

Benha Faculty of Engineering

Credit Hours System Programs Final exam - May 2020-Accounting

## Answer the following questions

## Question 1:

The following balances for the month ended September 30, 2019 for SOFTBYTE company are listed below :

Accounts payable $\$ 2,550$
Accounts receivable 3,550
Beginning capital 6,450
Cash 2,300
Cost of goods sold 52,300
Advertising expense 2,500
Drawings 8,800
Land 22,750
Income tax expense 10,700
Interest expense 1,150
Inventory 6,250
Long-term note payable 11,500
Investment 4,450
Prepaid rent 350

Rent expense 4,000
Sales 118,600
Wage expense 31,900
Wages payable 3,000

## Required:

You are required to prepare an income statement, statement of retained earnings, and a classified balance sheet.

## Question 2

A company sells only coffee and bagels, the company estimates that every time it sells one bagel, sells four cups of coffee. The budgeted cost information for its products for 2020 follows:

|  | Coffee | Bagels |
| :--- | :---: | :---: |
| Selling Price | $\$ 2.50$ | $\$ 3.75$ |
| Product ingredients | $\$ 0.25$ | $\$ 0.50$ |
| Hourly sales staff (cost per unit) | $\$ 0.50$ | $\$ 1.00$ |
| Packaging | $\$ 0.50$ | $\$ 0.25$ |

## Fixed Costs:

Rent on store and equipment
Marketing and advertising cost
\$5,000
\$2,000

## Required:

1. Define fixed costs, variable costs and contribution margin?
2. How many cups of coffee and how many bagels must the company sell in order to break even assuming the sales mix of four cups of coffee to one bagel, given previously?
3. 2. If the sales mix is four cups of coffee to one bagel, how many units of each product does the company need to sell to earn operating income before tax of $\$ 28,000$ ?
1. 3. Assume that the company decides to add the sale of muffins to its product mix. The selling price for muffins is $\$ 3.00$ and the related variable costs are $\$ 0.75$. Assuming a sales mix of three cups of coffee to two bagels to one muffin, how many units of each product does the company need to sell in order to break even? Comment on the results.

## Question 3:

The following data are for Marvin department store. The account balances (in thousands) are for 2020:

- Marketing, distribution, and customer-service costs \$ 37,000
- Merchandise inventory, January 1, 2011

27,000

- Utilities 17,000
- General and administrative costs 43,000
- Merchandise inventory, December 31, 2011 34,000
- Purchases 155,000
- Miscellaneous costs 4,000
- Transportation-in 7,000
- Purchase returns and allowances 4,000
- Purchase discounts
- Revenues


## Required:

1. Define direct material costs, direct manufacturing labor costs, and indirect manufacturing costs.
2. Compute:
(a) Cost of goods purchased and (b) cost of goods sold.
3. Prepare the income statement for 2020 .

## Question 4:

Ken Howard, financial analyst at KMW Corporation, is examining the behavior of quarterly maintenance costs for budgeting purposes. Howard collects the following data on machine hours worked and maintenance costs for the past 12 quarters:

| Quarter | Machine-Hours | Maintenance Costs |
| :---: | :---: | :---: |
| 1 | 100,000 | $\$ 205,000$ |
| 2 | 120,000 | 240,000 |
| 3 | 110,000 | 220,000 |
| 4 | 130,000 | 260,000 |
| 5 | 95,000 | 190,000 |
| 6 | 115,000 | 235,000 |
| 7 | 105,000 | 215,000 |
| 8 | 125,000 | 255,000 |
| 9 | 105,000 | 210,000 |
| 10 | 125,000 | 245,000 |


| 11 | 115,000 | 200,000 |
| :--- | :--- | :--- |
| 12 | 140,000 | 280,000 |

## Required:

1- Outline six steps in estimating a cost function on the basis of past cost relationships.
2- Estimate the cost function for the quarterly data using the high-low method.
3- Plot and comment on the estimated cost function.
4- Howard anticipates that KMW will operate machines for 100,000 hours in quarter 13. Calculate the predicted maintenance costs in quarter 13 using the cost function estimated in requirement 2.

With my best wishes
Dr. Heba Besher

