

**ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)**  
**ORGANISATION OF ISLAMIC COOPERATION (OIC)**  
**Department of Computer Science and Engineering (CSE)**

**FINAL EXAMINATION****SUMMER SEMESTER, 2019-2020****DURATION: 1 Hour 30 Minutes****FULL MARKS: 75****HUM 4641: Accounting**

**There are 4 (four) questions. Answer any 3 (three) questions. All questions carry equal marks.**

**Programmable calculators are not allowed. Do not write anything on the question paper.**

Figures in the right margin indicate marks.

1. a) Write short notes of the following with example: 10

- i) Product Cost
- ii) Sunk Cost
- iii) Selling and Distribution Cost
- iv) Factory Overhead
- v) Variable Cost

b) 15

Opening stock of raw material	62,500
Purchases of raw material	1,00,000
Closing stock of raw material	8,500
Direct wages	54,000
Direct expenses	12,000
Factory overheads	50% of direct wages
Office and administrative overheads	10% of works cost
Selling and distribution overheads	26,000
Cost of opening stock of finished goods	12,000
Cost of Closing stock of finished goods	15,000
Profit on Selling Price	20%

**Required:**

From the above information, prepare a Cost Sheet for the period ended on 31st March, 2018.

2. a) "Operating Leverage acts as a multiplier." Explain with example. 5
- b) Panasonic Company manufactures and sells a specialized cordless telephone for high 20  
 electromagnetic radiation environments. The company's contribution format income statement  
 for the most recent year is given below:

	Total	Per Unit
Sales (30,000 units)	\$1,500,000	\$50
Less: Variable expenses	<u>1,050,000</u>	<u>35</u>
Contribution margin	450,000	<u>\$15</u>
Fixed expenses	<u>300,000</u>	
Net operating income	<u>\$ 150,000</u>	

Management is willing to increase the company's profit and has asked for an analysis of a number of items.

**Required:**

- i) Compute the company's break-even point in both units and sales dollars.[Use the Formula Method]
- ii) Refer to the original data. Assume that next year management wants the company to earn a profit of at least \$180,000. How many units will have to be sold to meet this target profit? [Use the Equation Method]
- iii) Refer to the original data. Compute the company's margin of safety in dollar.
- iv) Compute the company's degree of operating leverage at the present level of sales.
- v) Assume that through a more intense effort by the sales staff, the company's sales increase by 10% next year. By what percentage would you expect net operating income to increase?
- vi) Verify your answer to (v) by preparing a new contribution format income statement showing a 10% increase in sales.
- vii) In an effort to increase sales and profits, management is considering the use of a higher quality speaker. The higher-quality speaker would increase variable costs by \$3 per unit, but management could eliminate one quality inspector who is paid a salary of \$30,000 per year. The sales manager estimates that the higher-quality speaker would increase annual sales by at least 20%.
  - Assuming that changes are made as described above, prepare a projected contribution format income statement for the next year.
  - Compute the company's new break-even point in dollars of sales. [Use the formula method]
  - Would you recommend that the changes be made?

3. a) Define Activity Variance and Revenue & Spending Variance. 5
- b) Yummy House is a family-owned restaurant that specializes in Scandinavian-style seafood. Data 20 concerning the restaurant's monthly revenues and costs appear below (q refers to the number of meals served):

	Formula
Revenue	\$18q
Cost of ingredients	\$6.25q
Wages and salaries	\$10,000
Utilities	\$800 + \$0.20q
Rent	\$2,200
Miscellaneous	\$600 + \$0.80q

**Required:**

- i) Prepare the restaurant's planning budget for April assuming that 2,000 meals are served.
- ii) Assume that 1,900 meals were actually served in April. Prepare a flexible budget for this level of activity.
- iii) The actual results for April appear below. Prepare a flexible budget performance report for the restaurant for April.

Revenue	\$35,000
Cost of ingredients	\$11,110
Wages and salaries	\$10,130
Utilities	\$1,080
Rent	\$2,200
Miscellaneous	\$2,240

4. a) "All future costs are relevant in decision making." Do you agree? Explain with Example. 5
- b) Ford Engines, Ltd. manufactures a variety of engines for use in heavy equipment. The company 20  
has always produced all of the necessary parts for its engines, including all of the carburetors. An outside supplier has offered to sell one type of carburetor to Ford Engines, Ltd., for a cost of \$40 per unit. To evaluate this offer, Ford Engines, Ltd., has gathered the following information relating to its own cost of producing the carburetor internally:

	Per Unit	15,000 Units per Year
Direct materials	\$14	\$210,000
Direct labor	12	180,000
Variable manufacturing overhead	5	75,000
Fixed manufacturing overhead, traceable	9*	135,000
Fixed manufacturing overhead, allocated	<u>10</u>	<u>150,000</u>
Total cost	<u>\$50</u>	<u>\$750,000</u>
*Two-thirds supervisory salaries; one-third depreciation of special equipment (no resale value).		

**Required:**

- i) Assuming that the company has no alternative use for the facilities that are now being used to produce the carburetors, should the outside supplier's offer be accepted? Show all computations.
- ii) Suppose that if the carburetors were purchased, Ford Engines, Ltd. could use the freed capacity to launch a new product. The segment margin of the new product would be \$150,000 per year. Should Ford Engines, Ltd., accept the offer to buy the carburetors for \$40 per unit? Show all computations.