AC 202 Management Accounting (Exercise # 10)

Q. 1 Variable Costing & Absorption Costing

Andrea's Hobbies produces and sells a luxury animal pillow for $40.00 per unit. In the first month of operation, 3,000 units were produced and 2,250 units were sold. Actual fixed costs are the same as the amount budgeted for the month. Other information for the month includes:

Variable manufacturing costs	$19 per unit
Variable marketing costs	$ 1 per unit
Fixed manufacturing costs	$30,000 per month
Administrative expenses, all fixed	$6,000 per month
Ending inventories:	
Direct materials	-0-
WIP	-0-
Finished goods	750 units

Required:

a) What is cost of goods sold per unit using variable costing?
b) What is total cost of goods sold using variable costing?
c) What are contribution margin and operating income using variable costing?
d) What is cost of goods sold per unit when using absorption costing?
e) What are gross margin and operating income when using absorption costing?

Q. 2 Decentralization, responsibility centers

Quinn Corporation manufactures and sells lighting products. Quinn's Marketing Divisions are organized along product lines: wall sconces, recessed lights, track lights, and so on. The Manufacturing Division produces lighting products for all the marketing divisions.

During the planning process, each Marketing Division specifies the quantity of each style of light to be manufactured. Senior management then assigns the task of manufacturing the lights to different plants in the Manufacturing Division. Senior management determines the manufacturing schedule for different plants on the basis of detailed studies that have been done to measure the time and cost of manufacturing different types of lighting products at the different plants. Manufacturing managers are evaluated based on achieving target output within budgeted costs.

Required:

a. Is the Manufacturing Division a cost center or a profit center? EXPLAIN.
b. Quinn Corporation is considering decentralizing its marketing and manufacturing decision making by letting the Manufacturing Division and the Marketing Divisions directly negotiate the prices for manufacturing various products. How should Quinn evaluate the Manufacturing Division under this proposal? EXPLAIN.

Q.3 ROI

THE FOLLOWING INFORMATION APPLIES TO QUESTIONS 1 THROUGH 3.
The Cybertronics Corporation reported the following information for its Cyclotron Division:

Revenues	$1,000,000
Operating costs	600,000
Operating assets	500,000

1. What is the Cyclotron Division's investment turnover ratio?
2. What is the Cyclotron Division's profit margin?
3. What is the Cyclotron Division's return on investment?

Q.4 Balanced Scorecard

Match each perspective with its performance measures.

F = Financial perspective C = Customer Perspective

IB = Internal Business Process Perspective LG = Learning and Growth Perspective

Performance measures:

	1. Time taken to fulfill customer requests		2. Machine setup time
	3. Defect rates		4. Return on investment
	5. Employees' training costs		6. Stock prices
	7. Employee turnover rates		8. Number of innovative products
	9. Manufacturing capabilities		10. Percentage of products returned to sales
	11. Percentage of new customers		12. Number of employee complaints

Q. 5 Transfer Pricing

User Friendly Computer, Inc., with headquarters in San Francisco, manufactures and sells desktop computers. User Friendly has three divisions, each of which is located in a different country:

a. China Division – manufactures memory devices and keyboards
b. South Korea Division – assembles desktop computers using internally manufactured parts and memory devices and keyboards from the China Division
c. U.S. Division – packages and distributes desktop computers

Each division is run as a profit center. The costs for the work done in each division for a single desktop computer are as follows:

China Division:	Variable cost = \$125	Fixed cost = \$225
South Korea Division	Variable cost = \$300	Fixed cost = \$400
U.S. Division	Variable cost = \$100	Fixed cost = \$200

- Chinese income tax rate on China Division's operating income: 40%
- South Korean income tax rate on South Korea Division's operating income: 20%
- U.S. income tax rate on U.S. Division's operating income: 30%

Each desktop computer is sold to retail outlets in the United States for \$3,200.

The China Division sells the comparable memory/keyboard package used on each User Friendly desktop computer to a Chinese manufacturer for \$450. The South Korea Division sells the comparable desktop computer to a South Korean distributor for a \$1,300.

Required: Answer each question independently)ignore transportation costs(.

a. If the <u>market price method</u> is used,
   1) what is the unit transfer price from the China Division to the Korea Division?
   2) what is the unit transfer price from the Korea Division to the U.S. Division?
b. If the <u>200% of full cost method</u> is used,)Hint: Income taxes are not included in the computation of the cost-based transfer prices.(
   1) what is the unit transfer price from the China Division to the Korea Division?
   2) what is the unit transfer price from the Korea Division to the U.S. Division?
c. If the <u>300% of variable cost method</u> is used,)Hint: Income taxes are not included in the computation of the cost-based transfer prices.(
   1) what is the unit transfer price from the China Division to the Korea Division?
   2) what is the unit transfer price from the Korea Division to the U.S. Division?