Assignment Week 2 – Home Work

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Due: **(Click on the assignment in blackboard to determine this)**

Part I **(10 points)**

The Sompter Meter Company has improved its production planning schedule and would like to go this over with you from a financial standpoint. The four products are made and their costs are shown below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Product** | **Raw Material Cost** | **Price** | **Minimum Demand** | **Maximum Demand** |
| **($/Unit)** | **($/Unit)** | **(Units per Month)** | **(Units per Month)** |
| Product A | $1.20 | $8.00 | 500 | 800 |
| Product B | $2.50 | $12.00 | 250 | 400 |
| Product C | $3.50 | $25.00 | 50 | 100 |
| Product D | $4.50 | $30.00 | 30 | 50 |

The time taken to make each product is also shown below:

|  |  |  |
| --- | --- | --- |
| **Time Taken for Assembly** | | |
| Product A | 3 | mins/unit |
| Product B | 6 | mins/unit |
| Product C | 15 | mins/unit |
| Product D | 18 | mins/unit |

Monthly Overhead costs as well as the number of workers in the facility and their hourly pay rates are given in the following table below:

|  |  |  |
| --- | --- | --- |
| **Overhead Costs (Monthly)** | Number of Workers | Hourly Pay rate |
| $5,000.00 | 3 | $12.00 |

The production plan calls for **product A -700, B-350, C-80 and D-42** to be made. Calculate the following using the **traditional method** of accounting:

1. How long does it take for each product to be made based on the production plan?
2. Raw Material Cost per product?
3. Labor Costs of Plan per product?
4. Allocated overhead costs per product? (Please use the fractional labor hours here to determine this)
5. Total cost per product?
6. Total revenue generated by product?
7. Profit per product?
8. Unit Profit per product?
9. Total Profit Generated by production plan?

Part II **(10 points)**

Activity Based Costing

The overhead cost is now being allocated based on the following table below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Category** | **Plant and Equipment** | **Management** | **Purchasing** | **Sales and Shipping** |
| Total Cost | $700.00 | $2,200.00 | $600.00 | $1,500.00 |
| Cost Allocation | Square feet | Labor hours | Purchase orders | Customer orders |
| Total units used | **10000** | **2400** | **130** | **91** |
| Product A | 1000 | 500 | 10 | 5 |
| Product B | 2000 | 450 | 35 | 20 |
| Product C | 3000 | 690 | 60 | 41 |
| Product D | 4000 | 760 | 25 | 25 |

Determine the following based on the original production plan (**product A -700, B-350, C-80 and D-42**):

1. Plan and equipment cost per product?
2. Management costs per product?
3. Purchasing Costs?
4. Sales and shipping cost?
5. Total allocated overhead cost?
6. Profit per product?
7. Unit profit per product?
8. Total Profit of production plan?
9. Do you have any suggestions for the Sompter Meter Company’s production plan?