Paper 2

Section A

Question 1

(a)
Flexible budgets recognise the difference in cost behaviour **(1)** between fixed and variable costs in relation to fluctuations in output, **(1)** turnover, or other variable factors.

Flexible budgets may be used in two ways;
i) At planning stage **(1)** - considering the implications of a range of output scenarios.**(1)**
ii) Retrospectively over a control period **(1)** - to compare actual results achieved with what results should have been. **(1)**

(6 Marks)

(b) Flexible Budget For The Year Ended 31 May 2003

	Budget £000	Actual £000	Variance £000
Sales	750 **(1)**	750	0
Cost of sales	(300)**(1)**	(295)	5
Gross profit	450 **(1)**	455	5 **(1)OF**
less			
Wages	75 **(1)**	80	(5)
Salaries	50 **(1)**	50	-
Heat and power	40 **(1)**	25	15
Advertising	90 **(1)**	110	(20)
Bad debts	15 **(1)**	25	(10)
Depreciation	85 **(1)**	80	5
	355	370	(15)
Net profit	95 **(1)OF**	85	10 **(1)OF**
	450	455	(5)

(12 Marks)

(c)
When the budget for the year is flexed to the actual level of activity **(1)** , the budgeted net profit was £95 000 **(1)**. The actual profit of £85 000 represented an underachievement **(1)** of the projected profit by £10 000 **(1)**. Although the cost of sales was below the budgeted level **(1)** by £10 000, and heat and power showed significant savings **(1)** other actual expenditures were well above the budgeted level, particularly advertising **(1)** and bad debts **(1).** The managing director should seek to control these expenditures **(1)** if actual profitability is to return to the budgeted level. **(1).**

(MAX 7 Marks)

(Total 25 Marks)

Question 2

(a) The angle of incidence equals the angle between the revenue line **(1)** and the total cost line.**(1)**

Where the angle is narrow, the revenue line emanates from the zero intersection and the total cost line emanates from a low cost (fixed cost) **(1)** at zero activity. Therefore the relationship will be of relatively low fixed cost and high variable cost per unit **(1).** The narrow angle may also conclude that profit margins are lower. **(1)**

(5 Marks)

(b) Break even = $\frac{\text{Fixed Cost}}{\text{Contribution}} = \frac{£60\,000}{£12 - £8} = \frac{£60\,000}{£4}$ **(1)** **(1)** = 15 000 Units **(1)**

Projected Profit = 18 000 units - 15 000 units = 3 000 units x £4 = £12 000.
(1) **(1)** **(1)**

(6 Marks)

(c)

i) £10.50 - £8 = £2.50 Additional Contribution Per Unit x 2 000 =Up by £5 000 **(1)**
Total Profit £12 000 + £5 000 = £17 000 **(1)**
Break even point. No change **(1)**

ii) 18 000 units - 12 727 units = 5 273 units x £5.50 = £29 000 **(1)** up by £17 000 **(1)**

Break even = $\frac{£70\,000}{£12 - £6.50} = \frac{£70\,000}{£5.50}$ = 12 727 units **(1)** reduced by 2 273 **(1)**

iii) 19 000 units x £5 = £95 000 - £60 000 = £35 000 **(1)** Up £23 000 **(1)**

Break even = $\frac{£60\,000}{£12 - £7.00} = \frac{£60\,000}{£5}$ = 12 000 units Down 3 000 units **(1)**

iv) 10 000 units x £4 + 11 000 units x £2.50 = £67 500 - £60 000 = £7 500 **(1)**
Down £4 500 **(1)**

Break even = $\frac{£60\,000}{10\,000 \times (£12 - £8) + 8000 \times (£12 - £9.50)}$ = 18 000 units **(1)**

Up 3 000 units **(1)**

(14 Marks)

(Total 25 Marks)

Question 3

(a)

