Achievement Standard 90225

External Exam – Credits: 4

<u>Analyse and interpret information and make recommendation(s) for a sole proprietor</u>

Content studied in Standard		
Content	**Reading - 'Accounting for NCEA Level 2 BOOK TWO**	**Revision Questions (Pages of NCEA Revision Guide) Pages 77– 91**
***Calculate* analysis measures selected from:**		
Measures of profitability Mark-up percentage Gross profit percentage Expenses percentages Net profit percentage Return on equity percentage Return on total assets percentage	Page 248 - 255	Work your way through the following Questions: Q1, Q2, Q3, Q4, Q6, Q7, Q8, Q9, Q11, Q13,Q14
Measures of liquidity Working capital Current ratio/working capital ratio Liquid ratio/quick asset ratio	Page 258 - 260	
Measures of financial stability Equity ratio	Page 263 - 265	
Measures of management effectiveness Inventory turnover Age of accounts receivable.	Page 268 -270	
***Interpret information* will include using the context to:** Explain the analysis ratios Explain possible reasons for trends Explain possible consequences of a continued trend Provide links between analysis measures and other information Provide links between analysis measures Validly comment on an entity's financial performance, and/or financial position, and/or cash flows, using comparative figures (including industry averages) and results of analysis Compare the financial and/or non-financial information relating to the business, or to two sole proprietor businesses.	Page 272 – 275	

Points to Note:

You will be provided with a formulae sheet:

Analysis Measures Formulae

Age of Accounts Receivable	$\dfrac{\text{Average Accounts Receivable}}{\text{Net Credit Sales} \times 1.125} \times 365$
Current Ratio	$\dfrac{\text{Current Assets}}{\text{Current Liabilities}}$
Equity Ratio	$\dfrac{\text{Equity}}{\text{Total Assets}}$
Expense percentage	$\dfrac{\text{Group of Expenses}}{\text{Net Sales}} \times 100$
Gross Profit percentage	$\dfrac{\text{Gross Profit}}{\text{Net Sales}} \times 100$
Inventory Turnover	$\dfrac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$
Liquid Ratio	$\dfrac{\text{Current Assets} - (\text{Inventory} + \text{Prepayments})}{\text{Current Liabilities} - \text{Secured Bank Overdraft}}$
Mark-up percentage	$\dfrac{\text{Gross Profit}}{\text{Cost of Goods Sold}} \times 100$
Net Profit percentage	$\dfrac{\text{Net Profit}}{\text{Net Sales}} \times 100$
Return on Average Owner's Equity percentage	$\dfrac{\text{Net Profit}}{\text{Average Owner's Equity}} \times 100$
Return on Total Assets percentage	$\dfrac{\text{Net Profit} + \text{Interest}}{\text{Average Total Assets}} \times 100$

MEASURES OF PROFITABILITY

Mark-up %	
Tells you	• **The amount that is added to the cost of the goods to get the selling price. A Mark-up % of 200% means that 200% is added to the cost price of goods to get the selling price.**
Will rise if	• Business sells proportionately more of higher mark-up items • Business has increased mark-up • Business has a got goods cheaper from supplier, while keeping the selling price the same
Will fall if	• Mark-up has been reduced (to increase sales) • Theft or loss of stock • Business sells proportionately more of lower mark-up items • Business has paid more for goods from supplier, while keeping the selling price the same
To improve	• Increase prices • Find a cheaper supplier while keeping selling prices the same • Sell goods with higher mark-up% *For Example: Find a cheaper supplier while keeping selling prices the same* (Recommendation) *which will increase the amount received per item increasing the Mark Up %* (Justifying Recommendation)
Gross Profit %	
Tells you	• **The proportion of sales that is gross profit. A Gross profit percentage of 50 % means that 50 cents in every dollar of sales is gross profit.**
Will rise if	• Business sells proportionately more of higher mark-up items • Business has increased mark-up • Business has a got goods cheaper from supplier, while keeping the selling price the same
Will fall if	• Mark-up is reduced • Theft of stock • Selling proportionately more lower mark-up items • Business has paid more for goods from supplier, while keeping the selling price the same
To improve	• Increase prices • Increase mark-up % • Find a cheaper supplier while keeping selling prices the same For Example: *Increase mark-up* % (Recommendation) *(meaning the business will be getting more on each good sold increasing the gross profit %)* Justifying Recommendation)
Expenses %	
Tells you	• **The proportion of sales $ used up by an expense category. A finance expense % of 15% means that for every dollar of sales 15 cents is finance costs**

