NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

DEPARTMENT OF ACCOUNTING

FIRST SEMESTER EXAMINATION: APRIL 2009

MANAGEMENT AND COST ACCOUNTING II CAC 4105

TIME ALLOWED: 3 HOURS

Instructions to candidates:

1. ANSWER ALL QUESTIONS

QUESTION 1: (35 marks)

(a) Jewell Company uses a fixed or forecast budget to measure its performance against the objectives set by the forecast and to help in controlling costs. At the end of a month, management received the following report which compares actual performance with budgeted figures;

ITEM OF COST	**BUDGET**	**ACTUAL**
Units produced	75000	73500
Direct Materials	$39 000	$37 020
Direct Labour	6 000	5 950
Factory Supplies	1 500	1 550
Indirect Labour	726	710
Repairs and maintenance	2 250	2 300
Insurance	355	350
Rent	2 000	2 000
Depreciation	2 200	2 200
Total	$54 031	$52 080

REQUIRED

What conclusions can be drawn from this report? Indicate weaknesses, if any, of this type of budget. ***[16 Marks]***

(b) Production costs of a factory for a year are as follows;

	$
Direct wages	90 000
Direct materials	120 000
Production overheads – fixed	40 000
Variable	60 000

During the forthcoming year it is anticipated that;

(i) The average rate for direct labour remuneration will fall from $ 0, 90 per hour to $ 0, 75 per hour.

(ii) Production efficiency will be reduced by 5%.

(iii) Price per unit of direct material and of other materials and services which comprise overheads will remain unchanged; and

(iv) Direct labour hours will increase by 33 1/3 % .

REQUIRED:

Draw up a budget and compute a factory overhead rate the overhead rate being absorbed on direct wage basis. ***(19 Marks)***

QUESTION 2 **(35 marks)**

(a) The following particulars are obtained from costing records of a factory:

	Product A (Per unit)	Product b (Per unit)
	$	$
Selling Price	200	500
Materials ($20 per litre)	40	160
Labour ($10 per hour)	50	100
Variable overhead	20	40
Total fixed overheads -	$15 000	

REQUIRED:

Comment on the profitability of each product when:

i. Raw material is in short supply. **(3 marks)**
ii. Production capacity is limited. **(3 marks)**
iii Sales quantity is limited. **(3 marks)**
iii. Sales value is limited. **(3 marks)**
iv. Only 1000 litres of raw material is available for both the products in total and maximum sales quantity of each product is 300 units. **(4 marks)**

b) A factory engaged in manufacturing plastic buckets is working at 40% capacity and produces 10 000 buckets per annum.

The present cost break-up for one bucket is as under:

Material	$10
Labour	3
Overheads	5 (60% fixed)

The selling price is $20 per bucket.

If it is decided to work the factory at 50% capacity, the selling price falls by 3%. At 90% capacity, the selling price falls by 5% accompanied by similar fall in the price of material.

REQUIRED:
Calculate profit at 50% and 90% capacities and also calculate break-even points for the same capacity productions. **(19 marks)**

QUESTION 3 (30 marks)
RV Industries manufactures and sells recreation vehicles. The company has eight divisions strategically located near major markets. Each division has a sales force and two to four manufacturing plants. These divisions operate as autonomous profit centers responsible for purchasing, operations and sales.

Dale Collins, the corporate controller, described the divisional performance measurement systems as follows:
"We allow the divisions to control the entire operation from the purchase of raw materials to the sale of the product. We at corporate headquarters, only get involved in strategic decisions such as developing new product lines. Each division is responsible for meeting its market needs by providing the right products at a low cost on a timely basis. Frankly, the divisions need to focus on cost control, delivery and services to customers in order to become more profitable.

"While we give the division's considerable autonomy, we watch their monthly income statements very closely. Each month's actual performance is compared with the budget in considerable detail. If the actual sales or contribution margin is more than 4 or 5% below budget we jump on the division immediately. I might add that we don't have much trouble getting their attention. All of the management people at the plant and division level can add appreciably to their annual salaries with bonuses if their actual profit is considerably greater than budget."

The budgeting process begins in August when division sales managers after consulting with their sales personnel, estimate sales for the next calendar year. These estimates are sent to plant managers who use the sales forecasts to prepare production estimates. At the plants, production statistics, including raw material quantities, labour hours, production schedules and output quantities are developed by operating personnel. Using the statistics prepared by the operating personnel the plant accounting staff determines costs and prepares the plants budgeted variable cost of goods sold and other plant expenses for each month of the coming calendar year.

In October each division's accounting staff combines plant budgets with sales estimates and adds additional division expenses. "After the divisional management is satisfied with the budget," said Collins. "I visit each division to go over their budget and make sure it is in line with corporate strategy and projections. I really emphasis the sales forecasts because of the volatility in the demand for our product. For many years, we lost sales to our competitors because we didn't project high enough production and sales, and we couldn't meet the market demand.

More recently, we were caught with large excess inventory when the bottom dropped out of the market for recreational vehicles."

"I generally visit all eight divisions during the first two weeks in November. After that the division budgets are combined and reconciled by my staff and they are ready for approval by the board of directors in early December.

"One complaint we have had from plant and division management is that they are penalized for circumstances beyond their control. For example they failed to predict the recent sales decline. As a result, they did not make their budget and, of course, they received no bonuses. However, I point out that they are well rewarded when they exceed their budget. Further more, they provide most of their information for the budget so it's their own fault if the budget is too optimistic."

REQUIRED:
Discuss the following:

i. Biases which corporate management should expect in the communications of budget estimates prepared by its division and plant personnel. **(7 marks)**
ii. Sources of information which corporate management can use to monitor the budget estimates prepared by its divisions and plants **(8 marks)**
iii. Services which corporate management could offer the divisions to aid them in their budget development without appearing to interfere with division budget decisions. **(7 marks)**
iv. Factors which corporate management should consider in deciding whether or not it should become more involved in the budget process. **(8 marks**)

THE END
GOOD LUCK