

招生學年度	104	招生類別	碩士班
系所班別	會計與財務碩士學位學程		
科目名稱	成本與管理會計學		
注意事項	本考科可使用掌上型計算機		

1. New Image Sports uses a process-costing system. For March, the company had the following activities:

Beginning work-in-process inventory (1/3 complete)	6,000 units
Units placed in production	24,000 units
Good units completed	18,000 units
Ending work-in-process inventory	10,000 units
Cost of beginning work in process	\$ 5,000
Direct material costs, current	\$18,000
Conversion costs, current	\$13,800

Direct materials are placed into production at the beginning of the process. All spoilage is normal and is detected at the end of the process. Ending work-in-process inventory is 50% completed as to conversion.

**Required:**

Prepare a production cost worksheet using the FIFO method. (25%)

2. Technology Solutions sells a ready-to-use software product for small businesses. The current selling price is \$300. Projected operating income for 2013 is \$490,000 based on a sales volume of 10,000 units. Variable costs of producing the software are \$120 per unit sold plus an additional cost of \$5 per unit for shipping and handling. Technology Solutions annual fixed costs are \$1,260,000.

**Required**

- (1) Calculate Technology Solutions breakeven point and margin of safety in units. (10%)
- (2) Calculate the company's operating income for 2013 if there is a 10% increase in unit sales. (5%)
- (3) For 2014, management expects that the per unit production cost of the software will increase by 30%, but the shipping and handling costs per unit will decrease by 20%. Calculate the sales revenue Technology Solutions must generate for 2014 to maintain the current year's operating income if the selling price remains unchanged, assuming all other data as in the original problem. (5%)

招生學年度	104	招生類別	碩士班
系所班別	會計與財務碩士學位學程		
科目名稱	成本與管理會計學		
注意事項	本考科可使用掌上型計算機		

3. Hammond and Jarrett provide tax consulting for estates and trusts. Their job-costing system has a single direct-cost category (professional labor) and a single indirect-cost pool (research support). The indirect-cost pool contains all the costs except direct personnel costs. All budgeted indirect costs are allocated to individual jobs using actual professional labor-hours.

**Required**

- (1) Discuss the reasons a consulting firm might use a normal costing system rather than an actual costing system. (8%)
  - (2) What might be some reasons for the firm to change from a one-pool to a multiple-pool allocation concept? (7%)
4. Meals on Wheels (MOW) operates a meal home-delivery service. It has agreements with 20 restaurants to pick up and deliver meals to customers who phone or fax orders to MOW. MOW allocates variable and fixed overhead costs on the basis of delivery time. MOW's owner, Josh Carter, obtains the following information for May 2012 overhead costs:

Meals on Wheels (May 2012)	Actual Results	Static Budget
Output units (number of deliveries)	8,800	10,000
Hours per delivery		0.70
Hours of delivery time	5,720	
Variable overhead cost per hour of delivery time		\$ 1.50
Variable overhead costs	\$10,296	
Fixed overhead costs	\$38,600	\$35,000

**Required**

- (1) Compute spending and efficiency variances for MOW's variable overhead in May 2012. (8%)
- (2) Compute the spending variance and production-volume variance for MOW's fixed overhead in May 2012. (8%)
- (3) Comment on MOW's overhead variances and suggest how Josh Carter might manage MOW's variable overhead differently from its fixed overhead costs. (9%)

招 生 學 年 度	104	招 生 類 別	碩士班
系 所 班 別	會計與財務碩士學位學程		
科 目 名 稱	成本與管理會計學		
注 意 事 項	本考科可使用掌上型計算機		

5. Southwestern Company needs 1,000 motors in its manufacture of automobiles. It can buy the motors from Jinx Motors for \$1,250 each. Southwestern's plant can manufacture the motors for the following costs per unit:

Direct materials	\$ 500
Direct manufacturing labor	250
Variable manufacturing overhead	200
Fixed manufacturing overhead	<u>350</u>
Total	<u>\$1,300</u>

If Southwestern buys the motors from Jinx, 70% of the fixed manufacturing overhead applied will not be avoided.

**Required**

- (1) Should the company make or buy the motors? (8%)
- (2) What additional factors should Southwestern consider in deciding whether or NOT to make or buy the motors? (7%)