

Business Finance - Level 3
Marking Scheme – Sample Paper 1

(NB * = own figure)

Task 1

a)

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	2 700 (1)	4 500 (1)	1 800 (1)
Heat and light	Area	2 000	600 (1)	1 000 (1)	400 (1)
Indirect wages	Number of employees	74 375	17 500 (1)	52 500 (1)	4 375 (1)
Cleaning and maintenance	Area	15 000	4 500 (1)	7 500 (1)	3 000 (1)
Administration	Number of employees	19 125	4 500 (1)	13 500 (1)	1 125 (1)
		215 500	61 800	127 000	26 700
Stores requisitions			5 340 (1*)	21 360 (1*)	(26 700)(1*)
			67 140(1*)	148 360(1*)	

(20 marks)

b)

i) Overhead absorption rate – production

$$\frac{\text{Total costs}}{\text{Direct labour hours}} = \frac{67\,140\ (1^*)}{22\,380\ (1)} = £3.00\ (1^*)$$

ii) Overhead absorption rate – finishing

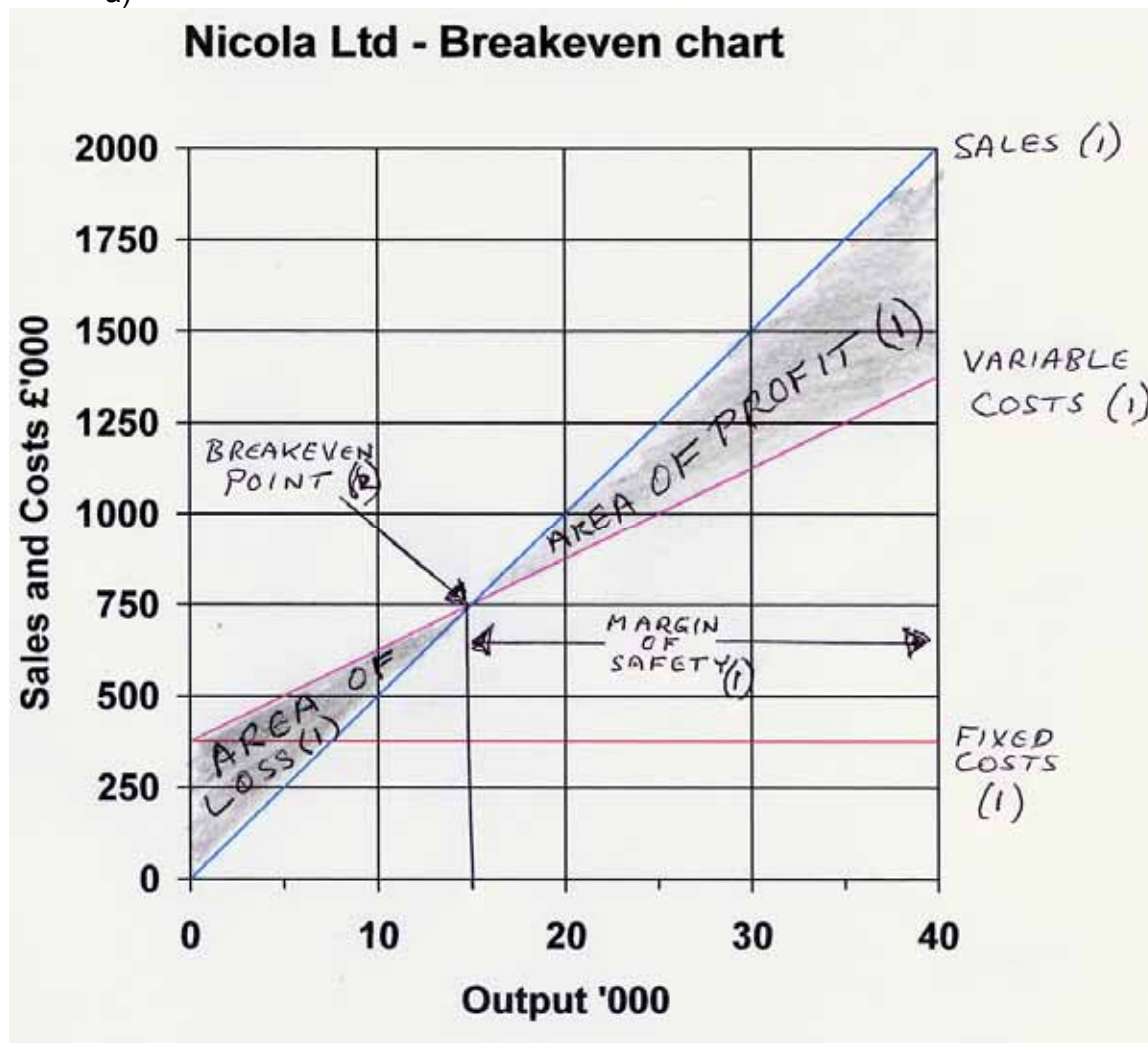
$$\frac{\text{Total costs}}{\text{Direct labour hours}} = \frac{148\,360\ (1^*)}{56\,000\ (1)} = £2.65\ (1^*)$$

