



1. Yuntech Canning Company processes tomatoes into catsup, tomato juice, and canned tomatoes. During the summer of 2011, the joint costs of processing the tomatoes were \$420,000. There was no beginning or ending inventories for the summer. Production and sales value information for the summer is as follows:

Product	Cases	Sales Value at Splitoff Point	Separable Costs	Selling Price
Catsup	100,000	\$6 per case	\$3.00 per case	\$28 per case
Juice	150,000	8 per case	5.00 per case	25 per case
Canned	200,000	5 per case	2.50 per case	10 per case

Required: (8 分×2=16 分)

- a. Determine the amount allocated to each product if the estimated net realizable value method is used and compute the cost per case for each product. (8 分)
 - b. Determine the amount allocated to each product if the sales value at splitoff point method is used and compute the cost per case for each product. (8 分)
2. Lin Products is committed to its quality program. It works with all areas of the company to establish sound quality programs within reasonable budget guidelines. For year 2012, it has budgeted \$1,000,000 for prevention costs and \$800,000 for appraisal costs. Internal failure has a budget of \$100 per failed item, while external failure has a total budget of \$600,000. Product Testing has proposed to management a change in the year 2012 budget for a new method of testing products. If management decides to implement the new method, \$2 per unit of appraisal costs will be saved, up to a level of 200,000 tests. No additional savings are expected past the 200,000 level. The new method involves \$120,000 in training costs and \$50,000 in yearly testing supplies. Traditionally, 4% of all completed items have to be reworked. External failure costs average \$120 per failed unit. The company's average external failures are 2% of units sold. The company carries no ending inventories.



Required: (8 分×3=24 分)

- a. What is the adjusted budget for appraisal costs, assuming the new method is implemented and 800,000 units are tested during the manufacturing process in year 2012? (8 分)
 - b. How much do internal failure costs change, assuming 600,000 units are tested under the new method and it reduces the amount of unacceptable units in the manufacturing process by 40%? (8 分)
 - c. What would be the change in the external failure budget, assuming external failures are reduced by 50% and the same facts as in part (b)? (8 分)
3. The ACC Division of Taiwan Products is planning the 2011 operating budget. Average operating assets of \$1,800,000 will be used during the year and unit selling prices are expected to average \$100 each. Variable costs of the division are budgeted at \$400,000, while fixed costs are set at \$200,000. The company's required rate of return is 18%.

Required: (5 分×2=10 分)

- a. Compute the sales volume necessary to achieve a 20% ROI. (5 分)
 - b. The division manager receives a bonus of 50% of residual income. What is his anticipated bonus for 2011, assuming he achieves the 20% ROI from part (a)? (5 分)
4. Define the following terms: (5 分×3=15 分)
- a. differential cost
 - b. opportunity cost
 - c. sunk cost



5. Happy Corporation has two service departments, Service Department A and Service Department B, and two operating departments, Operating Department X and Operating Department Y.

	Service Department		Operating department	
	Service Department A	Service Department B	Operating Department X	Operating Department Y
departmental costs	\$46,560	\$56,960	\$576,650	\$415,260
allocation base A	3,000	5,000	30,000	13,000
allocation base B	2,000	1,000	15,000	15,000

The company uses the step-down method to allocate service department costs to operating departments. Service Department A costs are allocated first on the basis of allocation base A and Service Department B costs are allocated second on the basis of allocation base B.

Required: (10 分)

Allocate the service department costs to the operating departments using the step-down method. Show your calculation.

6. The YUN Manufacturing Company's costing system has two direct-cost categories: direct materials and direct manufacturing labor. Manufacturing overhead (both variable and fixed) is allocated to products on the basis of standard direct manufacturing labor-hours (DLH). At the beginning of 2011, YUN adopted the following standards for its manufacturing costs:

	Input	Cost per Output Unit
Direct materials	3 lbs. at \$5 per lb.	\$ 15.00
Direct manufacturing labor	5 hrs. at \$15 per hr.	75.00
Manufacturing overhead:		
Variable	\$6 per DLH	30.00
Fixed	\$8 per DLH	40.00
Standard manufacturing cost per output unit		<u>\$160.00</u>



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科目：成本與管理會計學

The denominator level for total manufacturing overhead per month in 2011 is 40,000 direct manufacturing labor-hours. YUN's flexible budget for January 2011 was based on this denominator level. The records for January indicated the following:

Direct materials purchased	25,000 lbs. at \$5.20 per lb.
Direct materials used	23,000 lbs.
Direct manufacturing labor	40,100 hrs. at \$14 per hr.
Total actual manufacturing overhead (variable and fixed)	\$600,600
Actual production	7,800 output units

Required: (5分×5=25分)

For the month of January 2011, compute the following variances, indicating whether each is favorable (F) or unfavorable (U). Be sure to identify each variance as favorable (F) or unfavorable (U). Show your calculation.

- Direct materials efficiency variance
- Direct manufacturing labor price variance
- Total manufacturing overhead spending variance
- Variable manufacturing overhead efficiency variance
- Production-volume variance