I. Multiple Choice (Choose the one best answer. 45%)

- 1. The collection, presentation, and analysis of cost data should help management accomplish all of the following tasks except:
 - A. control the physical quantities of inventory
 - B. determine company costs and profits for an accounting period
 - C. choose from among two or more alternatives that will decrease operating costs
 - D. conform to financial reporting requirements for pension.
- 2. In the computation of manufacturing cost per equivalent unit, the weighted average method of process costing considers:
 - A. current cost only
 - B. current cost plus cost of beginning work in process inventory
 - C. current cost plus cost of ending work in process inventory
 - D. current cost less cost of beginning work in process inventory
- 3. A company could have a favorable market share variance and an unfavorable market size variance if:
 - A. the actual market share is larger than budgeted, while actual total product sold was less than budgeted.
 - B. the actual market share is less than budgeted, while actual total product sold was less than budgeted.
 - C. the actual market share is less than budgeted, while actual total product sold was greater than budgeted.
 - D. the actual market share is larger than budgeted, while actual total product sold was greater than budgeted.

Use the information below to answer the following questions 4-7.

Club, Inc. produces a special line of plastic toy racing cars. Club produces the cars in batches. To manufacture a batch of the cars, Club must setup the machines and molds. Setup costs are batch-level costs because they are associated with batches rather than individual units of products. A separate Setup Department is responsible for setting up machines and molds for different styles of car. Setup overhead costs consist of some costs that are variable and some costs that are fixed with respect to the number of setup-hours. The following information pertains to June 2004.

	Static-budget	Actual
	amounts	amount
Units produced and sold	15,000	11,250
Batch size (number of units per batch)	250	225
Setup hours per batch	5	5.25
Variable overhead cost per setup hour	\$40	\$38
Total fixed setup overhead costs	\$14,400	\$14,000

- 4. Calculate the efficiency variance for variable setup overhead costs.
 A. \$1,500 unfavorable
 B. \$525 favorable
 C. \$975 unfavorable
 D. \$1,200 favorable
- Calculate the spending variance for variable setup overhead costs
 A. \$1,500 unfavorable
 B. \$525 favorable
 C. \$975 unfavorable
 D. \$1,200 favorable

- 6. Calculate the spending variance for fixed setup overhead costsA. \$3,200 unfavorableB. \$800 favorableC. \$3,600 unfavorableD. \$400 favorable
- 7. Calculate the production-volume variance for fixed setup overhead costs

A. \$3,200 unfavorable B. \$800 favorable C. \$3,600 unfavorable D. \$400 favorable

Use the information below to answer the following questions 8-9.

Zozota Cars produces and sells an auto part for \$30 per unit. Direct materials are \$12 per unit, while direct manufacturing labor averages \$2.25 per unit. Variable overhead is \$0.75 per unit and fixed overhead is \$375,000 per year. Administrative expenses, all fixed, run \$135,000 per year, with sales commissions of \$3 per part. Production is 100,000 units per year. In 2004, 75,000 units were sold.

8. What is the inventory cost per unit using variable costing?

A. \$14.25 B. \$15.00 C. \$18.75 D. \$21.75

9. What is the inventory cost per unit using absorption costing?A. \$14.25 B. \$15.00 C. \$18.75 D. \$21.75

Use the information below to answer the following questions 10-12.

The Milk Company processes unprocessed goat milk up to the split off point where two products—condensed milk and skim milk result. The following information was collected for April:

Direct materials processed: 65,000 gallons (shrinkage was 10%)

Production:	Condensed milk	26,100 gallons
	Skim milk	32,400 gallons
Sales:	Condensed milk	\$3.50 per gallon
	Skim milk	\$2.50 per gallon

The cost of purchasing the 65,000 gallons of unprocessed goat milk and processing it up to the split-off point to yield salable products was \$72,240. There were no inventory balances of either product.

Condensed milk may be processed further to yield a milk product Super-X, which can be used for medicinal purposes, at an additional cost of \$3 per usable gallon, but the product can be sold for \$18 per gallon. The product yield will be 19,500 gallons with the remainder shrinkage. Skim milk can be processed further to yield 28,100 gallons of skim goat ice cream, for an additional processing cost per usable gallon of \$2.50. The product can be sold for \$9 per gallon. There was no beginning and ending inventory balances.

