(8 marks)

b) Calculate the number of units that must be sold to make a profit of £50 000.

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(5 marks)

c) Calculate the margin of safety in units at a profit of £50 000.

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(3 marks)

(Total 16 marks)

Task 3

Nicola Ltd produces a number of products with differing levels of success. Your manager has asked you to analyse three products, D47, D49 and D55 using marginal costing so that a decision may be made about retaining or stopping production of one or more of the products.

The following costing information is available for the last year.

	D47	D49	D55
	£	£	£
Variable cost per unit	10	8	7
Allocated fixed cost per unit	3	3	3
Total cost per unit	13	11	10
Sales price per unit	12	7	12
Profit/(loss)	(1)	(4)	2

a) Complete the following marginal costing analysis identifying the contribution for each product.

	D47 £	D49 £	D55 £	£
Sales price per unit				
Variable cost per unit				
Contribution				
Fixed costs				9
Profit/(loss)				(3)

(9 marks)

b) Prepare a memorandum to analyse your findings.

Memorandum

To: Manager Date: Today
From: Assistant

Subject: Analysis of findings

(7 marks)

(Total 16 marks)

Task 4

Nicola Ltd operates a standard costing system. The organisation is particularly concerned with the management of one business unit and has asked your manager to investigate. You have been asked to analyse some results to assist in this investigation.

The standard costs of one unit produced by the business unit are as follows.

Direct materials	10 kg @ £2.00 per kg =	£20.00
Direct wages	5 hours @ £8.00 per hour =	£40.00
		£60.00

The actual costs for 100 units were recently recorded as follows.

Direct materials	£2 042 (for 1 090 kg)
Direct wages	£8 644 (for 490 hours)

a) Calculate the following variances.

i) Direct materials price variance:

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(4 marks)

ii) Direct materials usage variance:

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(4 marks)

iii) Direct labour rate variance:

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(4 marks)

iv) Direct labour efficiency variance:

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(4 marks)

b) Explain **one** reason why **each** of the variances you have calculated have occurred.

i) Direct materials price

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(2 marks)

ii) Direct materials usage

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(2 marks)

iii) Direct labour rate

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(2 marks)

iv) Direct labour efficiency

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(2 marks)

(Total 24 marks)

Task 5

Nicola Ltd is considering purchasing new plant and equipment costing £100 000 and needs to evaluate the purchase. Your manager has asked you to make some calculations to assist in this decision.

Estimates of the likely net cash flows to be generated by use of the plant and equipment are as follows.

Year 1	£30 000
Year 2	£40 000
Year 3	£30 000
Year 4	£10 000
Year 5	£20 000

Cash flow accrues evenly during the year.

The plant and equipment is expected not to have a scrap value.

a) Calculate the payback period for the new plant and equipment.

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(2 marks)

b) Calculate the net present value of the new plant and equipment using the table below which contains discount factors for Nicola Ltd's cost of capital of 10%.

Year	Inflow/(outflow) £	Discount Factor	Net present value £
Year 0		1.000	
Year 1		0.909	
Year 2		0.826	
Year 3		0.751	
Year 4		0.683	
Year 5		0.621	

(9 marks)

c) State if Nicola Ltd should purchase the plant and equipment and evaluate your answer.

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(7 marks)

(Total 18 marks)