

91408



NEW ZEALAND QUALIFICATIONS AUTHORITY
MANA TOHU MĀTAURANGA O AOTEAROA

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Level 3 Accounting, 2014

91408 Demonstrate understanding of management accounting to inform decision-making

9.30 am Friday 21 November 2014
Credits: Four

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate understanding of management accounting to inform decision-making.	Demonstrate in-depth understanding of management accounting to inform decision-making.	Demonstrate comprehensive understanding of management accounting to inform decision-making.

Check that the National Student Number (NSN) on your admission slip is the same as the number at the top of this page.

Pull out Resource Booklet 91408R from the centre of this booklet.

You should attempt ALL parts of all questions in this booklet.

If you need more room for any answer, use the extra space provided at the back of this booklet.

Check that this booklet has pages 2–11 in the correct order and that none of these pages is blank.

YOU MUST HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.

Merit

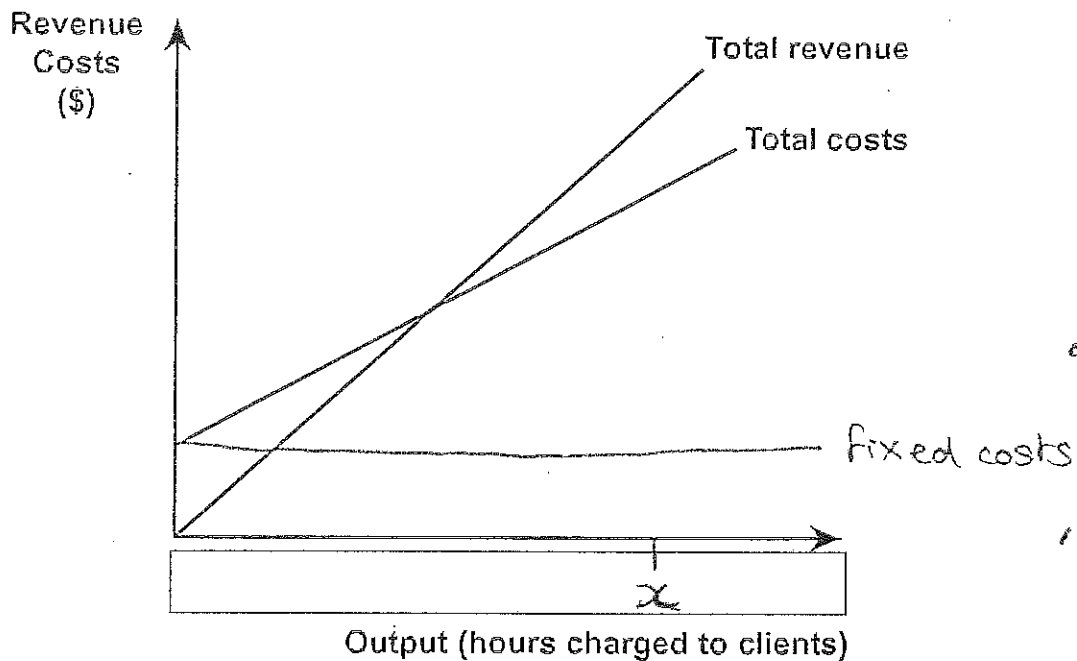
TOTAL

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QUESTION ONE

information from Resource Booklet 91408R and the diagram below to answer this question.



- (a) (i) On the diagram above, show and label fixed costs. You are not required to calculate a dollar value of fixed costs.
- (ii) Use the diagram to explain the link between relevant range and fixed costs for MMM Ltd.

The relevant range is the maximum level of production for MMM Ltd given the existing resources available. If MMM Ltd's relevant range of 10 cars at a time is exceeded, fixed costs will not remain the same and will increase which will also increase the y intercept of total costs. Fixed costs are

- (b) On the diagram above, within the box provided, label a point X on the Output axis which shows a positive margin of safety. Use your placement of the point X to explain the concept of margin of safety.

