Question 4: Marshallian Labor Supply

Take the model we considered in the Estimation Lecture of the Static Intensive Labor Supply: Let the direct utility follow a Stone-Geary form

$$U = B_0 \ln (L - \gamma_L) + B_1 \ln (C - \gamma_C)$$

where

$$\begin{split} B_0 + B_1 &= 1 \\ C_i - \gamma_C > 0; \quad L - \gamma_L > 0 \\ B_0 &= x' \tilde{B}_0 + \epsilon \end{split}$$

(a) Suppose that the price of consumption is 1. What are the Marshallian demand functions for consumption and leisure?