8. **Marginal and Absorption Costing**

(a) Whelan Ltd, produces a single product. The company's profit and loss account for the year ended 31/12/2019, during which 26,000 units were produced and sold, was as follows:

	€	€
Sales (26,000 units)		1,040,000
Materials	221,000	
Direct labour	364,000	
Factory overheads	166,000	
Administration expenses	115,500	
Selling expenses	87,900	954,400
Net profit		85,600

The materials and direct labour are variable costs.

Apart from a sales commission of 6% of sales, selling and administration expenses are fixed.

Factory overheads are mixed costs, and have behaved in the past as follows:

Year ended	Production (units)	Factory Overheads in €
31/12/2018	21,000	148,500
31/12/2017	16,400	132,400
31/12/2016	13,800	123,300

Required:

(i)   Calculate the variable and fixed elements of factory overheads using the high/low method.

(ii) Calculate the break–even point and margin of safety for Whelan Ltd.

(iii) Calculate the number of units that must be sold at €45 per unit to provide a profit of 15% of the sales revenue earned from these same units.

(iv) Calculate the profit Whelan Ltd would make if it reduced its selling price by 5%, increased fixed costs by 4% and increased the sales commission percentage to 7% and thereby increasing the number of units sold by 20%, with all other cost levels and percentages remaining unchanged.

(v)   Explain what is meant by a step fixed cost and give an example.

(b) Aldridge Ltd, produced 15,000 units of product A during the year ended 31/12/2019. 12,000 of these units were sold at €4.20 per unit. The production costs were as follows:

Direct materials	€0.70 per unit
Direct labour	€0.60 per unit
Variable overheads	€0.55 per unit
Fixed overhead costs per year	€8,400

Required:

(i)   Prepare profit and loss statements under marginal costing and absorption costing principles for Aldridge Ltd.

(ii)   Outline the differences between marginal and absorption costing.

         Indicate which method should be used for financial accounting purposes. Explain your answer.

(80 marks)