The margin of safety is the difference between MMM Ltd's existing sales and sales required to break-even. At the break even point total costs is equivalent to total revenue and MMM Ltd is not operating at a profit or

be paid who that the business operates for not

a loss. The break-even point on the graph is the intersection point between total costs and total revenue. Since point x is at an output higher than the output required to breakeven, margin of safety will be positive as existing sales is exceeding break-even sales. M →

Note: You must provide detailed and labelled workings for all your calculations. Labelled workings will be assessed. You may be required to round any calculation to the nearest whole number.

- (c) (i) Calculate the contribution margin per hour for MMM Ltd.

$$\begin{aligned} \text{selling price per hour} &= \$60 \\ \text{variable costs} &= 0.1 \times 60 \\ &= \$6 \text{ (power, fuel, oil, consumables 10\% of fees)} \\ \text{contribution margin} &= \text{selling price} - \text{variable costs per hour} \\ &= 60 - 6 = \$54 \\ \text{Contribution margin per hour} & \underline{\$54} \end{aligned}$$

- (ii) Calculate the break-even point in hours chargeable per year for MMM Ltd.

$$\begin{aligned} \text{break-even} &= \frac{\text{fixed costs (annual)}}{\text{contribution margin}} \\ \text{fixed costs} &= \left. \begin{aligned} &\text{workshop rental } (1380 \times 12) \\ &+ \text{communications } (260 \times 12) \\ &+ \text{subscription to MTA } (840) \\ &+ \text{depreciation } (200) \\ &+ \text{office wages } (17.5 \times 40 \times 12) \\ &+ \text{warrant of fitness } (850) \end{aligned} \right\} = \$29970 \\ \text{Break-even in hours chargeable per year} & \underline{555 \text{ hours}} \end{aligned}$$

$$\text{break-even} = \frac{29970}{54} = 555 \text{ hours}$$

- (d) Use your calculations to explain the concept of break-even point for MMM Ltd.

MMM Ltd has a break-even point of 555 hours of repairing cars. This means when MMM Ltd has completed 555 hours of repairs, ~~the~~ total ~~costs~~ costs is equal to total revenue which means MMM Ltd is not operating at a profit or a loss at 555 hours of repairs.

- (e) Mack is considering purchasing his own diagnostic scanner for the workshop, costing \$7 000. This is a machine that can be connected to a motor and will generate a readout about how the motor is working. Justify whether the purchase of the diagnostic scanner is a routine or strategic decision for MMM Ltd.

A routine decision is a decision which must be made by Mack or managers of MMM Ltd on a regular basis usually daily or weekly. Routine decisions affect MMM Ltd in the short-term. Strategic decisions are big decisions which usually include significant capital expenditure and require board or CEO approval. Strategic decisions are usually one-off decisions which have an impact on MMM Ltd in the long-term. The purchase of the diagnostic scanner would be a strategic decision for MMM Ltd because it involves significant capital expenditure of \$7000 which creates the diagnostic scanner asset. The decision would require Mack's approval and will have a long-term impact on MMM Ltd because it will increase diagnosis's efficiency of the business beyond the current accounting period. Therefore the purchase of the diagnostic scanner would be a strategic decision.

QUESTION TWO

Use information from Resource Booklet 91408R to answer this question.

- (a) Complete the cash budget below for *MMM Ltd* showing the receipts and payments for June, July, and August 2014. Assume each month has four weeks.

Mack's Mechanical Maintenance Limited
Cash Budget

	June	July	August
Receipts			
Repair fees received	9000	9000	9000 6750 Ccc
Transfer from personal bank account	4444 1160	310	256 2335 Ccc
TOTAL RECEIPTS	10160	9310	9510 9085
Less payments			
Workshop rental	1380	1380	1380 ✓
Communications	260	260	260 ✓
Subscription to MTA	70	70	70 ✓✓✓
Office wages	700	700	700 ✓✓✓
Annual warrant of Fitness / license	850	—	— ✓
Variable expenses	900	900	900 675 Ccc
Drawings	6000	6000	6000
TOTAL PAYMENTS	(10160)	(9310)	(9085)
Surplus (deficit) of cash	0 0	0	0
Opening bank balance	(10000)	(10000)	(10000)
Closing bank balance	(10000)	(10000)	(10000)

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- (b) Mack has been working hard to make *MMM Ltd* successful. He is aware of how important the cash budget is to his business, and he is concerned about what it is showing/forecasting. Justify the importance of the cash budget in (a) to the success of *MMM Ltd*.

