

Soluciones Examen 1º Ev. Final (Marzo)

$$1. - \text{Productividad}_{2007} = \frac{200.000 \text{ un.}}{25.000 \text{ h}} = 8 \frac{\text{unid}}{\text{h}}$$

$$\text{Productividad}_{2008} = P_{2007} \cdot 11 = 8 \cdot 11 = 88 \frac{\text{unid}}{\text{h}} \Rightarrow 88 = \frac{\text{unid}_{2008}}{24.000 \text{ h}}$$

$$\boxed{\text{Unidades}_{2008} = 24.000 \cdot 88 = 211.200}$$

$$3. - \left[C_p = \frac{LSE - LSI}{6\sigma} = \frac{50 - 10}{6 \cdot 3,345} = 1,93 \right]$$

$$\left. \begin{aligned} C_{pk} \rightarrow Z_1 &= \frac{LSE - X}{3\sigma} = \frac{50 - 30}{3 \cdot 3,345} = 1,93 \\ Z_2 &= \frac{X - LIE}{3\sigma} = \frac{30 - 10}{3 \cdot 3,345} = 1,93 \end{aligned} \right\} \boxed{C_{pk} = 1,93}$$

$$4. - \text{Eficiencia} = \frac{C_r}{C_e} \Rightarrow 0,85 \cdot C_e = C_r \Rightarrow C_r = 0,85 \frac{300.000 \text{ panes}}{\text{h}} = 255.000 \frac{\text{panes}}{\text{h}}$$

$$C_r = 255.000 \frac{\text{panes}}{\text{h}} \cdot \frac{8 \text{ h}}{\text{turno}} \cdot \frac{3 \text{ turnos}}{\text{día}} \cdot \frac{7 \text{ días}}{\text{semana}} = 42.840.000 \frac{\text{panes}}{\text{semana}}$$

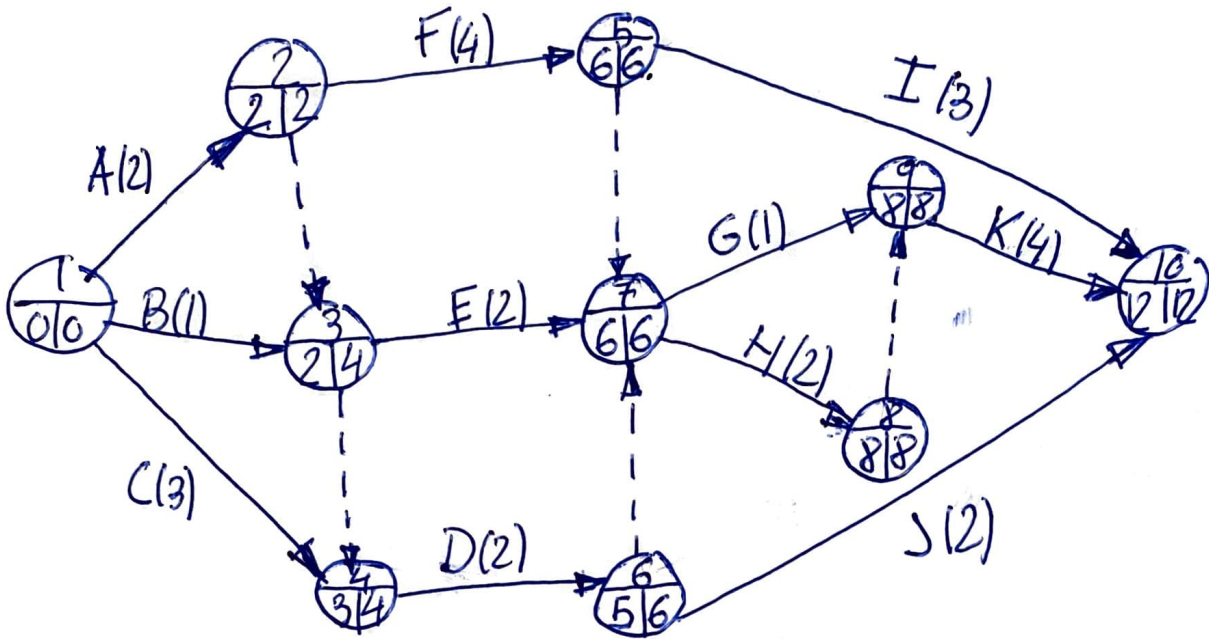
$$5. - \left. \begin{aligned} C &= 15.000 \text{ unid} \\ P &= 7 \text{ € / unid.} \\ S &= 4 \text{ € / pedido} \\ C_a &= 0,1 \text{ € anulos} \\ &\quad \text{unidad} \end{aligned} \right\} \left[Q = \sqrt{\frac{2SQ}{C_a}} = \sqrt{\frac{2 \cdot 4 \cdot 15.000}{0,1}} = 1.095 \frac{\text{unid}}{\text{pedido}} \right]$$

$$\left[N^{\circ} \text{pedidos} = \frac{15.000}{1.095} = 13,7 \right]$$

$$CT = 15.000 \cdot 7 + \frac{4 \cdot 15.000}{1.095} + 0,1 \frac{15.000}{2} = 105.000 + 541,8 + 750$$

$$\boxed{CT = 105.804 \text{ €}}$$

6.-



| N | Early | Latest | N |
|----|----------|---------|---|
| 3 | 2, 1 | 7, 6 | 7 |
| 4 | 3, 2 | 9, 6 | 5 |
| 7 | 4, 5, 6 | 10, 6 | 6 |
| 9 | 7, 8 | 9, 3, 1 | 1 |
| 10 | 9, 12, 7 | | |

a) $H_F = 6 - 2 - 4 = 0$

b) 12 semanas

c) $H_E = 6 - 2 - 2 = 2$ semanas

d) $H_B = 4 - 0 - 1 = 3$. No se acorta, ya se tiene una holgura de 3