

4 P Limited is a manufacturing business.

REQUIRED

(a) Define the following terms:

(i) Direct costs

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..... [1]

(ii) Stepped costs

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..... [2]

(b) State the formula for finding the margin of safety in units.

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..... [1]

(c) Explain the term 'limiting factor' when using marginal costing.

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..... [2]

Additional information

P Limited manufactures a single product. The factory has the capacity to make 40 000 units per month. All production is sold.

The following budgeted information is available for December 2021.

Sales	30 000 units at \$48 per unit
Direct materials per unit	4.5 m at \$4 per metre
Direct labour per unit	3 hours at \$8.50 per labour hour
Fixed costs	\$112 000

The company has a target profit of \$40 000 per month.

REQUIRED

- (d) Calculate the number of units to be sold for the company to achieve its target profit for December 2021.

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- [illegible]

The directors have been told that demand for their product is likely to fall in future months. They are considering two proposals: Proposal A and Proposal B.

Produce a superior version of the product.

Sales	27 000 units per month at \$57 per unit.
Direct materials	The same quantity of material per unit as currently used, but the price per metre would increase by 7.5%.
Direct labour	The rate would increase to \$9.25 per hour and each unit would take 3.4 hours to make.
Additional fixed costs	<p>Extra machinery costing \$75 000 will be required. Machinery is depreciated at 20% per annum using the straight-line method.</p> <p>A loan would be required to finance the full cost of the machinery. Interest rates are currently 8% per annum.</p>

REQUIRED

(f) Calculate the monthly profit to be made from proposal A.

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Additional information

Proposal B

The directors are also considering a proposal to produce a simpler version of the product with a selling price of \$37 per unit. This proposal would require 76 000 labour hours per month. They estimate that 38 000 units per month could be sold.

This will produce a monthly profit of \$49 500.

REQUIRED

- (g)** Advise the directors which proposal they should choose. Justify your choice by considering **both** financial and non-financial factors.

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