

Question 8

(a)

50

| (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 | <u>5,880</u> [2] | <u>1,470</u> [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.