IMPORTANT INSTRUCTIONS:

1. No computers, calculators, cell phones, or any kind of electronic device may be used.
2. Any printed material – books, notes, etc. – can be used.
3. Write your name on each answer book you use.
4. Write out and sign the honor pledge on the cover of your first answer book: “I pledge my honor that I have not violated the Honor Code during this examination.”
5. Show the steps of your reasoning and calculation. Use well-labeled diagrams where appropriate. Write clearly and succinctly.
6. The total time available for writing is 80 minutes. Allocate your time carefully, using the suggestions for each question. We suggest 5 minutes for reading the exam carefully, and 75 minutes total for answering the questions.
7. Extra time can be “purchased” at the rate of FOUR points per MINUTE or part thereof.

QUESTION 1: 20 points, 15 minutes

[1] Douglas Irwin quotes Lee Iacocca, CEO of Chrysler in the 1980s, as proudly proclaiming that “the U.S. Auto industry had met the competitive challenge and had finally matched the efficiency of Japanese producers.” But, argues Irwin, “U.S. automakers were not really competing against Japanese automakers as much as they were against other American industries.” Explain.

[2] “Comparative advantage governs which country exports which good, but absolute advantage governs which country gains from trade.” Discuss.

QUESTION 2: 40 points, 30 minutes

The world of this question consists of two countries, England and France, and two goods, Beef and Wine. England has an endowment consisting of 200 units of Beef, and France has an endowment consisting of 300 units of Wine. Consumers in both countries have preferences represented by the utility function $U(B,W) = BW$ in obvious notation. You have used this utility function before, and can use its familiar implications for demand without proof, but should state them clearly.

(a) Find the absolute and relative demand functions for England and France.

(b) Using BOTH algebraic supply and demand analysis AND offer curve analysis in an Edgeworth box diagram, find the relative price of beef in the trading equilibrium.

(c) Who gains, and who loses, from trade?
QUESTION 3: 40 points, 30 minutes

There are two goods, Autos and Corn, and two factors of production, capital and labor. Auto production is relatively more capital-intensive. Constant returns to scale prevail in each sector. Goods are freely traded internationally, but factors are immobile across countries. All markets (international for goods, domestic for factors) are perfectly competitive.

We focus on one country, America. Everything is initially in a long-run equilibrium with both capital and labor allocated optimally to production of the two goods. Suddenly, some change in the supply and/or demand conditions in the rest of the world causes a fall in the price of autos relative to corn. The following sequence of time-frames then unfolds: [1] In the short run, both factors are completely specific to their initial sectors of employment. [2] In the medium run, capital is specific but labor can relocate. [3] In the long run, both factors are mobile across sectors. In each run, the prices of factors adjust to equilibrate the factor markets. Assume that America continues to produce both goods in positive quantities in all situations (the initial equilibrium as well as the sequence of time frames stated).

[A] You are asked to consider the effects of the change in the goods' relative price on the real incomes of the owners of various factors in America in the three different time-frames. Reproduce the following table in your answer-book. In each cell, write whether the owner of that factor in that time-frame is a clear gainer from the change, is a clear loser, or is ambiguously affected, in each case the standard of comparison being the initial long-run equilibrium.

<table>
<thead>
<tr>
<th>Capital initially in Autos</th>
<th>Capital initially in Corn</th>
<th>Labor initially in Autos</th>
<th>Labor initially in Corn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short run</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium run</td>
<td></td>
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<tr>
<td>Long run</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

[B] Give briefly the intuition for the effects on capital initially in corn.

[C] Where a factor is ambiguously affected, add a brief explanation of the ambiguity, in one or two sentences.

[D] The statement of the question did not include any information about whether America imports or exports corn. Why does that not matter?

Your answer will be graded as follows: 2.5 points for the entry in each of the 12 cells; 6 points for part [B], and 2 points each of parts [C] and [D].