10. Calculate how the joint costs of \$72,240 would be allocated Super-X and skim goat ice cream using estimated net realizable value

A. \$41,971 and \$30,269	B. \$44,471 and \$27,769
C. \$32,796 and \$39,444	D. \$36,120 and \$36,120

11. What is the expected net realizable value of skim goat ice cream at the split-off point?

A. \$182,650 B. \$252,900	C. \$110,200	D. \$85,450
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12. Calculate the gross margin percentage for condensed milk at the split-off point under the sales value at split-off method

A. 21.1% B. 55.1% C. 58.1% D. 38.2%

Use the information below to answer the following questions 13-15.

Watch Company has two sources of funds—long-term debt with a market and book value of \$10 million issued at an interest rate of 12%, and equity capital that has a market value of \$8 million (book value of \$4 million). Watch Company has profit centers in the following locations, with the following operating incomes, total assets, and total liabilities. The cost of equity is 12%, while the tax rate is 25%.

	Operating inc	ome Assets	Current liabilities
St. Louis	\$960.	,000 \$4,000,000	\$200,000
Boston	1,200	,000 8,000,000	600,000
NY City	2,040,	,000 12,000,000	1,200,000
13. What is EVA for S	St. Louis?		
A. \$255,740	B. \$327,460	C. \$392,540	D. \$720,000
14. What is EVA for E	Boston?		
A. \$135,580	B. \$220,000	C. \$234,000	D. \$305,000
15. What is EVA for N	NY City?		
A. \$450,000	B. \$1,530,000	C. \$414,360	D. \$1,115,640

II. Snyder Corporation is a small information systems consulting firm that specializes in helping companies implement sales management software. The market for Snyder's products is very competitive. To compete, Snyder must deliver quality service at a low cost. Snyder bills clients in terms of units of work performed, which depends on the size and complexity of the sales management system. Snyder presents the following data for 2003 and 2004.

	2003	2004
Units of work performed	60	70
Selling price	\$50,000	\$48,000
Software implementation labor-hours	30,000	32,000
Cost per software implementation labor-hours	\$60	\$63
Software implementation support capacity (in units of work)	90	90
Total cost of software implementation support	\$360,000	\$369,000
Software implementation support capacity cost per unit of work	\$4,000	\$4,100
Number of employees doing software development	3	3
Total software development costs	\$375,000	\$390,000
Software development cost per employee	\$125,000	\$130,000

Software implementation labor-hour costs are variable costs. Software implementation support costs for each year depend on the implementation support capacity (defined in terms of units of work) that Snyder chooses to maintain each year. It does not vary with the actual units of work performed that year. At the start of each year, management uses its discretion to determine the number of software development employees. The software development staff and costs have no direct relationship with the number of units of work performed.

Required

- 1. Calculate the operating income of Snyder Corporation in 2003 and 2004. (6%)
- 2. Calculate the growth, price-recovery, and productivity components that explain the change in the operating income from 2003 to 2004. (14%)
- 3. What strategy does Snyder Corporation implement in 2004? Describe key elements you would include in Snyder's balanced scorecard. (15%)
- III. The Springfield Corporation manufactures filing cabinets in two operations: machining and finishing. It provides the following information.

	Machining	Finishing
Annual capacity	100,000 units	80,000 units
Annual production	80,000 units	80,000 units
Fixed operating costs (excluding direct materials)	\$640,000	\$400,000
Fixed operating costs per unit produced	\$8 per unit	\$5 per unit

Each cabinet sells for \$72 and has direct materials costs of \$32 incurred at the start of the machining operation. Springfield has no other variable cost. Springfield can sell whatever output it produces. The following requirements refer only to the preceding data. There is no connection between the requirements.

Required

- 1. Springfield is considering using some modern jigs and tools in the finishing operation that would increase annual finishing output by 1,000 units. The annual cost of these jigs and tools is \$30,000. Should Springfield acquire these tools? Show your computations. (5%)
- The production manager of the Machining Department has submitted a proposal to do faster setups that would increase the annual capacity of the Machining Department by 10,000 units and cost \$5,000 per year. Should Springfield implement the change? Show your computations. (5%)
- An outside contractor offers to do the finishing operation for 12,000 units at \$10 per unit, double the \$5 per unit that it costs Springfield to do the finishing in-house. Should Springfield accept this offer? Show your computations. (5%)
- 4. Springfield produces 2,000 defective units at the finishing operation. What is the cost to Springfield of the defective items produced? (5%)