Section A: Multiple Choice Questions (45%)

1. At an activity level of 6,000 units the cost for maintenance is $7,200 and at 10,000 units the cost for maintenance is $11,600. Using the high-low method, the cost formula for maintenance is:
   (a) $1.20 per unit　　(b) $1.16 per unit
   (c) $1,200 plus $1.10 per unit　　(d) $600 plus $1.10 per unit

2. South Publishing sells a nature guide. The following information was reported for a typical month (sales volume is constant each month):

	Total	Per Unit
Sales	$17,600	$16.00
Variable expenses	9,680	8.80
Contribution margin	7,920	$7.20
Fixed expenses	3,600	
Net operating income…	$4,320	

   South is expecting a 20 cent increase in variable expenses. No other changes are expected or planned. How much contribution margin should South expect after the increase?
   (a) $7,700　　(b) $4,100
   (c) $9,900　　(d) Cannot be determined.

3. The following information is for the East Corporation:

Product A: Revenue	$16.00
Variable Cost	$12.00
Product B: Revenue	$24.00
Variable Cost	$16.00
Total fixed costs	$75,000

   What is the breakeven point, assuming the sales mix consists of three units of Product A and one unit of Product B?
   (a) 10,000 units of A and 5,000 units of B　　(b) 11,250 units of A and 3,750 units of B
   (c) 12,000 units of A and 4,000 units of B　　(d) 4,000 units of A and 12,000 units of B

4. Which of the following minimizes the risks of outsourcing?
   (a) the use of short-term contracts that specify price
   (b) shifting the firm's responsibility for on-time delivery to the supplier
   (c) building close partnerships with the supplier
   (d) increasing the contract price

5. Which of the following methods is used to determine the most profitable production schedule and the most profitable product mix?
(a) balanced scorecard　(b) cause and effect diagram
(c) transfer pricing　(d) linear programming

6. North Trees manufactures rustic furniture. The cost accounting system estimates manufacturing costs to be $240 per table, consisting of 60% variable costs and 40% fixed costs. The company has surplus capacity available. It is North Trees' policy to add a 75% markup to full costs.
North Trees is invited to bid on a one-time-only special order to supply 100 rustic tables. What is the lowest price North Trees should bid on this special order?
(a) $7,200　(b) $12,000
(c) $14,400　(d) $42,000

7. The sales-mix variance will be unfavorable when ________.
(a) the actual sales mix shifts toward the less profitable units
(b) the contribution margin per composite unit for the actual mix is greater than the budgeted mix
(c) the actual unit sales are less than the budgeted unit sales
(d) the actual contribution margin is less than the static-budget contribution margin

8. West's Flowering Plants provides the following information for the month of May:

	Actual		Budget	
	Tulips	Geraniums	Tulips	Geraniums
Sales in units	4,420	4,080	4,950	3,300
Contribution margin per unit	$12	$19	$11	$21

What is the budgeted contribution margin per composite unit for the actual mix?
(a) $13.80　(b) $15.00
(c) $15.36　(d) $15.80

9. Under the dual-rate cost-allocation method, when fixed costs are allocated based on actual usage then ________.
(a) user-division managers are motivated to make accurate long-run usage forecasts
(b) variations in one division's usage affect another division's allocation
(c) the costs of unused capacity are highlighted
(d) user-division managers can better plan for the short-run and for the long-run

10. Stratford Company purchased a machine with an estimated useful life of seven years. The machine will generate cash inflows of $90,000 each year over the next seven years. If the machine has no salvage value at the end of seven years, and assuming the company's discount rate is 10%, what is the purchase price of the machine if the net present value of the investment is $170,000? (PV of annuity at 10% for seven years is 4.868)
(a) $221,950　　(b) $170,000
(c) $268,120　　(d) $438,120

11. Tigre Corporation is contemplating purchasing equipment that would increase sales revenues by $420,000 per year and cash operating expenses by $231,000 per year. The equipment would cost $747,000 and have a 9 year life with no salvage value. The annual depreciation would be $83,000. The simple rate of return on the investment is closest to: (Ignore income taxes in this problem.)
(a) 25.3%　　(b)14.2%
(c) 11.1%　　(d) 25.2%

12. When the selling prices of all products at the splitoff point are unavailable, the ________ is the best alternative for allocating joint costs.
(a) NRV method
(b) sales value at splitoff method
(c) physical measures method
(d) constant gross-margin percentage method

13. Which of the following statements is true of normal spoilage?
(a) It is a spoilage which is not inherent in a particular production process.
(b) It occurs due to machine breakdowns and operator errors.
(c) It is usually regarded as avoidable and controllable.
(d) It arises even when the process is carried out in an efficient manner.

