科目：成本與管理會計學　　　　　　　　　　　系所組：會計學系碩士班

I. (9%) Yonex Corporation has a Parts Division that does work for other Divisions in the company as well as for outside customers. The company's Machine Products Division has asked the Parts Division to provide it with 10,000 special parts each year. The special parts would require $15.00 per unit in variable production costs.

The Machine Products Division has a bid from an outside supplier for the special parts at $29.00 per unit. In order to have time and space to produce the special part, the Parts Division would have to cut back production of another part-the 10LCW that it presently is producing. The 10LCW sells for $32.00 per unit, and requires $19.00 per unit in variable production costs. Packaging and shipping costs of the 10LCW are $3.00 per unit. Packaging and shipping costs for the new special part would be only $1.00 per unit. The Parts Division is now producing and selling 40,000 units of the 10LCW each year. Production and sales of the 10LCW would drop by 20% if the new special part is produced for the Machine Products Division.

Required:

1. What is the range of transfer prices within which both the Divisions' profits would increase as a result of agreeing to the transfer of 10,000 special parts per year from the Parts Division to the Machine Products Division?
2. Is it in the best interests of Yonex Corporation for this transfer to take place? Explain.

II. (15%) Skechers Corporation uses a standard cost system to account for the costs of its one product. Material standards are 13 pounds of material at $1.40 per pound and 3 hours of labor at a standard wage rate of $14. During March, Skechers Corporation produced and sold 2,300 units. Material purchases totaled 30,100 pounds at a total cost of $42,650. Material usage totaled 29,970 pounds. Payroll totaled $97,780 for 7,140 hours worked. Skechers Corporation does not maintain inventories other than direct materials.

Required:Prepare journal entries to record the transactions:

1. direct materials purchase
2. direct materials usage
3. direct labor incurred

III. (12%) Tim Tam Candy Corporation produces and sells taffy by the bag and uses a standard cost system to collect costs related to production. The following information relates to Tim Tam' operations for last month:

1. Number of bags of taffy sold	100,000
2. Standard price of direct material (per pound)	$ 0.80
3. Standard direct labor rate per hour	$ 14.00
4. Actual quantity of direct materials purchased (in pounds)	???
5. Standard quantity of direct materials per bag (in pounds)	1.1
6. Actual quantity of direct materials used	???
7. Standard quantity of direct labor per bag (in hours)	???
8. Number of bags produced	120,000
9. Actual price paid for direct materials (per pound)	$ 0.81
10. Actual direct labor rate per hour	???
11. Actual quantity of direct labor (in hours)	13,000
12. Labor rate variance	$ 2,600 F
13. Materials quantity variance	$ 7,200 U
14. Materials price variance	$ 1,400 U
15. Labor efficiency variance	$ 19,600 F

Required:

Compute the unknown quantities above. (Numbers 4, 6, 7, and 10.)

※注意：1.考生須在「彌封答案卷」上作答。

2.本試題紙空白部分可當稿紙使用。

3.考生於作答時可否使用計算機、法典、字典或其他資料或工具，以簡章之規定為準。

科目：成本與管理會計學　　　　系所組：會計學系碩士班

IV. (25%) QuikSilver, Inc., has designed a new surfboard to replace its old surfboard line. Because of the unique design of the new surfboard, the company anticipates that it will be able to sell all the boards that it can produce. On this basis, the following incomplete budgeted income statement for the first year of activity is available:

Sales (? Boards at ? per board)	$	?
Cost of goods sold (? Boards at ? per board)		1,600,000
Gross margin		?
Selling and administrative expenses		1,130,000
Net operating income	$	?

Additional information on the new surfboard follows:

a. An investment of $1,500,000 will be necessary to carry inventories and account receivable and to purchase some new equipment. The company's required rate of return is 18% on all investments.

b. A partially completed standard cost card for the new surfboard follows:

	Standard Quantity or Hours	Standard Price or Rate	Standard Cost
Direct materials	6 feet	$ 4.50 per foot	$ 27
Direct labor	2 hours	? per hour	?
Manufacturing overhead	? hours	? per hour	?
Total standard cost per surfboard			$?

c. The company will employ 20 workers to make the new surfboards. Each will work a 40-hour week, 50 weeks a year.

d. Other information relating to production and costs follows:

Variable manufacturing overhead (per board)	$5
Variable selling expense (per board)	$10
Fixed manufacturing overhead (total)	$600,000
Fixed selling and administrative expenses (total)	$?
Number of boards produced and sold (per year)	?

e. Overhead costs are allocated to production on the basis of direct labor-hours.

