

- 4 N Limited manufactures a single product at one of its factories. The company uses marginal costing.

REQUIRED

(a) State **two** benefits of using break-even analysis.

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(b) Define the term 'fixed costs'.

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..... [2]

Additional information

The following details are available for one month's production:

| | |
|------------------------|-------------|
| Fixed costs | \$70 000 |
| Break-even point | 8 000 units |
| Selling price per unit | \$20 |
| Margin of safety | \$80 000 |

REQUIRED

(c) Calculate the variable cost per unit.

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Additional information

The directors have decided to increase output by 20%. All the output can be sold.

New machinery will be purchased at a cost of \$72 000. The new machinery will have a useful life of 5 years. The directors also plan the following:

- 1 Variable costs will remain unchanged.
- 2 Selling prices will be reduced by 5% to ensure that all production can be sold.
- 3 The cost of the new machinery will be financed by the issue of 10% debentures.

REQUIRED

- (d) (i)** Calculate the monthly revenue based on this plan.

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- (ii) Prepare a budgeted marginal costing statement for one month based on this plan for total production.

[6]

Additional information

At another factory the company manufactures two products: X and Y. Both products use the same material.

The following information is available for one month's output.

| | X | Y |
|--------------------------|------------|------------|
| | \$ | \$ |
| Selling price per unit | 32 | 44 |
| Direct material per unit | 10 | 14 |
| Direct labour per unit | 12 | 19 |
| Output | 5000 units | 4000 units |

This factory's fixed costs are \$58 000 per month.

In April 2022 the supplier of direct materials informed the company that it would only be able to supply 75% of the normal monthly requirement in June 2022.

REQUIRED

- (e) Prepare a budgeted production plan for June 2022 to show the maximum profit available.

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Additional information

A director has suggested an alternative plan that the factory should produce extra units in May 2022 to make up for the shortfall of either Product X or Product Y in June 2022. Any additional production will require overtime to be worked.

The following information is available:

- 1 All material requirements can be met in May 2022 but the material has to be converted into finished product immediately as purchased.
- 2 Overtime is paid at 1.5 times the normal rate.
- 3 The extra units will be stored at a cost of \$4000.

REQUIRED

- (f) Calculate the profit or loss to be made on the extra units if this plan is implemented in May 2022.

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- [5]