14. A distinct feature of the FIFO process-costing method is that the ________.
(a) work done on beginning inventory before the current period is blended with the work done during the current period in the calculation of equivalent units
(b) work done on beginning inventory before the current period is kept separate from the work done during the current period in the calculation of equivalent units
(c) work done on ending inventory is kept separate from the work done during the current period in the calculation of equivalent units and is usually not included in the calculation
(d) FIFO process-costing method is only minimally different from the weighted-average process-costing method

15. Chiayi Steel processes a single type of steel. For the current period the following information is given:

	Units	Material Costs	Conversion Costs
Beginning Inventory	3,000	$4,500	$5,400
Started During the Current Period	20,000	32,000	78,200
Ending Inventory	2,500		

All materials are added at the beginning of the production process. The beginning inventory was 40% complete as to conversion, while the ending inventory was 30% completed for conversion purposes.

Chiayi uses the weighted-average costing method.

What is the total cost assigned to the units completed and transferred this period?

(a) $107,010　　(b) $109,440

(c) $113,160　　(d) $120,100

Section B: Computational Problems (40%)

1. Giant Corporation applies overhead based upon machine-hours. Budgeted factory overhead was $133,200 and budgeted machine-hours were 9,250. Actual factory overhead was $143,960 and actual machine-hours were 9,525. Before disposition of under/overapplied overhead, the cost of goods sold was $280,000 and ending inventories were as follows:

Direct materials	$ 30,000
WIP	95,000
Finished goods	125,000
Total	$250,000

Required: (round to the second decimal if needed)

(a) Determine the budgeted factory overhead rate per machine-hour. (2%)

(b) Compute the over/underapplied overhead. (2%)

(c) Prepare the journal entry to dispose of the variance using the write-off to cost of goods sold approach. (3%)

(d) Prepare the journal entry to dispose of the variance using the proration approach. (3%)

2. The following data for the Chiayi Garden Supplies Company pertains to the production of 2,000 garden spades during March. The spade consists of a wooden handle and a metal forged tool that comes in contact with the ground.

Direct Materials (all materials purchased were used):
Standard cost: $1.00 per handle and $3.00 per metal tool.
Total actual cost: $9,000.
Materials flexible-budget efficiency variance was $500 unfavorable.

Direct Manufacturing Labor:
Standard cost is 5 garden spades per hour at $20.00 per hour.
Actual cost per hour was $21.00.
Labor efficiency variance was $500 favorable.

Required:
(a) What is the standard direct material amount per garden spade? (3%)
(b) What is the standard cost allowed for all units produced? (3%)
(c) What is the total direct materials flexible-budget variance? (3%)
(d) What is the direct material flexible-budget price variance? (3%)
(e) What is the total actual cost of direct manufacturing labor? (3%)
(f) What is the labor price variance for direct manufacturing labor? (3%)

3. Chung Cheng Bicycles has been manufacturing its own wheels for its bikes. The company is currently operating at 100% capacity, and variable manufacturing overhead is charged to production at the rate of 30% of direct labor cost. The direct materials and direct labor cost per unit to make the wheels are $3.00 and $3.60 respectively. Normal production is 200,000 wheels per year.
A supplier offers to make the wheels at a price of $8 each. If the bicycle company accepts this offer, all variable manufacturing costs will be eliminated, but the $84,000 of fixed manufacturing overhead currently being charged to the wheels will have to be absorbed by other products.

Required:
(a) Prepare an incremental analysis for the decision to make or buy the wheels. (8%)
(b) Should Chung Cheng Bicycles buy the wheels from the outside supplier? Justify your answer. (4%)

Section C: Essay Questions (15%)

1. Sun Gold Corporation (SGC) manufactures decorative, sculpted accessories that are sold by interior decorators and home furnishing stores. The following situation concerns two SGC employees: Mary Martin, head of the company's Billing Department, and David Kose, the firm's general manager.

   Martin's Billing Department makes heavy use of hourly employees and is evaluated as a cost center. Understanding the need for prompt collection of receivables, Martin strives to run a first-class operation. Martin also understands the need to contribute in a big way to SGC's financial performance so she continually strives to minimize Billing Department expenses.

   Unfortunately, Martin experienced a heated discussion with Kose several weeks ago, the subject being the shoddy operation that she is running. Kose complained loudly about the lack of timely billings to customers and the general lack of attention to detail, as many complaints have surfaced about erroneous invoices and customer statements.

Required:

(a) What is meant by the term "responsibility accounting?" (3%)

(b) Briefly discuss the four types of responsibility centers. (4%)

(c) Does Kose have a valid reason to be upset with Martin? Given the nature of the Billing Department, did Martin err in her quest to minimize expenses? Explain. (4%)

(d) Is it likely that the Billing Department could be evaluated as a profit center? Why? (4%)