

**Aggregate planning**

**Quant 610**

Aggregate planning for an automobile glass producer manufacturer “Cornwell”. POM

Using three aggregate planning strategies to analyze

1) Chase strategy

2) Level scheduling and

3) mixed strategy.

**forecasted table**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Week** |  | **Demand** | **Week** |  | **Demand** |
| April | 15 | 1,829 | November | 4 | 1,864 |
|  | 22 | 1,820 |  | 11 | 1,989 |
|  | 29 | 1,887 |  | 18 | 2,098 |
| May | 6 | 1,958 |  | 25 | 2,244 |
|  | 13 | 2,011 | December | 2 | 2,357 |
|  | 20 | 2,063 |  | 9 | 2,368 |
|  | 27 | 2,104 |  | 16 | 2,387 |
| June | 3 | 2,161 |  | 23 | 2,402 |
|  | 10 | 2,258 |  | 30 | 2,418 |
|  | 17 | 2,307 | January | 6 | 2,417 |
|  | 24 | 2,389 |  | 13 | 2,324 |
| July | 1 | 2,434 |  | 20 | 2,204 |
|  | 8 | 2,402 |  | 27 | 2,188 |
|  | 15 | 2,385 | February | 3 | 2,168 |
|  | 22 | 2,330 |  | 10 | 2,086 |
|  | 29 | 2,323 |  | 17 | 1,954 |
| August | 5 | 2,317 |  | 24 | 1,877 |
|  | 12 | 2,222 | March | 3 | 1,822 |
|  | 19 | 2,134 |  | 10 | 1,803 |
|  | 26 | 2,065 |  | 17 | 1,777 |
| September | 2 | 1,973 |  | 24 | 1,799 |
|  | 9 | 1,912 |  | 31 | 1,803 |
|  | 16 | 1,854 | April | 7 | 1,805 |
|  | 23 | 1,763 |  |  |  |
|  | 30 | 1,699 |  |  |  |
| October | 7 | 1,620 |  |  |  |
|  | 14 | 1,689 |  |  |  |
|  | 21 | 1,754 |  |  |  |
|  | 28 | 1,800 |  |  |  |

**Chase Strategy**

For this strategy, we have found through analysis as per the following table:

|  |  |  |  |
| --- | --- | --- | --- |
| **Regular Time production** | 96792 | 0 | 0 |
| **Overtime production** | 7047 | 8 | $56,376 |
| **Subcontracting** | 3705 | 10 | $37,050 |
| **Ending Inventory** | 0 | 0 | 0 |
| **Hiring** | 547 | 5.63 | $3,079 |
| **Firing** | 547 | 15.73 | $8,604 |
| **Total cost** |  |  | **$105,109** |

**Level plan**

Steady production, production is unified

No hiring nor firing the firm has to change the inventory level to reach the demand forecast demand forecast

**Breakdown of costs**

|  |  |  |  |
| --- | --- | --- | --- |
| **Regular time production** | 96792 | $0 | 0$ |
| **Overtime production** | 6023 | $8 | $48184 |
| **Subcontracting** | 3335 | $10 | $33350 |
| **End inventory** | 11034 | $0.12 | $1324.08 |
| **Total** |  |  | **$82,858** |

**Mixed strategy**

it combines both Chase and level plan strategies overtime and subcontracting are used in this strategy to supply the demand

**Conclusion**

The level plan came up with total much less than the chase plan as result for these calculation the Cornwell glass firm should go for it