

STOCKHOLM UNIVERSITY  
Department of Economics

**Course name:** Labour market economics  
**Course code:** EC2102  
**Examiner:** Ann-Sofie Kolm  
**Number of credits:** 7,5 credits  
**Date of exam:** Thursday, 30 May , 2013  
**Examination time:** 3 hours

Write your identification number and the number of the question on every cover sheet. Do not write answers for more than one question in the same cover sheet. Explain notions/concepts and symbols. Only legible exams will be marked. No aids are allowed.

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The exam consists of 8 questions. One can get 100 points in total. For the grade E 40 points are required, for D 50 points, C 60 points, B 75 points and A 90 points. Question 1 is a credit question. If you received 10 credit points on your assignments, then you should not answer question 1.

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If you think that a question is vaguely formulated: specify the conditions used for solving it.

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Results will be posted June 20 at the latest

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**Good luck!**

Q1. (10 points) **This is a credit question which should only be answered if you have NOT received 10 credit points on your assignment.** Discuss labour supply over the business cycle. Describe the hypotheses of the *added worker effect* and the *discouraged worker effect*.

Q2. (20 points) Depart from the basic static model of individual labour supply and discuss how labour supply on the intensive margin (hour decision) and the extensive margin (participation decision) is affected by an increase in the wage. Show how the budget line looks prior to the increase in the wage, as well as how it looks ex post. Also, define the reservation wage and show how you graphically can derive it.

Q3. (10 points) State 3 models/arguments that can explain why a long tail in the upper part of the wage distribution is observed.

Q4. (10 points). Sometimes efficiency wage models are used to explain the existence of involuntary unemployment in the labour market. Provide a short description of an efficiency wage model. What are the key features of the model. Why don't wages fall so to clear the market?

Q5. (20 points). Define the Gini-coefficient that is used to measure inequality of income and earnings. Use a graph to illustrate how the Gini-coefficient is constructed. Discuss the pros and cons with this measure. Then define and contrast the Gini-coefficient with percentile ratios as inequality measures (P90/P10 as the 90-10 wage gap, etc). How can these measures deal with the draw backs of the Gini-coefficient measure?

Q6. (10 points). Discuss the Tournament model. What are the key features of the model? What are the advantages and disadvantages of the model?

Q7. (10 points) Human capital theory and signaling theory are two competing theories that can explain the observed relationship between wages and schooling. How can both these theories explain the observed relationship?

Q8. (10 points) Assume a profit maximizing firm facing a given output price of 5, with a production technology represented by the following production function  $Y = 2N^{0.5}$ , where  $Y$  is production, and  $N$  is the number of employed workers. Derive the profit maximizing firm's demand function for labour ( $LD$ ). What is employment if the wage set by the union is equal to unity, i.e.  $w=1$ .