KARACHI UNIVERSITY BUSINESS SCHOOL
UNIVERSITY OF KARACHI
FINAL EXAMINATION, DEC 2010: AFFILIATED COLLEGES
MANAGERIAL ACCOUNTING: BA (H) – 562
BS-VI

Date: 15 Jan 2011 Max Marks: 60
Time Allowed: 3 Hours

Instruction: Attempt ALL questions.

Q # 1: Speedy Parcel Service operates a fleet of delivery trucks in a large metropolitan area. A careful study by the company's cost analyst has determined that if a truck is driven 120000 miles during a year, the average operating cost is 11.6 cent per mile. If a truck is driven only 80000 miles during a year, the average operating cost increases to 13.6 cent per mile.

Required:
1. Using the high-low method, estimate the variable and fixed cost elements of the annual cost of truck operations.
2. Express the variable and fixed cost in the form Y = a + b X.
3. If a truck were driven 100000 miles during a year, what total cost would you expect to be incurred?

Q # 2: Super Sales Company is the exclusive distributor for a revolutionary book bag. The product sells for $60 per unit and has a CM ratio of 40%. The company's fixed expenses are $360000 per year.

Required:
1. What are the variable expenses per unit?
2. Using the equation method:
   a) What is the break-even point in units and in sales dollar?
   b) What sales level is required to earn an annual profit of $90000?
   c) Assume that through negotiation with the manufacturer the Super Sales Company is able to reduce its variable expenses by $3 per unit. What is the company's new break-even point in units and in sales dollars?
3. Repeat (2) above using the contribution margin method.

Q # 3: Maxwell Company manufactures and sells a single product. The following costs were incurred during the company's first year of operations:

	Variable Cost per units	Fixed Cost per year
Direct Material	$18	----
Direct labour	7	----
Manufacturing overhead	2	$160000
Selling and administrative	5	$ 110000

During the year, the company produced 20000 units and sold 16000 units. The selling price of the company's product is $50 per unit.

Required:

Assume that the company uses the **Absorption Costing** and **Variable Costing**.
1. Compute the unit product cost.
2. Prepare an income statement for the year.

Q # 4: Hollowell Audio, Inc. manufactures military-specification compact discs. The company uses standards to control its costs. The labour standards that have been set for one disc are as follows:

Standard Hours	Standard Rate per Hour	Standard Cost
24 minutes	$6	$2.4

During July, 8500 hours of direct labour time were recorded to make 20000 discs? The direct labour cost totalled $49300 for the month.

Required:

1. What direct labour cost should have been incurred to make the 20000 discs? By how much does this differ from the cost that was incurred?
2. Break down the difference in cost from (1) above into a labour rate variance and a labour efficiency variance.
3. The budgeted variable manufacturing overhead rate is $4 per direct labour-hour. During July, the company incurred $39100 in variable manufacturing overhead cost. Compute the variable overhead spending and efficiency variance for the month.

Q # 5: Climate-Control, Inc. manufactures a variety of heating and air-conditioning units. The company is currently manufacturing all of its own component parts. An out-side supplier has offered to sell a thermostat to Climate-Control for $20 per unit. To evaluate this offer, Climate-Control Inc. has gathered the following information relating to its own cost of production the thermostat internally:

	Per Unit	**15000 Units per year**
Direct Materials	$6	$90000
Direct Labour	8	120000
Variable manufacturing overhead	1	15000
Fixed manufacturing overhead, tracable	5*	75000
Fixed manufacturing overhead, common, but allocated	10	150000

*40% supervisory salaries; 60% depreciation of special equipment (no resale value).

Required:

1. Assuming that the company has no alternative use for the facilities now being used to produce the thermostat, should the outside supplier's offer be accepted? Show all computations.
2. Suppose that if the thermostats were purchased, Climate-Control, Inc. could use the freed capacity to launch a new product. The segment margin of the new product would be $65000 per year. Should Climate-Control, Inc. accept the offer to buy the thermostats from the outside supplier for $20 each? Show computations.

Q # 6: The cost formula for Swan Company's manufacturing overhead costs are given below. The costs cover a range of 8000 to 10000 machine-hours.

Overhead Costs	**Cost Formula**
Supplies	$0.20 per machine-hour
Indirect labour	$10000 plus $0.25 per machine hour
Utilities	$0.15 per machine-hour
Maintenance	$7000 plus $0.10 per machine-hour
Depreciation	$8000

Required:

Prepare a flexible budget in increments of 1000 machine-hours, Include all costs in your flexiablebudget.

