**Problem 1 – chapter 19**

**Part A**

The Best Company uses absorption costing for external reporting and variable costing for internal managers. In January 2014, their first month of operation, the accountant collected the following data;

Beginning inventory 0 units

Standard and actual production volume 2,000 units

Sales volume 1,600 units @ $80 per unit

Standard variable costs (Prime costs $24 + $8 variable overhead) $32 per unit

Budgeted fixed production overhead $30,000

Selling and administrative costs all fixed $5,000

Required: (a) Prepare **both** the variable and the absorption costing income statements for January (b) Explain any difference between the net incomes (if any) under both methods.

**Part B**

The Steel Company produces turpentine and alcohol by a joint process. Joint costs amount to $120,000 per batch of output. Each batch totals 10,000 gallons of which 7,500 gallons is turpentine and 2,500 gallons is alcohol. Both products are processed further without gain or loss in volume. Separable processing costs are turpentine $2 per gallon and alcohol $3 per gallon. Turpentine sells for $20 per gallon and alcohol for $10 per gallon.

Required: Calculate the cost of turpentine if alcohol is considered a by-product and the gross margin from its sale is considered a reduction of the turpentine cost.

**Problem 2 – chapter 20**

The Tesa Bakery LLC makes cookies and muffins in batches of 100. Two of its principal ingredients are flour and sugar. Following are the standard costs per batch that apply:

Flour Sugar Direct Labor

Cookies 10 lbs. @ $2 per lb. 6 lbs. @ $1.50 per lb. 2 hrs. @ $10 per hr.

Muffins 15 lbs. @ $2 per lb. 9 lbs. @ $1.50 per lb. 3 hrs. @ $10 per hr.

During June 300 batches of cookies and 250 batches of muffins were made. Also, 7,000 pounds of flour and 3,500 pounds of sugar were purchased at $2.50 and $1.25 per pound respectively. All of these materials were used in June’s production. The production required 1,400 hours at $10.50 per hour.

Required: (a) Calculate the material price and efficiency variances for the month (b) Calculate the labor rate and efficiency variances for the month. (c) How would your answer change if you had been told that June’s planned productivity was 400 batches of cookies and 400 batches of muffins?

**Problem 3**

Crosscut Corporation makes and sells four products. September’s budgeted and actual sales and margins for these products were as follow:

Budget Actual

Unit Sales Unit Margin Unit Sales Unit Margin

Product 1 2,500 $12.75 2,250 $12.50

Product 2 3,000 14.50 3,410 13.60

Product 3 1,500 10.20 1,580 9.50

Product 4 5,000 8.50 4,010 9.00 12,000 $11.10 11,250 $11.16

Required: Calculate the gross margin mix, selling price and sales volume variances as well as the net gross margin variance.