Question 8

80

			€	€ per unit)
(A)	Sales		720,000	12.00
	Less Variable Costs			
	Direct materials	288,000		
	Direct labour	144,000		
	Factory overheads (40%)	20,400		
	Sales commission (5% x 720,000)	36,000	(488,400)	8.14
	Contribution		231,600	**3.86**
	Less Fixed costs			
	Factory overheads (60%)	30,600		
	Administration expenses	96,000		
	Selling expenses (excluding commission)	32,000	158,600	
	Net Profit		73,000	

(a) **Break even point** = $\frac{\text{Fixed Costs}}{\text{CPU}}$ = $\frac{158{,}600 \ (3)}{3.86 \ (4)}$ = (3) 41,089 units

Margin of safety = Sales – break even point

= (4) 60,000 – 41089 (3) = (3) 18,911 units

(b) $\frac{\textbf{Fixed costs}}{\textbf{Contribution – 10\% of S.P.}}$ $\frac{158{,}600 \ (4)}{(6)\ 4.81 - 1.3 \ (6)}$ = (4) 45,186 units

(c) **Profit if selling price dropped to €11**

Sales	(80,000 x 11)	880,000	(4)
Less variable costs	(80,000 x 8.09)	647,200	(6)
Contribution		232,800	
Less fixed costs	(158,600 + 10,000)	168,600	(6)
Profit		41,200	(2)

Question 8– continued

(B)

(a) **Absorption Costing**

		€	€
Sales (6,000 x €6)			36,000 (1)
Less production cost of 8,000 units			
Direct materials	(8,000 x 0.50)	4,000 (1)	
Direct labour	(8,000 x 0.80)	6,400 (1)	
Variable overhead	(8,000 x 0.50)	4,000 (1)	
Fixed overhead		3,000 (1)	
		17,400	
Less closing stock (1/4 of 17,400)		(4,350) (1)	(13,050)
Profit			22,950

Marginal costing

		€	€
Sales			36,000 (1)
Less production costs			
Direct materials		4,000 (1)	
Direct labour		6,400 (1)	
Variable overhead		4,000 (1)	
		14,400	
Less closing stock (1/4 of 14,400)		(3,600)	(10,800)
Contribution	(1)		25,200
Less fixed cost			(3,000) (1)
Profit			22,200

(b) (5)

There is a different profit figure because closing stock is valued differently.
Marginal costing does **not** include fixed costs when costing a product whereas absorption costing does include the fixed costs.
Therefore closing stock under marginal costing is valued lower than under absorption costing because a share of fixed costs is included in the value of stock under absorption costing but not included under marginal costing.

Under absorption costing, closing stock is valued at a ¼ of the production cost of 17,400
Under marginal costing, closing stock is valued at ¼ of the production cost of 14,400.

Closing stock -Absorption costing	4,350
Closing stock - Marginal costing	(3,600)
Difference	750

The profit difference is 22,950 – 22,200 = 750

Absorption costing should be used as it agrees with standard accounting practice and concepts and matches costs with revenues. (5)