



**MASTER OF MANAGEMENT IN AGRIBUSINESS
End of Semester Exam**

MMA 8303: FINANCIAL AND MANAGERIAL ACCOUNTING IN AGRIBUSINESS

Date: Monday, 13th January 2025

Time: 3 Hours

Instructions:

- 1. Question ONE is COMPULSORY**
- 2. Answer TWO other questions choosing from QUESTION TWO to FOUR**

QUESTION ONE (50 Marks)

Use the case provided to answer parts (a), (b) and (d) of this question.

- (a) Briefly summarize the main business of the organization **(4 Marks)**
- (b) Highlight the Company's Key incomes, expenses, assets, liabilities and capital for 2022 and 2023. (Provide a maximum of three items based on material amounts). Suggest possible reasons for the changes in the figures from one period to the next. **(22 Marks)**

Use a table with the following headings

Item	2022 (sh.m)	2023 (Sh.m)	Change +-Sh.m	Possible reason(s) for change
------	----------------	----------------	------------------	-------------------------------

(c)(i) For each of the two years, compute the following ratios:

- Total Assets Turnover **(2 Marks)**
- Net Profit Margin **(2 Marks)**
- Return on Equity **(2 Marks)**
- Cash Return on Revenue **(2 Marks)**
- Current Ratio **(2 Marks)**

(ii) Using the financial statements and the ratios computed above, comment on the following aspects of the business over the two years

- Efficiency **(1 Mark)**
- Profitability **(1 Mark)**

- Cash Flow (1 Mark)
- Liquidity (1 Mark)

(d) Use the Balanced Scorecard to evaluate the performance for the year 2023. Provide the Five Perspectives, mentioning one goal and measure you are using to evaluate the performance (10 Marks).

Hint: Use a table with the following headings

Perspective	Goal	Evaluation supported with a measure
-------------	------	-------------------------------------

QUESTION TWO (25 Marks)

(a) The following balances were extracted from the books of Wakulima Ltd, a medium sized company in Agribusiness, as at 31 March 2024:

	Sh.'000'
Loan from Agricultural Finance Corporation (AFC)	180,000.00
Retained profits as at 1 st April 2023	30,000.00
Ordinary Share Capital	816,000.00
Farm workers` wages	15,000.00
Manager`s salary	18,000.00
Cash in hand	78,000.00
Receivables	90,000.00
Farm tools	7,500.00
Repairs to farm machinery	1,500.00
Staff welfare	3,000.00
Farmhouse expenses	3,600.00
Purchase of: Seeds	12,000.00
Livestock	30,000.00
Fertilizer	7,500.00
Livestock feeds	2,100.00
Wages: Livestock feeds	48,000.00
Expenses: Crops	30,000.00
Livestock	36,900.00
Administration Expenses	12,000.00
Interest on Loan from AFC	13,500.00
Inventories as at 1 April 2023:	
Growing crops, seeds and fertilizers	60,000.00
Livestock	75,000.00
Livestock feeds	18,000.00
General insurance premium	14,400.00
Payables	45,000.00
Bank balance(overdraft)	9,000.00
Sale of: Crops	105,000.00
Cattle	180,000.00

Carcasses	45,000.00
Farm machinery	234,000.00
Land and building	600,000.00

Additional information:

1. Inventories as at 31 March 2024 were valued as follows:

	Sh.'000'
Growing crops, seeds and fertilizers	30,000.00
Livestock	120,000.00
Livestock feeds	3,000.00

2. The manager's salary is charged to livestock and crop revenue accounts in the ratio 1:3 respectively.
3. Valuation of farm tools as at 31 March 2024 was Sh.6,000,000. Depreciation on farm machinery is to be provided at 20% per annum on book value. Depreciation and repairs on farm machinery are to be charged to the general income statement.
4. Insurance prepaid amounted to Sh.1,200,000 and is to be the general income statement.
5. The farm used manure worth Sh.900,000, while crops used to feed the livestock were valued at Sh.390,000.
6. Receivables of Sh.1,500,000 are credit losses and an allowance for credit loss of 4% on the remaining amount is estimated.
7. Crops consumed by the farm workers were valued at Sh.3,000,000. This amount was recovered from their wages.
8. The shareholders provided farm labor valued at Sh.6,000,000 while crops valued at 9,600,000 were donated to charity during the year.
9. Income tax expense of Sh.9,000,000 is to be provided.

