

Question 1.

The following is Arkadia Corporation's contribution format income statement for last month:

Sales (20,000 units)	\$1,200,000
Variable expenses.....	<u>800,000</u>
Contribution margin	400,000
Fixed expenses	<u>300,000</u>
Net operating income	<u>\$ 100,000</u>

The company has no beginning or ending inventories and produced and sold 20,000 units during the month.

Required:

- What is the company's contribution margin ratio?
- What is the company's break-even in units?
- If sales increase by 100 units, by how much should net operating income increase?
- How many units would the company have to sell to attain target profits of \$125,000?
- What is the company's margin of safety in dollars?
- What is the company's degree of operating leverage?

QUESTION 2

Lewis Auto Company manufactures a part for use in its production of automobiles. When 10,000 items are produced, the costs per unit are:

Direct materials	\$ 12
Direct manufacturing labor	60
Flexible manufacturing support	24
Fixed manufacturing support	<u>32</u>
Total	<u>\$128</u>

Monty Company has offered to sell Lewis Auto Company 10,000 units of the part for \$120 per unit. The plant facilities could be used to manufacture another part at a savings of \$180,000 if Lewis Auto accepts the supplier's offer. In addition, \$20 per unit of fixed manufacturing support on the original part would be eliminated.

Required:

Which alternative is best for Lewis Auto Company? Compute the financial difference between the alternatives?

Question 3

- . Cabio Company manufactures two products, Product C and Product D. The company estimated it would incur \$119,100 in manufacturing overhead costs during the current period. Overhead currently is applied to the products on the basis of direct labor hours. Data concerning the current period's operations appear below:

	Product C	Product D
Estimated volume	400 units	3,000 units
Direct labor hours per unit.....	1.20 hours	1.30 hour
Direct materials cost per unit.....	\$4.00	\$22.80
Direct labor cost per unit	\$12.00	\$13.00

Required:

- Compute the predetermined overhead rate under the current method, and determine the unit product cost of each product for the current year.
- The company is considering using an activity-based costing system to compute unit product costs for external financial reports instead of its traditional system based on direct labor hours. The activity-based costing system would use three activity cost pools. Data relating to these activities for the current period are given below:

Activity Cost Pool	Estimated Overhead Costs	Expected Activity		
		Product C	Product D	Total
Machine setups	\$ 10,440	60	120	180
Purchase orders.....	78,000	820	1,180	2,000
General factory	<u>30,660</u>	480	3,900	4,380
Total.....	<u>\$119,100</u>			

Required: Determine the unit product cost of each product for the current period using the activity-based costing approach.

QUESTION 4

A sales budget is given below for one of the products manufactured by the Khiva Co.:

January	20,000	units
February	30,000	units
March	60,000	units
April	40,000	units
May	30,000	units
June	20,000	units

The inventory of finished goods at the end of each month should equal 30% of the next month's sales. However, on December 31 the finished goods inventory totaled only 5,000 units. Each unit of product requires two specialized electrical switches. Since the production of these specialized switches by Khiva's suppliers is sometimes irregular, the company has a policy of maintaining an ending inventory at the end of each month equal to 40% of the next month's production needs. This requirement had been met on January 1 of the current year.

Required:

- Prepare a budget showing the required production each month for January, February, March, and April.
- Prepare a budget showing the quantity of switches to be purchased each month for January, February, and March.
- The production department of Urgench Corporation has submitted the following forecast of units to be produced by quarter for the upcoming fiscal year.

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Units to be produced	10,000	11,000	12,000	13,000

Each unit requires 0.30 direct labor-hours at \$10.00 per hour

Required:

Prepare a direct labor budget for the upcoming quarters & fiscal year, assuming that the direct labor work force is adjusted each quarter to match the number of hours required to produce the budgeted production.

QUESTION 5

Bukhara Corporation makes a product with the following standard costs:

	Standard Quantity or Hours	Standard Price or Rate
Direct materials	2.8 ounces	\$8.00 per ounce
Direct labor	0.3 hours	\$16.00 per hour
Variable overhead	0.3 hours	\$8.00 per hour

In July the company produced 4,900 units using 13,300 ounces of the direct material and 1570 direct labor-hours. During the month the company purchased 14,600 ounces of the direct material at a price of \$8.20 per ounce. The actual direct labor rate was \$16.20 per hour and the actual variable overhead rate was \$7.80 per hour. The materials price variance is computed when materials are purchased. Variable overhead is applied on the basis of direct labor-hours.

Required:

- Compute the materials quantity variance.
- Compute the materials price variance.
- Compute the labor efficiency variance.
- Compute the labor rate variance.
- Compute the variable overhead efficiency variance.
- Compute the variable overhead rate variance.

END OF EXAM PAPER