Arunima Singh Thakur, 180905218, 31, C, Computer Science, EEFM Assignment 1

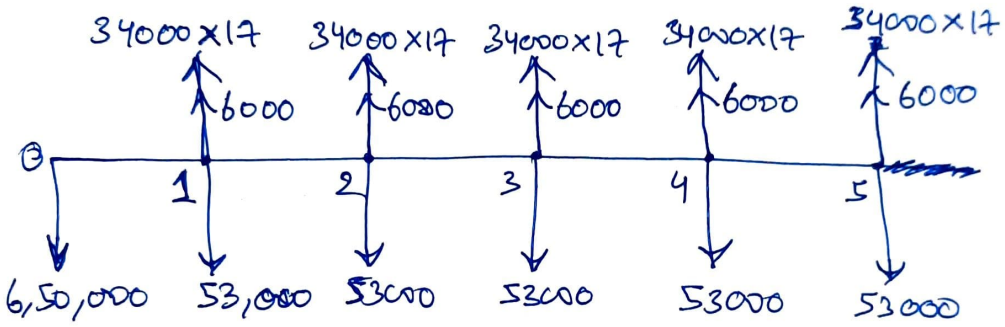
Registration No. ends with 8 So question no. 5

Question 5

- Selling price per kg after installation = $17
- Production after installation = 34,000
- Saving from employee = $500 per month
- Useful life = 5 year
- Maintenance costs = 53000, i = 12%

$$i_{eff} = \left(1 + \frac{12\%}{12}\right)^{12} - 1 = (1.01)^{12} - 1 = 12.6\%$$

So,



So,

each year total CF is = 34000 x 17 + 6000 − 53000

= 5,31,000

Now P = A(P/A, 12.6%, 5)

$$= 5{,}31{,}000\left[\frac{(1.126)^5 - 1}{0.126(1.126)^5}\right]$$

$$= \frac{3413806.39}{(1.126)^5}$$

= $ 18,86,080

So, the maximum amount we can spend on the new process control system is $ 18,86,080