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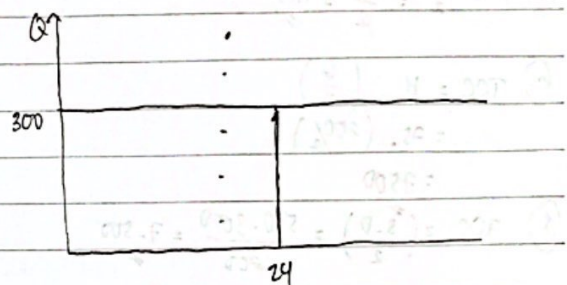
NIM : 19.12.1332

Kelas : 19-SIO6

- ① Diketahui $D = 4.500$ $p = 800$
 $S = 400$
 $H = 5\% \times 800 = 40$

a. $EOQ (Q) = \sqrt{\frac{2 \cdot S \cdot D}{H}}$
 $= \sqrt{\frac{2 \cdot 400 \cdot 4500}{40}}$
 $= \sqrt{\frac{3.600.000}{40}}$
 $= \sqrt{90000} = 300$

② Bagan persediaan



b. Persediaan maksimal = 300

c. Rata-rata persediaan (FA) = $\frac{Q}{2} = \frac{300}{2} = 150$

d. Jumlah pesanan / th = $\frac{D}{Q} = \frac{4.500}{150} = 15$ kali

e. Jarak pemesanan (1 th = 360 hari) = $\frac{360}{15} = 24$ hari

f. $TCC = H \cdot \left(\frac{Q}{2}\right)$
 $= 40 \cdot \left(\frac{300}{2}\right)$
 $= 6.000$

g. $TCC = \left(\frac{S \cdot D}{Q}\right) = \frac{400 \cdot 4.500}{300} = 6.000$

h. $TIC = TCC + TCC$
 $= 6.000 + 6.000 = 12.000$

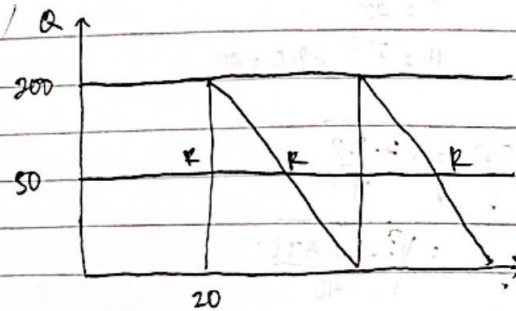
i. Total biaya/unit^(m) = $P \cdot D$
 $= 800 \cdot 4.500 = 3.600.000$

j. Total cost = $PD + TIC$
 $= 3.600.000 + 12.000$
 $= 3.612.000$

② Diketahui $D = 3000$ $H = 7,5\% \times 1000$
 $S = 500$ $= 75$
 $P = 1000$ $L = 5 \text{ hari}$

① $EOQ (Q) = \sqrt{\frac{2 \cdot S \cdot D}{H}}$
 $= \sqrt{\frac{2 \cdot 500 \cdot 3000}{75}}$
 $= \sqrt{40.000} = 200$

③ Bagan pencahangan



④ $A = \frac{Q}{2} = \frac{200}{2} = 100$

⑤ $TCC = H \cdot \left(\frac{Q}{2}\right)$
 $= 75 \cdot \left(\frac{200}{2}\right)$
 $= 7500$

⑥ $TOC = \left(\frac{S \cdot D}{Q}\right) = \frac{500 \cdot 3000}{200} = 7.500$

⑦ $TIC = TCC + TOC$
 $= 7.500 + 7.500 = 15.000$

⑧ total biaya / unit = $P \cdot D$
 $= 1000 \cdot 3000$
 $= 3.000.000$

⑨ Jumlah pesanan / th = $\frac{D}{Q} = \frac{3000}{200} = 15 \text{ kali}$

⑩ Durasi EOQ = $\frac{300}{15} = 20 \text{ hari}$

⑪ $TC = PD + TIC$
 $= 3.000.000 + 15.000$
 $= 3.015.000$

⑫ $RDP = L \left(\frac{D}{\text{hari kerja th}} \right)$
 $= 5 \left(\frac{3.000}{300} \right)$
 $= 50 \text{ hari}$

3. Ditetahui

$$D = 100.000$$

$$S = 10000 + 600 + 400$$
$$= 2000$$

$$H = 20\% \times 2000$$
$$= 400$$

$$L = 5 \text{ hari}$$

$$\text{a. } EOQ (Q) = \sqrt{\frac{2 \cdot S \cdot D}{H}}$$
$$= \sqrt{\frac{2 \cdot 2000 \cdot 100.000}{400}}$$
$$= \sqrt{1.000.000} = 1000$$

$$\text{b. } A = \frac{Q}{2} = \frac{1000}{2} = 500$$

$$\text{c. } TCC = H \cdot \left(\frac{Q}{2}\right)$$
$$= 400 (500)$$
$$= 200.000$$

$$\text{d. } TOC = \frac{S \cdot D}{Q}$$
$$= \frac{2.000 \times 100.000}{1000}$$
$$= 200.000$$

$$\text{e. } TIC = TCC + TOC$$
$$= 200.000 + 200.000$$
$$= 400.000$$

$$\text{f. } \text{Jumlah pesanan / th} = \frac{D}{Q}$$
$$= \frac{100.000}{1000} = 100 \text{ kali}$$

$$\text{g. } \text{Durasi } EOQ = \frac{350}{100} = 3,5 \text{ hari}$$

$$\text{h. } POP = L \left(\frac{D}{\text{hari kerja th}} \right)$$
$$= 5 \left(\frac{100.000}{350} \right)$$
$$= 2.428,57 \text{ hari}$$

4. Diketahui $D = 2000$
 $S = 300$
 $H = 30$

a. $EOQ(Q) = \sqrt{\frac{2 \cdot S \cdot D}{H}}$
 $= \sqrt{\frac{2 \cdot 300 \cdot 2000}{30}}$
 $= \sqrt{40000} = 200$

$TCC = H \cdot \left(\frac{Q}{2}\right)$ $= 300 \cdot \frac{200}{2}$ $= 3000$	$TOC = \frac{S \cdot D}{Q}$ $= \frac{300 \cdot 2000}{200}$ $= 3000$
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b. $TIC = TCC + TOC$
 $= 3000 + 3000$
 $= 6000$