Required:

1. Complete the standard cost card for a single surfboard.
2. Assume that the company uses the absorption costing approach to cost-plus pricing.
   a. Compute the markup that the company needs on the surfboards to achieve an 18% return on investment (ROI).
   b. Using the markup you have computed, prepare a price quotation sheet for a single surfboard.
   c. Assume, as stated, that the company is able to sell all of the surfboards that it can produce. Complete the income statement for the first year of activiy, and then compute the company's ROI for the year.
3. Assuming that direct labor is a variable cost, how many units would the company have to sell at the price you computed in (2) above to achieve the 18% ROI? How many units would have to be sold to just break even?

V. (15%) Giant Bicycles Corporation's management reports that its average delivery cycle time is 14.0 days, its average throughput time is 6.3 days, its manufacturing cycle efficiency (MCE) is 0.27, its average move time is 0.1 day, and its average queue time is 3.9 days.

Required:

1. What is the wait time?
2. What is the process time?
3. What is the inspection time?

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科目：成本與管理會計學　　　　　　系所組：會計學系碩士班

VI. (12%) Power Max Company produces a single product. The cost of producing and selling a single unit of this product at the company's normal activity level of 60,000 units per month is as follows:

Direct materials	$34.00	Fixed manufacturing overhead	$21.30
Direct labor	$4.00	Variable selling & administrative expense	$2.70
Variable manufacturing overhead	$2.00	Fixed selling & administrative expense	$7.00

The normal selling price of the product is $79.80 per unit.

An order has been received from an overseas customer for 2,000 units to be delivered this month at a special discounted price. This order would have no effect on the company's normal sales and would not change the total amount of the company's fixed costs. The variable selling and administrative expense would be $0.30 less per unit on this order than on normal sales.Direct labor is a variable cost in this company.

Required:

1.Suppose there is ample idle capacity to produce the units required by the overseas customer and the special discounted price on the special order is $71.60 per unit. By how much would this special order increase (decrease) the company's net operating income for the month?

2.Suppose the company is already operating at capacity when the special order is received from the overseas customer. What would be the opportunity cost of each unit delivered to the overseas customer?

3.Suppose there is not enough idle capacity to produce all of the units for the overseas customer and accepting the special order would require cutting back on production of 700 units for regular customers. What would be the minimum acceptable price per unit for the special order?

VII.(12%) HOLA Draperies makes custom draperies for homes and businesses. The company uses an activity-based costing system for its overhead costs. The company has provided the following data concerning its annual overhead costs and its activity cost pools.

Overhead costs:

Production overhead	$140,000
Office expense	140,000
Total	$280,000

Distirbution of resource consumption:

	Activity Cost Pools			
	Making Drapes	Job Support	Other	Total
Production overhead	60%	20%	20%	100%
Office expense	15%	55%	30%	100%

The "Other" activity cost pool consists of the costs of idle capacity and organization-sustaining costs. The amount of activity for the year is as follows:

Activity Cost Pool	Annual Activity
Making Drapes	2,000 yards
Job Support	140 jobs
Other	Not applicable

Required:

1. Prepare the first-stage allocation of overhead costs to the activity cost pools by filling in the table below:

	Making Drapes	Job Support	Other	Total
Production overhead				
Office expense				
Total				

2. Compute the activity rates (i.e., cost per unit of activity) for the Making Drapes and Job Support activity cost pools by filling in the table below:

	Making Drapes	Job Support	Other	Total
Production overhead				
Office expense				
Total				

3. Prepare an action analysis report in good form of a job that involves making 67 yards of drapes and has direct materials and direct labor cost of $2,030. The sales revenue from this job is $6,600. For purposes of this action analysis report, direct materials and direct labor should be classified as a Green cost; production overhead as a Red cost; and office expense as a Yellow cost.

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