8. **Marginal and Absorption Costing** **(80)**

(a) **Overhead Apportionment**

(i) Overhead to be absorbed by each Department stating clearly the basis of apportionment used (29)

Overhead	Basis		Total	Dept. A	Dept. B	Dept. 1	Dept. 2
Dep. of equipment	Book value	**(1)**	24,000	11,250 **(1)**	3,750 **(1)**	3,000 **(1)**	6,000 **(1)**
Dep. of factory buildings	Floor area	**(1)**	36,000	18,000 **(1)**	4,500 **(1)**	9,000 **(1)**	4,500 **(1)**
Factory heating	Volume	**(1)**	8,400	2,100 **(1)**	4,200 **(1)**	840 **(1)**	1,260 **(1)**
Factory cleaning	Floor area	**(1)**	3,200	1,600 **(1)**	400 **(1)**	800 **(1)**	400 **(1)**
Factory canteen	No. of employees **(1)**		12,600	5,040 **(1)**	4,320 **(1)**	1,080 **(1)**	2,160 **(1)**
			84,200	37,990 **(1)**	17,170 **(1)**	14,720 **(1)**	14,320 **(1)**

* Accept correct figures only.

(ii) Transfer of Service Departments costs to Production Departments A and B
on the basis of machine hours (8)

Overhead Basis	Dept. A	Dept. B	Dept. 1	Dept. 2
Total Cost	37,990	17,170	14,720	14,320
Apportion Dept. 1 to Production Depts. A and B	*8,832 **(2)**	5,888 **(2)**	(14,720)	
Apportion Dept. 2 to Production Depts. A and B	*8,592 **(2)**	5,728 **(2)**		(14,320)
	55,414	28,728	—	—

* Allow marks for student's own figures if consistent with previous work but must split in ratio 3:2.

(iii) Machine hour overhead absorption rates for Departments A and B (8)

Dept. A: Machine hour overhead absorption rate

$$= \frac{**55{,}414 \; (2)}{*6{,}000 \; (1)}$$

$$= *€9.24 \text{ per machine hour } (1)$$

Dept. B: Machine hour overhead absorption rate

$$= \frac{**28{,}786 \; (2)}{*4{,}000 \; (1)}$$

$$= *€7.20 \text{ per machine hour } (1)$$

* Accept correct figures only.
** Allow marks for student's own figures if consistent with previous work.

(iv) Explain what is meant by 're-apportionment' of overheads **(2 × 2)** (4)

– where Service Department costs are re-apportioned between production departments
– because overheads can only be recovered by being included as part of the cost of production

(v) Under-absorption of overheads (4)

Explanation **(2)**
– when costs are under recovered - budgeted costs are less than actual costs

Example
Any 2: **(2 × 1)**
– cost of fuel / power rises //
– depreciation //
– cost of cleaning / canteen increases // *etc*.

** Accept other appropriate answers.

(b) **Stock Valuation**

(i)   Value of closing stock using the 'First in/First out' (FIFO) method   (13)

Purchases in Units		Cost Price		Purchases at Cost
6,800	@	€5.00	=	34,000
4,300	@	€6.00	=	25,800
5,900	@	€7.00	=	41,300
7,200	@	€8.00	=	57,600
24,200				158,700

Sales in Units		Selling Price		Sales Value
1,200	@	€10.00	=	12,000
2,600	@	€9.00	=	23,400
1,400	@	€11.00	=	15,400
3,100	@	€10.00	=	31,000
900	@	€11.00	=	9,900
2,600	@	€10.00	=	26,000
800	@	€12.00	=	9,600
1,600	@	€11.00	=	17,600
14,200				144,900

Closing Stock in units

Opening Stock	4,100 **(1)**
+ Purchases	24,200 **(2)**
	28,300
– Sales	(14,200)**(2)**
Closing Stock (units)	14,100

Closing Stock in €

7,200 units (1) @ €8.00 (1)	57,800 **(2)**
5,900 units (1) @ €7.00 (1)	41,300 **(2)**
1,000 units (1) @ €6.00 (1)	6,000 **(2)**
	*104,900 **(2)**

*   Accept correct figure only.

(ii)   **Trading Account for the year ending 31/12/2011**   (14)

	€	€
Sales		*144,900 **(3)**
Less Cost of Sales		
Opening Stock (4,100 units × €5.00)	**20,500 **(2)**	
Purchases	*158,700 **(3)**	
	179,200	
Less Closing Stock	*(104,900)**(2)**	(74,300)
Gross Profit		*70,600 **(4)**

*   Allow marks for student's own figures if consistent with previous work.
** Accept correct figure only.