Will rise if	• You spend more on expenses (relative to sales). You may have a bigger loan, so more interest, so a higher finance cost %.
Will fall if	• You spend less on an expense
To improve	• Manage expenses better, or reduce expenses. Name the expense or expense group that needs better control. • For Example: use a cheaper internet supplier – to reduce administration expense %. • Avoid saying firing staff. For Example: <ins>*To improve the Administration Expense % the business could change to a cheaper internet supplier*</ins> (Recommendation with a specific example) <ins>*which would decrease the administration expenses and decrease the Administration Expense %*</ins> (Justifying Recommendation)
Net Profit %	
Tells you	• **The proportion of each sales dollar that is net profit. Net profit % of 8% means that for every dollar of sales, 8 cents is net profit.**
Will rise if	• Gross profit % increases • Sales increases relative to expenses • Expense % falls (give specifics)
Will fall if	• Gross profit % decreases • Sales decreases relative to expenses • Expense % increases (give specifics)
To improve	• Increase mark-up% • Increase gross profit % • Reduce expenses% (give specifics) For Example: A good answer<ins>*: To improve the net profit % The Pizza Palace could stop delivering pizza*</ins> (Recommendation), <ins>*which would reduce their distribution costs and would improve their net profit %*</ins> (Justifying Recommendation)
Return on Equity %	
Tells you	• **The % return on average capital invested. A figure of 17% shows that the owner is getting 17 cents return on every dollar invested in the business.** • **This should be compared to other forms of investment (such as bank deposit, other businesses) to see how you are performing in relation to them business is worthwhile.**
Will rise if	• If net profit rises (see reasons from net profit %)
Will fall if	• If net profit falls (see reasons from net profit %)
To improve	• Increase net profit (give a specific reason) *For example: <ins>The Pizza Palace could increase their price of Pizza</ins>*

	while keeping the costs the same. (Recommendation)This would mean they get more per item, increasing the net profit % and improving the Return on Equity %. (Justifying Recommendation)
Return on Assets %	
Tells you	• **This measures how productive the assets used are at earning a profit for the business (shows the return on total assets).** • **A figure of 12% shows that the assets are returning 12 cents return on every dollar invested in the business.** • **This should be compared to other forms of investment (such as bank deposit, other businesses) and you want it as high as possible**
Will rise if	• If net profit rises (see reasons from net profit %)
Will fall if	• If net profit falls (see reasons from net profit %)
To improve	• Improve Net Profit by maintaining better control over expenses especially repairs & maintenance. • Sell idle (unused) or obsolete (old) non-current assets. *For example: The Pizza Palace could maintain their assets better so there were less repair costs.* (Recommendation)This would mean the expenses would decrease, increasing the net profit and improving the Return on Assets %. (Justifying Recommendation)

MEASURES OF LIQUIDITY

Working Capital **The dollars of current assets available to meet current liabilities** **(Current Assets – Current Liabilities)**	
Current Ratio	
Tells you	• **It shows the ability of a firm to meet its current debts as they fall due in the next accounting period** • **A ratio of greater than 1:1 indicates that the business should be able to meet their debts as they fall due in the next accounting period. A ratio of less than 1:1 indicates that a business may not be able to meet their debts as they fall due in the next accounting period.** • **A ratio of 2:1 shows that for every $1 of current liabilities the business has $2 of current assets.** • Ideally the Current Ratio should be higher than 1:1. However if it is to high it can be an issue Problems of a high current ratio: • High accounts receivable – problem of bad debts. • Too much inventory – may become obsolete (expired, out of fashion etc.). • Too much cash-better invested in term deposit to earn

	interest.
Will fall if	• Too much drawings • Purchase of PPE assets for cash • Repaying mortgage with cash
To improve	• Owner can invest more cash into business • Sell more goods, services for ***profit*** • Sell surplus property, plant and equipment for cash *For Example: The owner could invest cash into the business* (Recommendation) *which would increase the current asset bank (while current liabilities stay the same), and improve the current Ratio* (Justifying Recommendation).
Liquid Ratio	
Tells you	• **It shows the ability of a firm to meet its debts as they fall due in the next 4 – 6 weeks** • **A ratio of greater than 1:1 indicates that the business should be able to meet their debts as they fall due in the next 1-2 months. A ratio of less than 1:1 indicates that a business may not be able to meet their debts as they fall due in the next 1-2 months.** • **A ratio of 2:1 shows that for every $1 of liquid liabilities the business has $2 of liquid assets.**
Will fall if	• Too much drawings • Purchase of Non-Current asset for cash • Purchase of inventory on credit
To improve	• Owner can invest more cash into business • Sell more goods, services for profit • Sell surplus property, plant and equipment for cash For Example: *The owner could invest cash into the business* (Recommendation) *which would increase the liquid asset bank (while liquid liabilities stay the same), and improve the Liquid Ratio* (Justifying Recommendation).

