United International **University**
School of Science & Engineering
Department of CSE/EEE
Final Exam, Fall-2021
Course: Financial & Managerial Accounting (ACT-111/ACT-2111/ACT-3101)

Time: 2 Hour **Full Marks: 40**

- ***(2 hour is allocated for main exam and extra 15 minutes will be given to you for uploading the pdf file in the elms platform)***
- ***Figure on the right margin indicates full marks.***

Question-1:

Singapore Exports markets two types of cosmetic products: Vanilla Soap, Almond Shampoo and Alovera Face Pack and A contribution format income statement for a recent month for the two games appears below:

Particulars	**Product**			**Total**
	Vanilla Soap	Almond Shampoo	Alovera Face Pack	
Sales	$ 50,000	70,000	30,000	1,50,000
Variable Expense Ratio	30%	70%	40%	

Fixed Expenses for the overall company are $35,000.

Required:

a) Compute the overall contribution margin (CM) ratio for the company.
b) Compute the overall break-even point for the company in dollar sales.
c) Verify the overall break-even point for the company by constructing a contribution format income statement showing the appropriate levels of sales for the three products.
d) *Refer to the original data*. If the company's sales increased by 90,000 in total, then how much Net operating Income will likely change. What is your assumption here?
e) Calculate the Margin of safety (MOS**)** for the company as a whole. If the company's sales are increased by 20% in the next month and fixed cost is increased by 1.5%, then how much Net Operating Income will change. (*Refer to original data to answer this question).* **(5*2=10)**

Best of Luck

Question-2: Suppose you are a management accountant of a manufacturing company, and you are a risk averse by nature. As a manager of the company, you have reasonable ground to believe that the coming year will be a bad economic year. In that situation which cost structure will you choose for your company and why? Explain with proper hypothetical example. **(5)**

Question-3: From the perspective of accountants, can you explain why management accounting is important besides financial accounting? **(5)**

Question-4: Sumaiya Co., Ltd., of Bangladesh is a manufacturing company whose total factory overhead costs fluctuate considerably from year to year according to increases and decreases in the number of direct labor-hours worked in the factory. Total factory overhead costs at high and low levels of activity for **recent years** are given below:

Particulars	**Level of Activity**	
	Low	**High**
Direct Labor Hour (DLH)	40,000	65,000
Total Factory Overhead Cost (tk.)	**14,000,000**	**19,000,000**

The factory overhead costs above consist of indirect materials, rent, and maintenance. The company has analysed these costs at the 65,000-hour level of activity as follows:

- Indirect materials (variable) . . . . tk. 10,000,000
- Rent (fixed) . . . . …...5,000,000
- Maintenance (mixed)* . . . . ……. 4,000,000
- Total factory overhead costs . . . .….tk. 19,000,000

To have data available for planning, the company wants to break down the maintenance cost into its variable and fixed cost elements.

Required:

a) Estimate how much of the tk.20,000,000 factory overhead cost at the high level of activity consists of **maintenance cost**.

b) Using the high-low method, **estimate a cost formula** for the maintenance Cost.

c) Develop a cost formula for the **total factory overhead cost**.

d) What **total factory overhead costs** would you expect the company to incur at an operating level of 60,000 direct labour-hours**?** **(2+3+3+2=10)**

Best of Luck

Question-5:

For many years **Abdul Monem Company Ltd.** has purchased the battery that it installs in its standard line of farm tractors. Due to a reduction in output, the company has idle capacity that could be used to produce the battery. The chief engineer has recommended against this move, however, pointing out that the cost to produce the battery would be greater than the current $7.40 per unit purchase price:

Particulars	**Per Unit**	**Total**
Direct Material	$ 3.10	
Direct Labor	2.70	
Supervision	1.50	$ 60,000
Depreciation	1.00	$ 40,000
Manufacturing Overhead	0.60	
Rent	0.30	$ 12,000
Total Production Cost	**$ 9.20**	

A supervisor would have to be hired to oversee the production of the battery. However, the company must purchase an additional machinery costing $50,000 to produce the battery in addition to above costs. The rent charge above is based on space utilized in the plant. The total rent on the plant is $80,000 per period. Depreciation is due to obsolescence rather than wear and tear. One fourth of the manufacturing overhead cost is traceable to battery production and the rest is general manufacturing cost and is common in nature.

Required:

a. Prepare computations showing how much profits will increase or decrease because of making the battery. Assume that the target production level is **35,000-unit battery per period**.

b. If the company purchase the battery from outside supplier, it can rent its freed capacity to a third party and can earn $10,000 per month. In that situation, should the company produce the battery internally or buy it from external supplier? (Show necessary calculation to support your answer. **(5+5=10)**

Best of Luck