**INTERNATIONAL ISLAMIC UNIVERSITY CHITTAGONG**

Department of Business Administration

Program: MBA

Mid Term Examination, Autumn-2019

Course Code: ACC-5513; Course title: Strategic Cost Accounting

Time: 2 Hours Full Marks: 30

Answer any three of the following questions.

**Question No- 1:** **10**

Write Short Notes on: (a) Cost Accounting (b) Management Accounting (c) Financial Accounting (d) Strategic Cost Management (e) Strategic Cos Accounting.

**Question No-2:** **10**

During April 2019, Pizza Hut used 130 pounds of material to manufacture 125 Pizzas. The firm paid $6.433 per pound during that month to purchase material. Pizza Hut spent 32 direct labor-hours in April, at an average cost of $9.125 per labor hour. During April 2019, Pizza Hut budgeted $105 for fixed overhead, based on 18 machine hours. The actual variable overhead for that month is $210 and actual fixed overhead is $110. The following cost sheet shows the standard cost of producing one pizza:

| Standard Cost Sheet for One Pizza | | | | |
|---|---|---|---|---|
| | Cost Driver | Standard Cost for Per Unit | Standard Used Per pizza | Standard Cost Per Pizza |
| Direct Material | Pounds | $6 per pound | 1 pound | $6 |
| Direct Labor | Hours | $8 per hour | 0.25 hour | $2 |
| Variable Overhead | Labor Hours | $5 per hour | 0.25 hour | $1.25 |
| Fixed Overhead | Machine Hours | $5.833 | 0.15 hour | $0.875 |
| Total Standard Cost Per Pizza | | | | **$10.125** |

**Required** Compute for April, Pizza Hut's:

(a) Material Cost Variance including Price and Usage variances.

(b) Labor Cost Variance including Direct Labor Rate and Efficiency variance.

(c) Variable Overhead Cost Variance including Expenditure and efficiency variance.

(d) Fixed Overhead Cost Variance including Expenditure and Volume variance.

**Question No-3:** **4+6 =10**

(a) What is Sales Life Cycle? How price of the product changes in the four different phases of sales life cycle?

(b) A product has a life cycle of 5 years. The cost of each year is shown below:

| Period | Estimated Production Volume | Fixed Cost Per Annum ($) | Variable Cost @ $2 Per Unit |
|---|---|---|---|
| 1 | 10,000 | 50,000 | 20,000 |
| 2 | 20,000 | 50,000 | 40,000 |
| 3 | 100,000 | 50,000 | 2,00,000 |
| 4 | 30,000 | 50,000 | 60,000 |
| 5 | 5,000 | 50,000 | 10,000 |
| | 1,65,000 | | |

(I) Calculate cost per period and cost of the product over its life cycle.

(II) If the desired percentage return on life-cycle costs estimated in requirement b, is 15 percent, then what would be the price of the product?

**Question No- 4:** **3+7 =10**

(a) Define target costing. What options a firm has to reduce cost to a target level?

(b) Westerly Cosmetics manufactures and sells a variety of makeup and beauty products. The company has developed its own patented formula for a new anti-aging cream. The company president wants to make sure the product is priced competitively because its purchase will also likely increase sales of other products. The company anticipates that it will sell 400,000 units of the product in the first year with the following estimated costs:

Product design and licensing $1,700,000
Direct materials 4,000,000
Direct manufacturing labor 1,600,000
Variable manufacturing overhead 400,000
Fixed manufacturing overhead 2,500,000
Fixed marketing 3,000,000

**(i)** The company believes that it can successfully sell the product for $45 a bottle. The company's target operating income is 30% of revenue. Calculate the target full cost of producing the 400,000 units. Does the cost estimate meet the company's requirements? Is value engineering needed?

**(ii)** A component of the direct materials cost requires the nectar of a specific plant in South America. If the company could eliminate this special ingredient, the materials cost would decrease by 25%. However, this would require design changes of $300,000 to engineer a chemical equivalent of the ingredient. Will this design change allow the product to meet its target cost?

**(iii)** The company president does not believe that the formula should be altered for fear it will tarnish the company's brand. She prefers that the company become more efficient in manufacturing the product. If fixed manufacturing costs can be reduced by $250,000 and variable direct manufacturing labor costs are reduced by $1 per unit, will Westerly achieve its target cost?

**(iv)** Would you recommend the company to follow the proposed solution in requirement b or requirement c? Why?