(6 mark)

(26 marks)

Task 2

a)



(8 marks)

b)

$$\frac{\text{Fixed costs} + \text{profit}}{\text{Contribution per unit}} = \frac{375\,000 \text{ (1)} + 50\,000 \text{ (1)}}{(50 - 25) \text{ (1)}} = 17\,000 \text{ units (2) or (1*)}$$

(5 marks)

c)

$$17\,000 \text{ (1*)} - 15\,000 \text{ (1*)} = 2\,000 \text{ (1)}$$

(3 marks)

(Total 16 marks)

Task 3

a)

	D47 £	D49 £	D55 £	£
Sales price per unit	12 (1)	7 (1)	12 (1)	
Variable cost per unit	<u>10</u> (1)	<u>8</u> (1)	<u>7</u> (1)	
Contribution	2 (1)	(1) (1)	5 (1)	6
Fixed costs				<u>9</u>
Profit/(loss)				<u>(3)</u>

(9 marks)

b)

Memorandum To: Manager From: Assistant Subject: Analysis of findings Date: Today
<p>A calculation of profit or loss generated per unit of products D47, D49 and D55 indicates that D47 and D49 are making losses. (1) + (1)</p> <p>However, marginal costing shows that product D49 is making a negative contribution. (1) This product should be discontinued immediately (1) unless variable costs can be decreased (1) or prices increased. (1)</p> <p>Product D47 makes a contribution to fixed costs (1) so should be continued to prevent additional losses. (1)</p> <p>D55 should be retained as it generates a positive contribution (1) and profit if fixed costs are divided equally between all products. (1)</p> <p style="text-align: center;">(NB Marks to be awarded for comments consistent with figures)</p>

(max 7 marks)

(Total 16 marks)

Task 4

a)

i) Direct materials price variance:

$$(1\,090\text{ (1)} \times £2\text{ (1)}) - £2\,042\text{ (1)} = £138\text{ Favourable (1)}$$

ii) Direct materials usage variance:

$$(1\,000\text{ (1)} - 1\,090\text{ (1)}) \times £2\text{ (1)} = £180\text{ Adverse (1)}$$

iii) Direct labour rate variance

$$(490\text{ (1)} \times £8\text{ (1)}) - £8\,644\text{ (1)} = £4\,724\text{ Adverse (1)}$$

iv) Direct labour efficiency variance

$$(500\text{ (1)} - 490\text{ (1)}) \times £8\text{ (1)} = £80\text{ Favourable (1)}$$

(16 marks)

b)

i) Direct materials price

Prices of materials have fallen **(1)** through bulk buying, discounts or market factors or purchase of cheaper and possibly lower quality materials **(1 for one acceptable reason for price difference)**

ii) Direct materials usage

Materials have been wasted **(1)** because of poor quality or production problems **(1 for one acceptable reason for usage variance)**

iii) Direct labour rate

Wages have increased significantly **(1)** because of a pay rise or increased overtime needed to work on cheaper, lower quality materials. **(1 for acceptable reason for rate variance)**

iv) Direct labour efficiency

Workers have become more efficient **(1)** in response to pay rises and/or greater motivation. **(1 for acceptable reason)**

(8 marks)

(NB Accept reasons consistent with calculations and other acceptable answers)

(Total 24 marks)

Task 5

- a) Payback period: 3 years **(2)**

(Workings)

Outflow		100 000	
Inflow – Year 1	30 000		
Year 2	40 000		
Year 3	<u>30 000</u>	<u>100 000</u>	

(2 marks)

- b)

Year	Inflow/(outflow) £	Discount Factor	Net present value £
Year 0	(100 000) (1)	1.000	(100 000) (1)
Year 1	30 000	0.909	27 270 (1*)
Year 2	40 000	0.826	33 040 (1*)
Year 3	30 000	0.751	22 530 (1*)
Year 4	10 000	0.683	6 830 (1*)
Year 5	20 000	0.621	<u>12 420</u> (1*)
			2 090 (2) or (1*)

(9 marks)

- c) Based on the figures the company should purchase the plant and equipment **(1*)**
because the net present value is positive **(1*)**
and the payback period is relatively quick **(1*)**

However, the figures for cash flows are forecast so are they realistic? **(1)**

For example, are cash flows evenly spread and will there be costs of disposal of the plant at the end even if it does not have a scrap value? **(1)**

The net present value calculations are based on a cost of capital of 10%. Is this reasonable for the period of the project? **(1)**

Has the company considered other options? **(1)**

(NB Accept other reasonable points)

(7 marks)

(Total 18 marks)