(Knowledge for Development)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS

2022/2023 ACADEMIC YEAR

FIRST YEAR SECOND SEMESTER

MAIN EXAMS

FOR THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION

COURSE CODE: MBA 807

COURSE TITLE: MANAGEMENT ACCOUNTING

DATE: 3RD FEBRUARY, 2023 **TIME: 2.00PM – 5.00PM**

INSTRUCTIONS TO CANDIDATES

1.Answer Question One in Section A and Any other THREE (3) Questions in Section B

2.Question **one** carries **40**marks and each of the other THREE questions carry **20** marks each

TIME: 3 Hours

KIBU observes ZERO tolerance to examination cheating

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SECTION A

QUESTION ONE

a) The success of an organization in cost control and cost reduction depends largely on the installation of an ideal cost accounting system which identifies, classifies and records all costs accurately and promptly. With reference to the above statement, explain four conditions for an effective costing system (8 Marks)

b) Transfer pricing of products between processes in a manufacturing company can be done at: i). Cost or ii). Sales value at the point of transfer.

Required: Discuss how each of the above methods could be used effectively in the operations of a responsibility accounting system. (10 marks)

c) Large service organizations such as banks and hospitals used to be noted for their lack of standard costing systems and their relatively unsophisticated budgeting and control systems compared to the practice in large manufacturing organizations. But this is changing any many large service organizations are now reversing their use of management accounting techniques. **Required:** Explain which features of large service organizations encourage the application of activity-based approaches to the analysis of cost information. (7 marks)

d) New Books Publishers (NBP) Ltd. are planning to introduce a new management accounting text book. The company's management accountant estimates that the initial distribution for likely sales is normal with a mean of 20,000 books. In addition, it has been determined that there is a probability of 0.5 that the likely sales will lie between 16,000 and 24,000 books. The textbooks will sell for Sh.1,000 per copy but the publishing company pays the author 10% of the revenue in royalties while the fixed costs of printing and marketing the book are calculated at Sh.2.5 million. Using current printing facilities, the variable production costs are Sh.400 per book, however the NBP Ltd. Has the option of hiring a special machine for Sh.1.4 million which will reduce the variable production costs to Sh.250 per book. **Required:**

i) Show the standard deviation (□) of likely sales is approximately 6,000. (6marks)

ii) Using □ = 6000, determine the probability that the company will at least break even if:

a. Existing printing facilities are used. (3 marks)

b. The special machine is hired (3 marks)

iii) By comparing expected profits, decide whether or not the publishing company should hire the special machine. (3 marks)

SECTION B

QUESTION TWO

Zetu Ltd. is a manufacturing company with two divisions; A and B. Division A manufactures a single standard product K, some of which is sold externally and the remainder used as an input in division B in the manufacture of product M.

The unit production costs of product K are given below:

	Shs.
Direct material	40
Direct labour	20
Direct expense	20
Variable manufacturing overheads	20
Fixed manufacturing overheads	40
Selling and packaging expenses (variable)	10
	150

Annually, 10,000 units of product K are sold externally at a price of Shs. 300 per unit and 5,000 units are transferred to division B at an internal transfer price of Shs. 290 arrive at by deducting the selling and packaging expense from the external price of Shs. 300 which is not incurred for products transferred internally.

The unit production cost for product M which uses product K as an input is given below:

	Shs.	
Cost of internally transferred products from division A to division B		290
Direct material	230	
Direct labour		30
Variable overheads		120
Fixed overheads		120
Selling and packaging expenses (variable)		10
		800

The manager of division B has disagreed with the basis used in arriving at the transfer price. He argues that the transfer price should be arrived at by charging the variable cost plus an agreed mark-up. He also claims that division A would not be in a position to externally sell the extra units that are transferred to division B at the price of Shs. 300.

A survey on the relationship between the selling price and demand for each division was carried out by the company's Sales Director. The results are shown in the table below:

Division A	Selling price (Shs.)	200	300	400
	Demand (units)	15,000	10,000	5,000
Division B	Selling price (Shs.)	800	900	1,000
	Demand (units)	7,200	5,000	2,800

The manager of division B suggests that based on the above results, a transfer price of Shs. 120 would offer division A a reasonable contribution towards its fixed cost and earn division B a reasonable profit. This would lead to an increase in the output and overall profitability of the company.

Required:

(a) Calculate the effect of the existing transfer pricing system on the company's profits. (12 marks)

(b) Calculate the effect of adopting the transfer price of Shs. 120 on the company's profits. (8 marks) (NB: use the results of the Sales Director's survey in your calculations).

QUESTION THREE

The Finance Director of Tuungane Ltd. is considering developing a flexible-budget formula for the manufacturing overhead costs. The accounting staffs have suggested that simple linear regression be used to determine the cost behaviour pattern of the overhead cost. They consider that this method would provide a good and quick estimate of the costs that can be expected to be incurred each month. The actual direct-labour hours and corresponding manufacturing overhead costs for each month between 2016 and 2019 were used in the linear-regression analysis.

