

Question 8

(a)

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(i) Overhead	Basis	Total	Production		Service	
			Dept 1	Dept 2	Dept X	Dept Y
Dep of equipment	[1] Book value	20,000	5,000 [1]	7,500 [1]	4,500 [1]	3,000 [1]
Dep of buildings	[1] Floor area	24,000	9,600 [1]	7,200 [1]	4,800 [1]	2,400 [1]
Factory heating	[1] Volume	8,000	2,000 [1]	4,000 [1]	1,200 [1]	800 [1]
Factory cleaning	[1] Floor area	4,000	1,600 [1]	1,200 [1]	800 [1]	400 [1]
Canteen	[1] No.Employees	5,400	2,100 [1]	1,500 [1]	1,050 [1]	750 [1]
		<u>61,400</u>	<u>20,300</u> [1]	<u>21,400</u> [1]	<u>12,350</u> [1]	<u>7,350</u> [1]

(ii)	Production		Service	
	Dept 1	Dept 2	Dept X	Dept Y
Total Cost	20,300	21,400	12,350	7,350
Apportion Dept X to Production	9,880 [2]	2,470 [2]	(12,350)	
Apportion Dept Y to Production	5,880 [2]	1,470 [2]		(7,350)
	<u>36,060</u>	<u>25,340</u>		

(iii)	Machine hour absorption rate	
Dept 1	$\frac{36,060}{4,000}$	= €9.015 per machine hour [4]
Dept 2	$\frac{25,340}{1,000}$	= €25.34 per machine hour [4]

(iv) [5] Service departments can't recover costs. Service departments are secondary to production departments and as a result, service department costs must be transferred to production departments on an equitable basis e.g. machine hours. Overheads can only be recovered through production i.e. they are included as a cost of production.

(b)

(i)

Production overheads	Units	Total Cost €
High	18,000	113,400
Low	<u>12,000</u>	<u>79,200</u>
Difference	<u>6,000</u>	<u>34,200</u>

The variable cost of 6,000 units is 34,200, therefore the variable cost per unit is €5.70 [4]

Total production overhead cost	79,200	102,000	113,400
Less variable costs	<u>(68,400)</u>	<u>(91,200)</u>	<u>(102,600)</u>
Therefore, Fixed cost	<u>10,800</u>	<u>10,800</u>	<u>10,800</u> [4]

(ii)

Flexible Budget in Marginal Costing format

Sales		€	€
			834,500 [1]
Less: Variable Costs			
Direct Materials (19,000 x 13)		247,000 [2]	
Direct Labour (19,000 x 9)		171,000 [2]	
Production overheads (19,000 x 5.70)		108,300 [1]	
Other overhead costs (19,000 x 5.10)		<u>96,900 [1]</u>	<u>(623,200)</u>
Contribution			211,300 [4]
Less Fixed Costs			
Production overheads		10,800 [1]	
Other overheads		3,600 [1]	
Administration		<u>30,000 [1]</u>	<u>(44,400)</u>
Profit			<u>166,900 [2]</u>

Total cost is 80% of sales.

Total cost is 623,200 + 44,400 = 667,600

80% of sales = 667,600

100% = 834,500

(iii) [6]

Controllable Costs: Are costs that can be controlled by the manager of a cost centre. She/he will make the decision about the amount of the cost or if the cost should be incurred and can be held responsible for variances in these costs. E.g.- all variable costs are controllable. Commission to sales personnel can be controlled by the sales manager.

Uncontrollable Costs: Are costs over which the manager of a cost centre has no control and therefore cannot be held responsible for variances in these costs. E.g.- rates to the local authority are uncontrollable.