STOCKHOLM UNIVERSITY Department of Economics

Course name: **International Economics** Course code: EC2301 **Examiner: Shon Ferguson** Number of credits: 7,5 credits Date of exam: Tuesday May 24, 2011, 9.00 - 12.00 **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). Do not write answers to more than one question in the same cover sheet. 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. Answer in English or Swedish The maximum number of credits is 99 (for answers on the exam) + 16 (for the assignments) Credits correspond to grades as follows: 90 - 115Α 80 - 89В 70 – 79 С 60 - 69D 50 - 59Ε 0 - 49F Results will be posted on the notice board, House A, floor 3, on June 13th the latest.

- 1. Explain the following concepts in 50 words maximum for each concept (2 points per concept, i.e. maximum 20 points)
 - a. Real wage
 - b. Stolper-Samuelson Theorem
 - c. Factor content of trade
 - d. Rybczynski Theorem
 - e. Gravity equation
 - f. "Most favored nation" clause
 - g. Deadweight loss
 - h. Infant industry
 - i. Trade diversion
 - j. Negative externality
- 2. Assume that Home and Foreign produce two goods, apparel and cars. There are two factors of production, labor and capital. The apparel industry is relatively laborintensive, while the car industry is relatively capital-intensive. Assume that Home is capital-abundant while Foreign is Labor-abundant. Assume that labor and capital flow freely between the industries. All of the standard Heckscher-Ohlin assumptions hold.
 - a. State the Heckscher-Ohlin Theorem. In which industry does Home have a comparative advantage? Briefly explain why. (5 points)
 - b. Draw plausible production possibility frontier curves and indifference curves for Home and for Foreign (pick ones that make sense given the assumptions above) and show production and consumption for each country in autarky. Briefly discuss how the two graphs differ. (6 points)
 - c. Show in a graph Home's production and consumption with free trade and describe how it changes compared to autarky. (5 points)

A shortage of electricity at Home (nuclear power plants shut down with no means to replace the lost power supply) means that factories and offices can't operate their equipment as much as usual. Let's analyze this as a decrease in the stock of capital.

- d. Show the impact of this on Home's long-run allocation of labor and capital between the apparel industry and car industry in a graph and interpret the graph briefly in words. In another graph show the long-run impact on industry outputs at Home and interpret briefly. What is the long-run effect on factor prices and why? (15 points)
- 3. Trade economists typically use models of monopolistic competition to analyze the effects of intra-industry trade.
 - a. What is intra-industry trade (describe briefly in words)? Given an example of a typical good and a pair of countries that engage in intra-industry trade. (5 points)
 - b. Using a graph, show the long-run monopolistic competition equilibrium without trade. Given that we are in the long-run equilibrium, what would happen to the profits of a single firm if it increased its price while the other firms' prices were left unchanged? (5 points)

- c. Show in a new graph the long-run monopolistic competition equilibrium when the country opens up to free trade. Briefly describe which curves move and why when the country goes from autarky to free trade. (5 points)
- d. Starting from the long-run equilibrium with free trade (the graph you just drew in part c), let's analyze the effect of an increase in electricity prices in a monopolistic competition framework. Assume that higher electricity prices increase the marginal cost of production but not the fixed cost of production. What happens to the average cost curve? Draw and briefly describe what the new long-run equilibrium will look like with higher electricity costs. Do you expect the monopolistically competitive price to increase by the same amount as the marginal cost increase? Motivate your answer. (5 points)
- 4. The textbook states that "for every level of an import quota, there is an equivalent import tariff that would lead to the same Home price and quantity of exports."
 - a. What does this statement mean? Interpret briefly and illustrate using graphs (assume Home is a "small" country) (8 points)
 - b. What is the crucial assumption about the nature of competition that is a necessary condition for this statement to hold? (3 points)
 - c. Briefly describe and show using graphs a situation where tariffs and quotas are not "equivalent". (8 points)
 - d. When a country is large (instead of small), what is the main difference that one needs to consider when analyzing the effect of a tariff or quota? (Describe briefly, no graph required) (4 points)
- 5. Why is a production subsidy a better policy instrument than an export subsidy to achieve an increase in Home supply? (Explain briefly, no graph required) Is the terms-of-trade effect positive or negative for Home when it implements an export subsidy? (Explain briefly, no graph required) (5 points)