**Sell or process further** (adapted from CMA exam) The department of Biggs Company is considering a proposal to install a third production department within its exiting factory building. With the company’s present production setup, 200.000 pounds per year of direct materials pass through Department 1 to Produce 100,000 pounds each of the materials A and B. Material A then passes through Department 2 to yield 100,000 pounds of product C. One hundred thousands pounds of material B are presently being sold “as is” at a price of $20.25 per pound.

The costs for Biggs Company are as follows:

*Cost per pound*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Department 1  ( material A and B)a | Department 2  (Product C)a | (Material B)a |
| Prior Department cost ……………………………………  Direct Material…………………………………………………  Direct Labor………………………………………………………  Variable Overhead……………………………………………  Fixed Overhead:  Direct (Total = $675,000)…………………………… | $ -  21.00  7.00  3.00  2.25  $33.25 | $33.25  -  12.00  5.00  2.25  $52.50 | $33.25  -  -  -  -  $33.25 |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

The proposed department 3 would process Material B into Product D. One pound of Material B yields one pound of product D. Any quantity of Product D can be sold for $30 per pound. Costs under this proposal are as follows.

|  |  |  |
| --- | --- | --- |
| Department 1  (material A and B)a | Department 2  (Product C)a | (Material B)a |

Prior Department cost …………………………………… $ - $33.25 $33.25

Direct Material………………………………………………… 21.00 --- ---

Direct Labor……………………………………………………… 7.00 12.00 5.50

Variable Overhead…………………………………………… 3.00 3.00 2.00

Fixed Overhead:

Direct (Total = $850,000)…………………………… 2.25 2.25 1.75

$33.25 $52.50 $42.50

If sales and production levels are expected to remain constant in the foreseeable future, if these cost estimates are expected to be true, and if there are no foreseeable alternative uses for the available factory space, should Biggs Company produce Product D? Show calculations to support your answer.