End of Paper

(1)

KARACHI UNIVERSITY BUSINESS SCHOOL

University of Karachi

FINAL EXAMINATION, JUNE 2010: AFFILIATED COLLEGES
MANAGERIAL ACCOUNTING: BA (H) – 562
BS – VI

Date: July 7, 2010 Max Time: 3 Hrs
Instruction: Attempt All Questions. Max Marks: 60

Problem # 1: The following selected data were taken from the accounting records of Manitoba Manufacturing Company. The company uses direct-labour hours as its cost driver for the overhead cost:
Marks 12

Month	Direct Labour	Manufacturing Overhead
January	26000	$ 749250
February	25000	720000
March	28000	772500
April	23000	681000
May	30000	775500
June	34000	879000

June's costs consisted of machine supplies ($153000), depreciation ($22500) and plant maintenance ($703500). These cost exhibit the following respective behaviour; variable, fixed and semi variable.

Required:

1. Determine the machine supplies cost and depreciation for April.
2. Using the high-low method, analyze Manitoba Manufacturing Company's plant maintenance cost and calculate the monthly fixed portion and the variable cost per direct labour-hour.
3. Assume that present cost behaviour patterns continue into the latter half of the year. Estimate the total amount and manufacturing overhead the company can expect in October if 29500 direct labour hours are worked.

Problem # 2: Surreal Sound, Inc, manufactures and sells compact disks. Price and cost data are as follows:
Marks 12

Selling Price per unit (package of two CDs)$ 25, during the year company sales volume 140,000 units.

Variable cost per unit		
Direct Material	$	8.20
Direct Labour		4.00
Manufacturing Overhead		6.00
Selling expenses		1.60
Total variable costs	$	19.80
Annual Fixed costs:		
Manufacturing overhead	$	288,000
Selling and administrative		414,000
Total fixed costs		702,000

Required:

1. What is Surreal Sound's break-even point in units?
2. What is the company's break –even point in sales dollars?
3. How many units would Surreal Sound have to sell in order to earn $ 390,000?
4. What is the firm's margin of safety?
5. Management estimates that direct-labour costs will increase by 10 percent next year. How many units will the company have to sell next year to reach its break-even point?
6. If the company's direct-labour costs do increase by 10 percent, what selling price per unit of product must it charge to maintain the same contribution- margin ratio?

Problem #3: Answer the following questions: **Marks 12**

1. What is the difference between the contribution approach to the income statement and the traditional approach to the income statement?
2. Explain how a shift in the sales mix could result in both a higher break-even point and a lower net income.
3. Under absorption costing, how is it possible to increase net operating income without increase sales?
4. If variable manufacturing overhead is applied to production on the basis of direct labor-hours and the direct labor efficiency variance is unfavorable, will the variable overhead efficiency variance be favorable or unfavorable, or could it be either? Explain.

Problem #4: Altoona Valve Company's planned production for the year just ended was 20000 units. This production level was achieved and 21000 units were sold. Other data follows: **Marks 12**

Direct Material used	$ 300000
Direct Labour incurred	150000
Fixed Manufacturing overhead	210000
Variable Manufacturing overhead	100000
Fixed Selling and Administrative expenses	175000
Variable Selling and Administrative expenses	60000
Finished Goods Inventory 1, Jan.	2000 units

Last year company sold 22000 units where as there were no finished goods opening balance. The cost per unit remained the same under variable costing in the current year as in the previous year. There were no work in process inventories at the beginning or end of the year.

Required:

1. What would be Altoona Valve Company's finished goods inventory cost on 31 Dec. Under the variable-costing method?
2. Calculate Product cost under Absorption costing for last and current years, and state the reason if it is equal in the both the years?
3. Which costing method, absorption or variable costing, would show a higher operating income for the year? By what amount?

Q5(a) Crystal Telecom has budget the sales of its innovative mobile phone over the next four months as follows: **Marks 4**

	Sales in Units
July................	30,000
August............	45,000
September........	60,000
October...........	50,000

The company is now in the process of preparing a production budget for the third quarter. Past experience has shown that end-of-month inventories of finished goods must equal 10% of the next month's sales. The inventory at the end of June was 3,000 units.

Required:

- Prepare a production budget for the third quarter showing the number of units to be produced each month and for the quarter in total.

Q5(b) The direct labor budget of Krispin Corporation for the upcoming fiscal year contains the following details concerning budgeted dire labor-hours. **Marks 8**

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Budgeted direct labor-hours	5,000	4,800	5,200	5,400

The company's variable manufacturing overhead rate is $ 1.75 per direct labor-hour and the company's fixed manufacturing overhead is $ 35,000 per quarter. The only noncash item included in the fixed manufacturing overhead is depreciation, which is $ 15,000 per quarter.

Required:

- Construct the company's manufacturing overhead budget for the upcoming fiscal year.
- Compute the company's manufacturing overhead rate (including both variable and fixed manufacturing overhead) for the upcoming fiscal year. Round off to the nearest whole cent.