THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

A. M. E. C. E. A

MAIN EXAMINATION

AUGUST - DECEMBER 2018 TRIMESTER

FACULTY OF COMMERCE

MBA ODEL PROGRAMME

CAC 610: MANAGERIAL ACCOUNTING

Date: DECEMBER 2018	Duration: 3 Hours
INSTRUCTIONS: Answer Question ONE and any other THREE Questions	

Q1. a) Ms. Felista Nyakerario is the regional manager of *SuperMart*, a large supermarket chain. Ms. Felista is investigating why certain supermarkets in her region are performing better than others. She believes that three factors are related to total weekly sales: the number of competitors in the region, the population in the surrounding area, and the amount spent on advertising. From her region, consisting of several hundred supermarkets, she selected a random sample of 30 stores. For each store she gathered the following information;

Y = total sales last month (in Sh thousands),
X_1 = number of competitors in the region,
X_2 = population of the region (in millions),
X_3 =advertising expense (in Sh thousands)

The sample data were run on a statistical software package, with the following results.

ANOVA

	df	SS	MS	F	Significance F
Regression	3	3050.00	762.50	9.01	<0.0001
Residual	26	2200.00	84.62		
Total	29	5250.00			

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Predictor	Coefficients	Standard Error	t Stat	P-value
Intercept	14.00	7.00	2.00	0.047
X1	-1.00	0.70	-1.43	0.153
X2	30.00	5.20	5.70	0.002
X3	0.20	0.08	2.50	0.007

a) Establish the total weekly sales estimating function from the output. **(2 marks)**

b) Estimate weekly sales for the Baragoi Store, which has four competitors, a regional population of 400,000, and advertising expense of Sh 30,000. **(2 marks)**

c) Conduct a global test to determine whether any of the regression coefficients are significantly different from zero. **(2 marks)**

d) Conduct tests of hypotheses to determine which of the independent variables have significant regression coefficients. **(4 marks)**

e) Which variables would you consider eliminating from Ms. Felista's model? Justify your answer. **(1 mark)**

f) Given that R^2 for this model is 0.5809, can you now conclude that the factors Felista has identified account for all the variations in weekly sales? Explain. **(3 marks)**

b) Refer to the case Arizona Microbrewery Inc. attached and answer the following questions.

i) Determine the contribution sales ratio for each product. **(2 marks)**

ii) Which product would you recommend being emphasized assuming there were not limiting factors? Justify your choice. **(1 mark)**

iii) Determine the weighted average contribution margin ratio for the brewery using the cases sold last year to estimate the sales mix. **(2 marks)**

iv) Estimate the breakeven number of cases that the brewery should sell to breakeven (1) in total, and (2) for each brand of product. **(4 marks)**

v) Provide an analysis to help assess whether Sedona Stout should be dropped or not. **(4 marks)**

vi) Recommend the order in which the brands should be produced assuming that machine hours was a limiting factor **(3 marks)**

Q2. Antony Mwamzi is the production manager for Stained Glass Company. Trying to explain why he did not get the year-end bonus that he had expected, he told his wife, "This is the dumbest place I ever worked. Last year the company set up this budget assuming we would sell 150,000 lamps. Well, they sold only 140,000. The company is losing money and they give me a bonus for not using as much materials and labour as was called for in the budget. This year, the company has the same 150,000 goal and we sell 160,000. The company's making all kinds of money. You'd think I'd get this big fat bonus. Instead, they tell me I used more money if I'd stayed within my budget. I guess I got to wait for another bad year before I get a bonus. Like I said, this is the dumbest place I ever worked."

Stained Glass Company's master budget and the actual results for the most recent year of operating activity follow.

	Master budget	Actual results	Variances	F or U
Number of units	150,000	160,000	10,000	
Sales Revenue	Ksh 33,000,000	Ksh 35,520,000	Ksh 2,520,000	F
Variable production costs:				
Materials	4,800,000	5,300,000	500,000	U
Labour	4,200,000	4,400,000	200,000	U
Overhead	2,100,000	2,290,000	190,000	U
Variable selling and administration	5,250,000	6,180,000	930,000	U
Contribution margin	16,650,000	17,350,000	700,000	F
Fixed costs:				
Production	7,830,000	7,830,000	0	
Selling and Administration	6,980,000	6,980,000	0	
Net Income	**1,840,000**	**2,540,000**	**700,000**	**F**

Required:

a) Did the marketing department increase sales by lowering prices or by using some other strategy? Justify your answer.   **(1 mark)**

b) Is Mwamzi correct in his conclusion that something is wrong with Stained Glass Company's performance evaluation system? If so, suggest how the system can be improved.   **(2 marks)**

c) Prepare a flexible budget and determine the amount of the flexible budget variances.   **(7 marks)**

Q3.   a)   Explain why cost classification is important. Should costs be classified in the same way all the time by all organizations? Explain.   **(2 marks)**

b)   The Twenge Manufacturing Company is considering introducing two new products. The company can add both to the current product line, neither, or just one of the two. The success of these products depends on the general economy and on consumers' reactions to the products. These reactions can be summarized as "good," whose probability is 30%; "fair," whose probability is 50%; or "poor," whose probability is 20%. The company's revenues, in thousands of shillings are estimated in the following payoff table.

Decision	State of Nature		
	Good	Fair	Poor
Neither	0	0	0
Product 1 only	125	65	30
Product 2 only	105	60	30
Both	220	110	40

a) Compute the expected monetary value for each decision.
                                                                                (2 marks)
b) What decision would you recommend? Justify your choice. **(2 marks)**
c) Compute the expected value of perfect information and explain the significance of your answer.   **(4 marks)**

Q4.   Using the information in the case Arizona Microbrewery Inc. and assuming that the estimated sales and production levels would be; 14,000 cases of Saguarro Pale Ale, 8,000 cases of Bisbee Bock, 5,800 cases of Ocotillo Amber Pilsner, and 5,500 cases of Sedona Stout; Sales prices would remain as indicated in the case,

Prepare the following budgets
       i)   Sales revenue budget   **(2marks)**
       ii)   Material cost budget   **(2 marks)**
       iii)   Labour cost budget   **(2marks)**
       iv)   Overhead cost budget   **(2 marks)**
       iv)   Machine hour utilization budget   **(2 marks)**

Q5.   a)   Explain what is meant by 'control' in management.   **(2 marks)**

b)   'The major reason for introducing budgetary control and standard costing systems is to influence human behaviour and to motivate the managers to achieve the goals of the organization. However, there are situations where accounting control systems fail to give sufficient attention to influencing human behaviour towards the achievement of organization goals.'

Required

i) Identify and explain four situations where accounting control systems might not motivate desirable behaviour. **(4 marks)**

ii) Briefly suggest improvements you would make to ensure that some of the dysfunctional behavioural consequences of accounting control systems are avoided. **(2 marks)**

END

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