The following occurrences during the period are considered unusual:

1. Production was reduced in one month during 2017 due to wildcat strikes related to political changes in one of the countries.
2. In 2018, production was reduced in one month because of material shortages and materially increased (overtime scheduled) during two-months to meet the units required for one-time sales order.
3. Employee benefits were raised significantly in December 2018 as a result of a labour agreement.
4. Production during 2019 was not affected by any special circumstances.

The accounting staff raised the following issues:

- Some members question whether historical data should be used at all to form the basis for a flexible-budget formula.
- Some members believe that the use of data from all 48 months would provide a more accurate portrayal of the cost behaviour. While they recognized that any of the monthly data could include efficiencies, they believed these would tend to balance out over a long period of time.
- Still other members felt that only the most recent 12 months should be used because they were the most current.

- Other members of the accounting staff suggested that only those months that were considered normal should be used so that the regression would not be distorted.

The accounting department ran two regression analyses of the data, one using the data from all 48 months and the other using only the data from the last 12 months.

The results were as follows:

Tuungane Ltd Least-square Regression Analyses		
	Data from all	Data from most recent
Coefficients of the regression equation:		
Constant	Sh.185.715	Sh.163.530
Independent variable	Sh. 2.40045	6.9655
Coefficient of correlation	0.47	0.69
Standard error of the estimate	19.504	11.210
Standard error of the regression		
Coefficient for t he independent variable	0.97	1.40
Calculated t statistics for the registration coefficient	1.64	3.01
Statistics required for a 95% confidence interval:		
10 degrees of freedom		2.23
34 degrees of freedom	1.96	

Required:

a) i Formulate the flexible-budget equation that can be employed to estimate monthly manufacturingoverhead costs. (2 marks) ii Calculate the estimate of overhead costs for a month when 37.500 direct labour hours are worked. (2 marks)

b) Using only the results of the two regression analysis above, explain which of the two results is more appropriate as a basis for the flexible-budget formula. (7 marks)

c) Evaluate and explain how each of the four issues raised by the accounting department staff influence our willingness to use the results of the statistical analyses as the basis for the flexible-budget formula. (9 marks)

QUESTION FOUR

(a) List five assumptions underlying the cost-volume-profit (CVP) analysis. (5 marks)

(b) Makazi Ltd. manufactures a hedge-trimming tool which has been selling at Shs. 1,600 per unit for a number of years. The selling price is to be reviewed and the following information is available on costs and the likely demand:

1. The standard variable cost of manufacturing the tool is Shs. 1,000 per unit and an analysis of the cost variances in the past 20 months shows the following pattern which the production manager expects to continue in the future.
    - Adverse variances of 10% of the standard variables cost occurred in ten of the twenty months.
    - Nil variances occurred in six of the twenty months.
    - Favourable variances of 5% of the standard variable cost occurred in four of the twenty months.
2. Fixed costs have been Shs. 400 per unit at an average sales level of 20,000 units, but are expected to rise in the future.
3. The following estimates have been made of the total fixed cost:

	Shs.	Probability
Optimistic estimate	8,200,000	0.3
Most likely estimate	8,500,000	0.5
Pessimistic estimate	9,000,000	0.2

4. The demand estimates at the two proposed selling prices being considered are as follows:

Proposed selling price	Shs. 1,700	Shs. 1,800	
	No. of units demanded	No. of units demanded	Probability
Optimistic estimate	21,000	19,000	0.2
Most likely estimate	19,000	17,500	0.5
Pessimistic estimate	16,500	15,500	0.3

Assume that all the estimates and probabilities are independent.

Required:

i). Based on the information given above, advise the management of Makazi Ltd. on whether they should change the selling price. Indicate the price you would recommend. (6 marks)

ii). The expected profit at the price you have recommended in (i) above and the resulting margin of safety expressed as a percentage of expected sales. (4 marks) iii). Comment on the method of analysis you have used to deal with the probabilities given in the question.

(2 marks)

iv). Explain briefly how the use of a computer program would improve your analysis. (3 marks)

QUESTION FIVE

Fuliza Ltd. was formed ten years ago to provide business equipment solutions to local business. It has separate divisions for research, marketing, product design, technology and communication services, and now manufactures and supplies a wide range of business equipment. To date the company has evaluated its performance using monthly financial reports that analyze profitability by type of equipment. The managing director of Fuliza Ltd. has recently returned from a course in which it has been suggested that the "Balanced Scorecard" could be a useful way of measuring performance.

Required:

a) Explain the "Balanced Scorecard" and how it could be used by Fuliza Ltd. to measure its performance. (10 marks)

b) The managing director of Fuliza Ltd. also overheard someone mention how the performance of their company had improved after they introduced "Benchmarking." **Required:**

Explain "Benchmarking" and how it could be used to improve the performance of Fuliza Ltd. (10 marks)