Management Effectiveness

Inventory Turnover	
Tells you	Tells us how long ***on average inventory*** is in the store before it is sold and how many times the business sells its entire inventory ***on average*** per year. ***e.g. 12 times per year means that the business is selling on average its entire stock 12 times per year.*** Problems with slow turn over: • Money better invested elsewhere. • Higher insurance premiums • Store and warehousing cost • Greater risk of deterioration/obsolescence • (out of date) • Stock items stolen.
Will take longer (get worse if)	• Ordering too much stock at once • The re-order point is too high
To improve	• Review purchasing procedure so only purchasing enough to meet customer demand. • Make the re-order point less to prevent stock piling up • Have clearance sale to sell off obsolete stock. For Example: *The (business name) could make the re-order point less* (Recommendation) *so there would be less inventory building up and would therefore be sold quicker, increasing the average turnover of inventory* (Justifying Recommendation).
Age of Accounts Receivable	
Tells you	*Indicates how many days our customers take on average to pay their debts. Should be an average 35-40 days or better. A calculation of 36 days means* ***that the business is collecting its accounts receivable on an average every 36 days.*** *Note: ALWAYS round to the next full day. (general rounding rule does not apply)*
Consequence of longer age of accounts receivable	*Cash does not come in quickly enough from accounts receivable to pay accounts payable*
To improve	• Write off long overdue accounts as Bad debts. • Perform credit checks. • Encourage payment of accounts by offering discounts or charge interest for overdue accounts. • Review credit collection policies. i.e. send regular statements or phoning accounts receivable.

	For Example: *Charge interest on overdue accounts* (Recommendation) -This should encourage the *debtors to pay their accounts more quickly*, which *reduces the amount of time they have money outstanding to the firm and improves the age of Accounts Receivable.*

Financial Stability

EQUITY RATIO	
Tells you	This tells us how much of the business assets have been financed by the owner. If the ratio is too high, this means the business is not making use of external funds (borrowing) to expand the business***. A ratio of 0.6:1 means for every $1 of assets the owner has financed 60c.***
Consequence of longer age of accounts receivable	The ratio needs to be greater than 0.5:1. If the ratio is less than 0.5:1, the creditors may impose restrictions on lending.
To improve	• If the ratio is low, the owner must invest more capital. • If the ratio is high, borrow more long term funds. *For Example: The owner invests a vehicle into the business* (Recommendation)*) which increase the equity relative to assets, improving the Equity Ratio* (Justifying Recommendation).

Please Note:

Interpret – Making links between related analysis measures and other financial information

Profitability

- An increase in Mark up Percentage will increase Gross Profit Percentage and vice versa.
- Mark Up Percentage is linked to both sales and inventory turnover. A decrease in mark up should lead to an increase in sales and an increase in inventory turnover as the sales volume has improved.
- An increase in Gross Profit Percentage should lead to an increase in Net Profit Percentage. If not, the firm has less control over expenses.
- A decrease in Expenses Percentage (better control over expenses) should lead to an increase in Net Profit Percentage.
- A decrease in Net Profit Percentage is not necessarily detrimental for the firm if the net profit figure in the Income Statement has increased. A higher net profit figure means that the firm is more profitable even though it may have a lower Net Profit Percentage.
- An increase in net profit figure will usually lead to an increase in the return on owner's equity.
- If the capital figure in the Balance Sheet has increased, and Net Profit has remained constant the return on owner's equity would decrease.

Liquidity / Management Effectiveness

Current Ratio	Liquid Ratio	Causes	Recommendation
High	High	Too much cash Age of Accounts Receivable slow	Better invested in interest bearing accounts Write off bad debts, and check credit collection policies
High	Low	Decrease in Inventory turnover with the possibility of obsolete stock or overstocking	Clearance sale of obsolete stock Check procedures when purchasing stock write off any obsolete stock
Low	High	a large secured bank overdraft	Check assets have been financed by non current liabilities (long term sources)
Low	Low	Increase in unsecured bank overdraft Assets financed from short term rather than long term sources	Owner invests cash or reduces amount of drawings Check assets have been financed by non current liabilities (long term sources)

Liquidity / Financial Stability

- If the Equity ratio is low and the liquid ratio is low, the owner should invest more capital
- If the Equity ratio is high and the liquid ratio is low, the firm should borrow from long term sources e.g. increase mortgage

Assessment Criteria Word	Possible meaning/requirement of the word(s)
Analyse	Calculate analysis measures
Interpret	• Explain the analysis ratios, possible reasons for trends, possible consequences of a continued trend • Provide links between analysis measures and other information; between related analysis measures • Validly comment on an entity's financial performance, and/or financial position, and/or cash flows, using comparative figures (including industry averages) and results of analysis • Compare the financial and/or non-financial information relating to the business, or to two sole proprietor businesses.
Recommendation	• A Strategy that will improve an identified weakness
Justified recommendation	• An explanation of how the recommendation(s) will improve the identified weakness