9. Flexible Budgeting

Henry Ltd manufactures a component for the medical industry. The following flexible budgets have already been prepared for 55%, 75% and 95% of the plant's capacity:

Output levels	**55%**	**75%**	**95%**
Units	27,500	37,500	47,500
Costs	**€**	**€**	**€**
Direct materials	151,250	206,250	261,250
Direct wages	184,250	251,250	318,250
Production overheads	129,000	173,000	217,000
Other overhead costs	150,875	203,375	255,875
Administration overheads	38,500	38,500	38,500
	653,875	872,375	1,090,875

Profit is budgeted to be 20% of sales. All units produced are sold.

(a) Required:

(i) Separate production overheads into fixed and variable elements.

(ii) Separate other overhead costs into fixed and variable elements.

(iii) Prepare a flexible budget for 90% activity level using marginal costing principles, and show the contribution.

(b) Henry Ltd is currently operating at 100% capacity and is considering two options as follows:

Option 1

Modernisation of machinery.
This will involve employing one new production supervisor at a cost of €40,000. This will save €1.40 per unit in the production overheads.

Option 2

Purchase of machinery which would increase the plant's capacity by 15% while reducing all fixed overheads (including administration) by 5%.

Required:

(i) Prepare flexible budgets, using marginal costing principles and showing contributions, for both options taking the new cost structures into account.

(ii) Advise the company on the best option.

(c) Required:

(i) What is meant by the term sensitivity analysis?

(ii) Outline why Henry Ltd would prepare a flexible budget.

(80 marks)