



Stockholm
University

Department of Economics

Course name: Labour Market Economics
Course code: EC2102
Semester: Spring 2016
Type of exam: Main
Examiner: Ann-Sofie Kolm
Number of credits: 7,5 credits (hp)
Date of exam: 31 May 2016
Examination time: 3 hours (9:00-12:00)

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.**

The exam consists of 6 questions. All questions are worth 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.

Your results will be made available on your "My Studies" account (www.mitt.su.se) on 21 June at the latest.

Good luck!

Q1. (20 points). Use the basic static model of individual labour supply to explain how a fringe benefit is likely to affect labour supply. Assume, for example, that firms start providing their employees with free lunches. With everything else being equal, this can be seen as an increase in the employees' total income from work. Let the individuals have a non-labour income given by Y . First, use a figure and discuss how the fringe benefit is likely to affect work hours for those already working. Second, use a figure and discuss how the fringe benefit is likely to affect labour force participation.

Q2. (20 points) Decompose *total hours worked per person in the working age population* into 3 components. Explain each of the components in your decomposition. Also, provide a theory that can be used to determine each of the components. In Sweden, the three components can be approximated by, let's say, 0.94, 0.8, 33. Associate each of these numbers with the correct component.

Q3.(10 points) Human capital theory and signalling theory are two competing theories that both can explain the observed relationship between wages and schooling. Explain the two theories and how they both can explain the observed relationship.

Q4.(20 points) Analyse the impact of minimum wages in a model of a non-discriminating monopsonist. Use the model and explain why a higher minimum wage under certain circumstances can increase employment. Also, discuss what we empirically know about the impact of minimum wages on employment.

Q5. (10 points) Define and discuss the concepts of firm-specific, industry-specific, and general on-the-job training. Also, who pays for the education?

Q6. (20 points) Assume a profit maximizing firm with a production technology represented by a Cobb-Douglas production function $Y = N^\beta$. Y is production, the positive parameter $\beta < 1$ is a technology parameter, and N is the number of employed workers.

a) Derive the profit maximizing firm's demand for labour (LD).

Assume that the supply side can be derived from monopoly union model where the union objective function is given by: $\Lambda = N[w + S - B] + \bar{N}B$ where Λ is union utility, B is unemployment insurance, \bar{N} is the number of union members, N is the number of employed members, and S represents a fringe benefit (a fringe benefit is a benefit the firm give to their workers, such as free lunches). In accordance with the monopoly union model one can derive the following wage setting curve (WS): $w = \frac{B - S}{\alpha}$, where, $S < B$ is assumed.

- b) Draw the wage setting curve (WS) and the labour demand curve (LD) in a figure with employment (N) on the X -axes and the wage (w) on the Y -axes.
- c) Use the equations and the figure to explain how employment and the wage changes when the fringe benefit, S , is reduced?