Manufacturing and Trading Account for the Month Ended 30 April 2003 **(1)**

	Junior £		Senior £	Total £	
Opening stock of raw materials	-		-	1 125	
Purchases of raw materials	-		-	4 625	**(1)**
	-		-	5 750	
Closing stock of raw materials	-		-	2 085	**(3)**
	1 300		2 365	3 865	
Direct labour	4 000		7 350	11 350	**(3)**
PRIME COST **(1)**	5 300		9 715	15 015	
Production Overheads					
Rent & rates	1 000		1 000	2 000	
Light, heat & power	640	**(1)**	1 120	1 760	
Production Managers Salaries	750	**(1)**	1 100	1 850	
Depreciation	250		750	1 000	
	7 940		13 685	21 625	
Work In Progress					
At start 1 May 2002	-		4 000	4 000	
At end 30 April 2003	(480)	-		(480)	
PRODUCTION COST **(1)**	7 460		17 685	25 145	**(1)OF**
Sales	9 600	**(1)**	19 800	29 400	
Cost of Production	7 460		17 685	25 145	
GROSS PROFIT	2 140	**(1)OF**	2 115	4 255	

(15 Marks)

(b) Apportionment - Following allocation overheads which cannot be allocated **(1)** are apportioned between the cost centres **(1)** using a basis which is fair **(1)** e.g **(1)** rent on the floor area occupied by the respective departments.

Rent and rates would appropriately be apportioned in relation to floor area occupied **(1)**. As the production of the Senior model involves more workers/takes more time and therefore occupies more space, it would be appropriate to apportion on the basis of production achieved or hours worked with the Senior model being apportioned a greater share of the overhead **(1).** It would therefore seem that a disproportionate amount of the overhead is being borne by Junior.**(1).**

(**MAX 6 Marks)**

(c) Advantages- Probable increase in production and productivity.
Less supervision required

Disadvantages- Maintaining quality
Staff feel that time is their own. Possible higher levels of absenteeism.
Possible increase in accident levels.

(4 x 1 Mark Per Point)

(Total 25 Marks)

Section B

Question 4

(a)

Leisure Centre Contract Account

		£000		£000
Raw Materials	520		Cost - c/d	990
less Returns	30			
less Materials On Site	70			
		420 **(1)**		
Direct wages	115			
plus Accrued Wages	5			
		120 **(1)**		
Other Direct Exp		50		
Plant	150			
less	125			
		25 **(1)**		
Site Management Sal	80			
less HO Overheads	10			
		70 **(1)**		
Scaffold Hire		150		
Overheads	35			
plus	120			
		155**(1)**		
		990		990
Cost -b/d		990	Work Certified	1 300 **(1)**
			Work Uncertified	100 **(1)**
Profit - P/L Ac		210 **(3)OF**		
Retained		200 **(1)OF**		
		1 400		1 400

Workings - $\frac{2}{3}$ x $\frac{410}{1}$ **(1)OF** x $\frac{1\,000}{1\,300}$ **(1)** = 210 **OF**

(11 Marks)

(b)

Balance Sheet (Extract) as at 30 April 2003

		£000
Fixed Assets		
Plant	150 less 25 =	125 **(1)**
Plus		
Current Assets		
Raw Materials		70
WIP - Not Certified		100
Debtors		300
Prepaid Salaries		10
Less		
Current Liabilities		
Wages Accrued		5
Financed By:		
Capital		
Reserves - Retained Profit		200 **(1)OF**

1 Mark for 1 to 3 items correct
2 Marks for 4 or 5 items correct

(4 Marks)

(Total 15 Marks)

Question 5

(a)

	Cash Flow £	10% Factor	£	
Year 0	300 000	1.000	(300 000)	
Year 1	50 000	0.909	45 450	**1 Mark for each**
Year 2	80 000	0.826	66 080	**two rows correct**
Year 3	90 000	0.751	67 590	
Year 4	140 000	0.683	95 620	
Year 4	40 000	0.683	27 320	
			2 060	

(3 Marks)

(b) Weighted Average Cost of Capital

	£		£
Ordinary shares	40 000	11%	4 400
Preference Shares	80 000	5%	4 000
Debentures	80 000	7%	5 600
	200 000		14 000

WACC $\frac{£14\,000}{£200\,000} \times 100 =$ 7% **(3)**

(3 Marks)

(c)

The weighted average cost of capital represents the average return expected or committed to those providing the long term finance of the company.**(1)** It will take into account the fixed or maximum commitments to debenture and preference share holders.**(1)** It will also take into account the expected returns of ordinary shareholders which can vary from time to time.**(1)**

