

Prof. Dr. Heinz D. Kurz

2. Klausur zu KV "Wachstum und Verteilung", 10. 1. 2011

Name:

Matrikel-Nr.:

All questions have to be answered. You need to receive a minimum of 30 per cent of the available points with regard to each question and on the whole 50 per cent.

1. The Solow Model

1. What does the Solow model explain, and what not, and how does it do this?

2. Let

$$Y(t) = F[K(t), L(t)] \quad (\S)$$

(a) Differentiate Y with respect to t and then calculate the growth rate of Y .

(b) When can the above function be written in intensive form, $y = f(k)$?

(c) Illustrate the latter and show how for a given capital intensity one can read off in the diagram important economic variables (in obvious notation), such as r , w , v , x , y , Ω .

3. What is meant by “growth accounting”? Illustrate the approach in terms of a numerical example chosen by you.

2. “New” Growth Theory

1. What distinguishes the models of Romer (1988) and Lucas (1986) from the Solow model?

2. Exemplify the role of externalities in some of so-called “new growth models”.

3. Explain the meaning of the following production function used by Romer (1990) and the involved mechanism that increases labour productivity:

$$Y(H_Y, L, x) = H_Y^\alpha L^\beta \sum_{i=1}^{\infty} x_i^{1-\alpha-\beta}$$