1) Resolver en función de dib>0

Xn+2- L(1+B) xn+1+ + Bxn=1

- Ptos. equilibrio:

2 4 min [11/2 14/3/2)

 $x - L(1+B) \times + dB \times = 1 \iff x - dx = 1 \iff x = \frac{1}{1-L} d + 1$ -Pol. característico y parte homogénea:

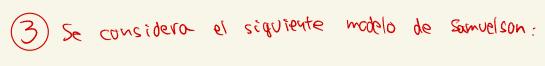
プ· J(4月) > + JP=0 ( ) >= J(4月) + J2(14月)2-41月

1)  $\lambda (1+\beta)^{2} - 4\beta = 0 \Leftrightarrow \begin{cases} \lambda = 0 & \text{No. pues } \lambda(\beta > 0) \\ \lambda(1+\beta)^{2} - 4\beta = 0 \Leftrightarrow \lambda = \frac{4\beta}{(1+\beta)^{2}} \Rightarrow \lambda = \frac{2\beta}{4+\beta} \end{cases}$   $\lambda = (C_{1} + C_{2} \text{No.}) \left(\frac{2\beta}{1+\beta}\right)^{n} + \frac{1}{1-\lambda}$   $\lambda = (C_{1} + C_{2} \text{No.}) \left(\frac{2\beta}{1+\beta}\right)^{n} + \frac{1}{1-\lambda}$ 

Sin embargo,  $(x_1) \rightarrow \frac{1}{1-1} \Rightarrow |\overline{ZB}| = \frac{2B}{1+B} < 1 \Leftrightarrow 2B < 1+B \Leftrightarrow B < 1$ 

2)  $\lambda (1 + \beta)^{2} - 4\beta = 0$   $\lambda = 0$ 

3)  $\lambda \left[ (1+\beta)^2 - 4\beta \right] = \lambda \left[ (4+\beta)^2 \right] \Rightarrow \lambda$ 



A) Socar ec. recurrencia:

(3) 
$$J_{n} = bJ_{n-1} - kbJ_{n-2} + G \Rightarrow G = J_{n+2} - bJ_{n+4} + kbJ_{n}$$

B) socar 10 que tipuen que valer los parametros.

$$G = I - bI + kbI \Leftrightarrow I = \frac{G}{1+(k-1)b}$$

-Parte homogénea:

Parte homogénea:  

$$P(x) = \lambda^2 - bx + kb = 0 \iff \lambda = b \pm \sqrt{b^2 - 4kb}$$

1) 
$$b(b-4k) = 0 \iff \begin{cases} b = 0 \\ b = 4k \implies 2 = \frac{4k}{2} = 7k \end{cases}$$

$$T_{\alpha} = (C_{\alpha} + C_{\alpha} + N) (7F)^{\alpha} + G$$

2) 
$$b(b-4k) > 0 \iff b > 4k \implies \mathbb{R} \Rightarrow \lambda_1 \lambda_2 > 0$$
  
 $x_n = c_1 \lambda_1^n + c_2 \lambda_2^n + \frac{G}{1 + b(k-1)} *$ 

Si 
$$\lambda_1 \ge 1$$
 (=> b± $\sqrt{b^2-4kb}$  >2 (=> 1+b(k-1) <0  
Vernos que es el denominador de \* =>  
contradicción pues 1+b(k-1) ≠0 => 0<  $\lambda_1, \lambda_2 < 1$ 

$$e \quad \chi_n = G$$

$$h \rightarrow + \infty \quad 1 + b(+1)$$

3) 
$$b(b-4+)c0 \Rightarrow b c+c1 \Rightarrow convergencia a$$

$$\frac{6}{1+b(+-1)}$$