The internal rate of return is the 'hurdle' rate that must be achieved by all projects to be considered for investment. **(1)** The internal rate of return will be set after considering the WACC **(1)** and the alternative cost of borrowing from the open market **(1)** and the risk level of the project or business **(1).**

(Max 4 Marks)

(d) The management should as far as possible minimise the cost of borrowing by:

1. Consider issuing more preference shares **(1).** This is the lowest cost of borrowing. **(1).** This will lower the gearing of the company if sufficient preference borrowers can be found. **(1)**
2. Borrow from the bank **(1).** This will not affect the WACC. **(1)**

(5 Marks)

(Total 15 Marks)

Question 6

(a)
Allocation of overheads occurs where an overhead can be specifically identified as being attributable to a specific department. **(1)**

Apportionment occurs where overheads are attributable to a number of departments **(1)** and therefore must be apportioned to those departments on the most reasonable basis available **(1)**

(3 Marks)

(b)

	Machining	Assembly	Finishing	Admin	Canteen
	£000	£000	£000	£000	£000
Overheads	85	34	13	80	52
Allotment	32	24	16	-	8 **(1)**
	24	12	18	6	(60)
	2	2	1	(6)	1 **(1)**
	1	-	-		(1)
	144	72	48		
	(1)	**(1)**	**(1)**		

(5 Marks)

(c)

Budgeted Overhead Recovery Rate

Machinery	Assembly	Finishing
£144000 **OF**	£72000 **OF**	£48000 **OF**
12000 Hrs	8000 Hrs	6000 Hrs
= £12 per hour	= £9 per hour	= £8 per hour
(1)OF	**(1)OF**	**(1)OF**

Budgeted Overhead On Actual Hours

Machinery	Assembly	Finishing
11 500 x £12**OF**=	7 500 x £9**OF**=	6 500 x £8=**OF**
£138 000	£67 500	£52 000
(1)OF	**(1)OF**	**(1)OF**

Actual Overhead Cost

£143 000	£70 000	£47 500

(Under)/Over Absorbed Overhead

(£5 000)	(£2 500)	£4 500

Total Under absorbed Overhead (£3 000) **(1)OF**

(7 Marks)

(Total 15 Marks)

Section C

Question 7

(a)

The aspects that can be isolated are price **(1)** and usage **(1).**

Price variance is calculated - (Std Price - Act Price) x Act Usage **(1)**

Usage variance is calculated - (Std Qty - Act Qty) x Std Price **(1)**

(4 Marks)

(b)

Possible factors;

Specification of quantity and quality of materials;
Forecast movements in prices;
Availability of bulk purchases;
Current wastage percentages;
Training and skill level of staff and its impact upon wastage;
Ideal or optimum standards set.

Or any other valid point.

(1) Mark for identification and (1) Mark for development x 4 Points

(8 Marks)

(c)

Possible advantages;

Aid to accurate budgeting;
'Yardstick' to measuring actual costs;
Target level of efficiency;
Cost consciousness;
'Management by exception' from variances;
Standard costs aid estimating;
Standards aid production scheduling;
Motivation of staff.

Or any other valid point.

(1) Mark for identification and (1) Mark for development x 4 Points

(8 Marks)

(Total 20 Marks)

Question 8

(a) Characteristics;
Generally continuous operation;
Generally high volume of low cost items;
Often a loss in process;
May also be a by-product;
Not possible to identify separate units of production until completion.

(1) Mark for identification of characteristic + (1) Mark for development + (1) Mark for example. X 2

(6 Marks)

(b) Equivalent production;
Production in terms of completed units; **(1)**
Units assessed to identify inputs, completions, wastage and closing stock; **(2)**
Value of opening stock from previous period plus value of inputs; **(1)**
Cost per equivalent unit established; **(1)**
Monetary valuation of completed units and closing work in progress established; **(2)**
Separate assessments made for material, labour and overheads as well as in total; **(1)**

(8 Marks)

(c) Normal loss unavoidable in the normal course of production e.g evaporation; **(1)**
Abnormal loss results from error in production e.g carelessness, accidents; **(1)**

Normal losses anticipated **(1)** and therefore the loss costed into the product **(1);**
Abnormal losses not anticipated, therefore require valuation to be written off as a loss in the profit and loss account **(2)**

(6 Marks)

(Total 20 Marks)