

International Islamic University Chittagong
 Department of Business Administration
 MBA Program
 Final Examination, Spring 2022
 Managerial Accounting (ACC-5302)

Time: 3 hours

Marks: 40

Answer any four of the following questions.

Question No. 1

2+8 = 10

- a) Why are you interested to introduce absorption costing in your organization? Explain.
 b) Explain the causes of the difference of NOI under variable and absorption costing system.
 Dexter Corporation produces and sells a single product, a wooden hand loom for weaving small items such as scarves. Selected cost and operating data relating to the product for two years are given below:

Selling price per unit	\$50
Manufacturing costs:	
Variable per unit produced:	
Direct materials	12
Direct labor	15
Variable overhead	3
Fixed per year	\$120,000
Selling and administrative costs:	
Variable per unit sold	4
Fixed per year	\$70,000

	Year 1	Year 2
Units produced	12000	10000
Units sold	10000	8000

Required:

- i) Assume the company uses absorption costing. Compute the unit product cost in each year and prepare an income statement for each year.
- ii) Assume the company uses variable costing. Compute the unit product cost in each year and prepare an income statement for each year.
- iii) Reconcile the variable costing and absorption costing net operating income.

Question No. 2

10

Myñor Corporation manufactures and sells a seasonal product that has peak sales in the third quarter. The following information concerns operations for Year 2—the coming year—and for the first two quarters of Year 3: The Company's single product sells for \$10 per unit. Budgeted sales in units for the next six quarters are as follows (all sales are on credit):

	Year 2				Year 3	
	1 st QTR	2 nd QTR	3 rd QTR	4 th QTR	1 st QTR	2 nd QTR
Budgeted unit sales	50,000	60,000	100,000	50,000	80,000	90,000

- Sales are collected in the following pattern: 75% in the quarter the sales are made, and the remaining 25% in the following quarter. On January 1, Year 2, the company's balance sheet showed \$60,000 in accounts receivable, all of which will be collected in the first quarter of the year. Bad debts are negligible and can be ignored.
- The company desires an ending finished goods inventory at the end of each quarter equal to 30% of the budgeted unit sales for the next quarter. On December 31, Year 1, the company had 11,000 units on hand.
- Five pounds of raw materials are required to complete one unit of product. The company requires ending raw materials inventory at the end of each quarter equal to 10% of the following quarter's production needs. On December 31, Year 1, the company had 22,000 pounds of raw materials on hand.
- The raw material costs \$0.90 per pound. Raw material purchases are paid for in the following pattern: 60% paid in the quarter the purchases are made, and the remaining 40% paid in the following quarter. On January 1, Year 2, the company's balance sheet showed \$81,000 in accounts payable for raw material purchases, all of which will be paid for in the first quarter of the year.

Required: Prepare the following budgets and schedules for the year, showing both quarterly and total figures:

- a) A sales budget and a schedule of expected cash collections.
- b) A production budget.
- c) A direct materials budget and a schedule of expected cash payments for purchases of materials.

Question No. 3

10

Selected sales and operating data for three divisions of different structural engineering firms are given as follows:

	Division A	Division B	Division C
Sales	\$12,000,000	\$14,000,000	\$25,000,000
Average operating assets	\$3,000,000	\$7,000,000	\$5,000,000
Net operating income	\$600,000	\$560,000	\$800,000
Minimum required rate of return	15%	11%	15%

Required:

1. Compute the return on investment (ROI) for each division using the formula stated in terms of margin and turnover.
2. Compute the residual income for each division.
3. Assume that each division is presented with an investment opportunity that would yield a 14% rate of return.
 - a. If performance is being measured by ROI, which division or divisions will probably accept the opportunity? Reject? Why?
 - b. If performance is being measured by residual income, which division or divisions will probably accept the opportunity? Reject? Why?

Question No. 4

- a) Does all future cost are relevant for decision making? Why? 02
- b) Are variable costs always relevant costs? Explain. 02
- c) Han Products manufactures 30,000 units of part S-6 each year for use on its production line. At this level of activity, the cost per unit for part S-6 is as follows: 06

Direct materials	\$ 3.60
Direct labor	10.00
Variable manufacturing overhead	2.40
Fixed manufacturing overhead	9.00
Total cost per part	<u>\$25.00</u>

An outside supplier has offered to sell 30,000 units of part S-6 each year to Han Products for \$21 per part. If Han Products accepts this offer, the facilities now being used to manufacture part S-6 could be rented to another company at an annual rental of \$80,000. However, Han Products has determined that two-thirds of the fixed manufacturing overhead being applied to part S-6 would continue even if part S-6 were purchased from the outside supplier.

Required: Prepare computations showing how much profits will increase or decrease if the outside supplier's offer is accepted.

Question No. 5

You have been asked to prepare a December cash budget for Ashton Company, a distributor of exercise equipment. The following information is available about the company's operations:

- a) The cash balance on December 1 is \$40,000. 10
- b) Actual sales for October and November and expected sales for December are as follows:

	October	November	December
Cash sales.....	\$65,000	\$70,000	\$83,000
Sales on account.....	\$400,000	\$525,000	\$600,000

Sales on account are collected over a three month period as follows: 20% collected in the month of sale, 60% collected in the month following sale, and 18% collected in the second month following sale. The remaining 2% is uncollectible.

- c) Purchases of inventory will total \$280,000 for December. Thirty percent of a month's inventory purchases are paid during the month of purchase. The accounts payable remaining from November's inventory purchases total \$161,000, all of which will be paid in December.
- d) Selling and administrative expenses are budgeted at \$430,000 for December. Of this amount, \$50,000 is for depreciation.
- e) A new web server for the Marketing Department costing \$76,000 will be purchased for cash during December, and dividends totaling \$9,000 will be paid during the month.
- f) The company maintains a minimum cash balance of \$20,000. An open line of credit is available from the company's bank to bolster the cash position as needed.

Required:

- i) Prepare a schedule of expected cash collections for December.
- ii) Prepare a schedule of expected cash disbursements for merchandise purchases for December.
- iii) Prepare a cash budget for December. Indicate in the financing section any borrowing that will be needed during the month.

Question No. 6

- a) Discuss some of the major benefits to be gained from budgeting. 02
- b) Distinguish between a cost center, a profit center, and an investment center. 03
- c) Define ROI, RI and Investment centre. 03
- d) What are the advantages of Self-imposed budget? 02