Include in your answer:

- an explanation of the purpose of Mack preparing a cash budget for *MMM Ltd*
- an explanation of a business strategy consistent with the information in the resource booklet that Mack could use to improve the cash position of *MMM Ltd*
- a clear link to the impact the strategy will have on *MMM Ltd's* cash budget.

The purpose of Mack preparing a cash budget for *MMM Ltd* is to show estimated cash receipts less estimated cash payments and use the opening bank balance to determine the estimated closing bank balance. Cash budgets are useful in estimating cash flow, determining whether additional financing is required, ^{determining} whether there is sufficient cash flow in *MMM Ltd* to fund the capital expenditure required to make a strategic decision. Cash budgets can also be compared to *MMM Ltd's* actual performance to identify sources of overspending or other variances from the budget. Also comparing actual results to the cash budget can enable Mack to adjust estimations to improve accuracy of future cash budgets. To improve the cash position of *MMM Ltd*, Mack could take out a loan in order to finance the cash flow issues. Taking out a loan ~~amount~~ of ~~around~~ ~~more than~~ \$14000 will enable *MMM Ltd* to get rid of the bank overdraft and not enter overdraft ~~for the first~~ during June, July or August. This means that Mack will no longer have to transfer cash from his personal bank account and can pay the interest on loan with business cash and if enough cash surplus is available maybe expand h

QUESTION THREE

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Use information from Resource Booklet 91408R and your answers to Question One and Question Two to answer this question.

If Mack hires an apprentice, *MMM Ltd* will have to pay him \$15 per hour for a 40-hour week. Initially, the apprentice will use Mack's tools so will not require additional cost with equipment, but there are training costs to consider as detailed in the extract below.

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Source: <https://mito.org.nz/getting-started/apprenticeships/cost-funding>

Mack feels that, as a good employer, he wants to cover all of the costs for the apprentice as he remembers how hard it was to survive financially when he was a young mechanic just starting out. This would mean that *MMM Ltd* would pay the \$1 140 per annum.

Recommend whether or not *MMM Ltd* should hire an apprentice.

In your answer, provide detailed and justified reasons for your recommendation, using both financial and non-financial information.

I believe *MMM Ltd* should hire an apprentice.

With an apprentice *MMM Ltd* will have one extra repair mechanic in the future. This will enable *MMM Ltd* to repair more cars in less time which would decrease the chance of losing sale opportunities due to the relevant range of 10 cars maximum capacity of the workshop. With the extra mechanic, more ~~sets~~ repair fees will be received due to the increase in productivity. This will increase the financial performance and profitability of *MMM Ltd*.

~~With just one mechanic, *MMM*~~
Currently *MMM Ltd* is earning consistent repair

fees which means the market demand for car repairs is strong. ~~✱~~ This means MMM Ltd is not maximising their market potential and by hiring an apprentice fixed costs will increase but more sales will be made and MMM Ltd will get closer to operating to its potential.

Mack has become very busy, and with the help of an extra apprentice, Mack can go home to his family more often without causing as much damage to MMM Ltd's performance as the apprentice can continue to generate revenue for MMA Ltd while Mack ~~✱~~ has more time to spend with his family.

N/F

The cash flow problems of bank overdrafts in ~~July~~ June, July, August is added to by having to fund \$1140 per annum training fee and the additional wages of hiring an apprentice, but can be easily fixed ~~✱~~ by taking out a loan which should help with the cash flow in the short-term and the long-term increase in performance due to an additional repair mechanic will help the long-term cash flow of MMM Ltd.

EXTRA
PAPER

At the moment MMM Ltd is not profitable enough and Mack is forced into funding with his personal bank account to prevent overdraft exceeding \$10000 and with the addition of an apprentice, performance will be increased.

Extra space if required.
Write the question number(s) if applicable.

QUESTION
NUMBER

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continued
and Mack is allowed to relax more with his family and MMM Ltd can reach its market potential. Long-term cash flow is also improved therefore I recommend the hiring of the apprentice for MMA Ltd. //

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