Required:

- (i) Operating Statements of profit or loss for Crop and Livestock (side by side in columnar form), for the year ended 31 March 2024 **(10 Marks)**.
 - (ii) The overall statement of profit or loss for the year ended 31 March 2024 **(4 marks)**.
 - (iii) Statement of financial position as at 31 March 2024. **(6 marks)**
- (b) Highlight FIVE ways that accounting software can aid Wakulima Limited **(5 Marks)**

QUESTION THREE (25 Marks)

(a) Using suitable examples, explain the following categories of cost classifications.

- (i) Product and Period Costs **(3 Marks)**
- (ii) Relevant and Irrelevant Costs **(3 Marks)**

(b) Agritracks Limited, provides tractors and personnel to assist farmers in ploughing, planting, weeding and harvesting in various counties in Kenya. Tractors and personnel are hired daily. The Chief Accountant is analyzing data for 10 tractors and personnel operating in Kitale, Tranzoia County for the purpose of estimating the daily rate to charge farmers, for every tractor hired.

The following information relates to the tractors:

	Shs
Initial cost of all tractors	30,000,000
Scrap value of all tractors	2,500,000
Insurance premium per annum per tractor	2,100,000
Labor cost- of replacing tyres per tractor	5,000
Labor cost- service per tractor	3,000
Replacement of spare parts per service per tractor	10,000
Price of fuel per litre	170

Additional information:

1. The tractors have an economic life of 2.5 years and depreciation is straight-line.
2. One tractor has 2 large tyres costing Sh.80, 000 each and 2 small tyres costing sh.20,000 each. These are replaced after every 25,000 kilometers.
3. Service is carried out on the tractors after every 5,000 kilometers.
4. On average, a tractor covers 10 kilometers per liter of fuel consumed.
5. It is estimated that a tractor operates 320 days in a year, with an average of 80 kilometers per day.
6. One tractor has a driver and two other personnel for each assignment. A driver is on a monthly salary of sh.45, 000 and the other personnel are paid sh.35, 000 per month. Other overheads allocated to this county amount to sh. 20, 000,000 per annum.

Required:

Compute the daily cost of providing farming services per tractor and the rate that farmers should be billed assuming that Agritracks limited wishes to make a profit of 20% on cost (**14 Marks**).

(c) Assume that depreciation, insurance, salaries to the driver and overheads allocated are fixed costs.

- i. Determine the fee that the company should charge per tractor, per day to break even
- ii. Highlight **TWO** assumptions that underlie the computation of the breakeven fee (**5 Marks**).

QUESTION FOUR (25 Marks)

(a) Farmbiz, manufacturing different flavours of tea and coffee has the following production planned for the next four weeks:

	A	B	C	D
	\$	\$	\$	\$
Selling Price	160	214	100	140
Raw Material Cost	24	56	22	40
Direct Labor Cost	66	88	33	22
Variable Overhead Cost	24	18	24	18

Fixed Overhead Cost	16	10	8	12
Planned output in units	300	125	240	400
Direct Labor Hours Per Unit	6	8	3	2

The figures reflect the full capacity level of operations. Planned output is equal to the maximum demand per product. Unfortunately, the factory workers are protesting low payrates and are now on a go slow. They will only work for 2,160 hours. Given this situation, the management is considering two options:

- (i) Give priority to the units that have a higher contribution per unit
- (ii) Give priority to the units that have a higher contribution per hour of labour

Required

- (i) Determine the overall contribution for each option (**12 Marks**)
- (ii) Recommend the better option and justify your answer (**3 Marks**)

(b) Using a suitable example, discuss how Six Sigma can be used by a poultry farmer as per the DMAIC framework (**10 Marks**)