

STOCKHOLM UNIVERSITY  
Department of Economics

**Course name:** Econometrics II  
**Course code:** EC7411  
**Examiner:** Per Pettersson Lidbom  
**Number of credits:** 7,5 credits  
**Date of exam:** Friday 11 March 2016  
**Examination time:** 3 hours

Write your identification number on each paper and cover sheet (the number stated in the upper right hand corner on your exam cover).

Use one cover sheet per question. Explain notions/concepts and symbols. If you think that a question is vaguely formulated, specify the conditions used for solving it. Only legible exams will be marked. No aids are allowed.

**Please give short and precise answers!**

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The exam consists of 2 questions. Each question is worth 50 points. 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. Answer each question clearly and concisely. Only legible answers will be considered.

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Results will be posted on [www.mitt.su.se](http://www.mitt.su.se) three weeks after the exam, at the latest.

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**Good luck!**

Question 1. (50p)

Suppose that you are going to use the following regression specifications in your Master thesis. Describe what you need to do in your paper in order for your empirical analysis to be convincing (e.g., identification, specification tests, standard errors etc.).

a)  $Y_{igt} = \alpha_g + \lambda_t + \beta X_{gt} + \theta W_{igt} + v_{igt}$ ,

where  $i$  stands for individuals,  $g$  for group, and  $t$  time.  $\alpha_g$  is a group-fixed effect and  $\lambda_t$  is a time-fixed effects.  $Y_{igt}$  is some outcome of interest;  $X_{gt}$  is a treatment indicator variable taking the value 1 if individual  $i$  is treated and zero if not treated,  $W_{igt}$  is a set of control variables.

b)  $Y_i = \alpha + \beta T_i + f(X_i) + u_i$ ,

where  $T_i$  is treatment indicator variable defined as  $T_i = 1$  if  $X_i \geq c$  and  $T_i = 0$  if  $X_i < c$ .

Question 2. (50p)

Write a referee report on “Estimating the returns to schooling using cohort-level maternal education as an instrument”

Good luck

Per Pettersson Lidbom