**Economics 340 --** Fall 2019 Final Exam

Hunter College, Prof. Conning

*Answer all MC questions on the bubble sheet and the rest in the boxed areas. Write your name and emplid on all pages where it is requested. Good luck.*

**Section I – Multiple Choice (35 points)**

1. The Ricardian theory of comparative advantage states that a country has a comparative advantage at wheat production if
2. output per worker of wheat is higher in that country than other countries.
3. wage rates in that country are low.
4. wheat is produced at lower opportunity cost compared to other countries.
5. Wheat is land-intensive and the country has a lot of land.
6. A country’s pattern of trade is determined by comparative advantage. If however a country has an absolute *dis*-advantage at producing both goods compared to its trading partners we would predict that country
7. would run a trade deficit
8. would run a trade surplus
9. has a lower equilibrium wage rate
10. has a higher equilibrium wage rate
11. According to the Ricardian model, a nation engaged in trade will choose a consumption bundle
12. on its production possibilities frontier.
13. inside its production possibilities frontier.
14. outside its production possibilities frontier, on its consumption possibility frontier.
15. inside its trade-partner's production possibilities frontier.
16. The Hecksher-Ohlin-Samuelson model emphasizes primarily what as the source of comparative advantage across countries?
17. differences in tastes
18. differences in technology
19. differences in factor endowments
20. none of the above
21. Home is a small country. Foreign is a very large country. Which statement is true?

Marginal Products of Labor (units of output per worker)

Cloth Widgets

Home 10 20

Foreign 12 6

1. Neither country has a comparative advantage.
2. Home has a comparative advantage at both products.
3. Home has a comparative advantage at cloth.
4. Home has a comparative advantage at widgets.
5. From the table above, the opportunity cost of producing a unit of cloth, measured in terms of widgets, is \_\_\_\_\_\_\_\_ in Home and \_\_\_\_\_\_\_\_ in foreign.
6. 10/12, 20/6
7. 6/20, 12/10
8. 1/2
9. 2
10. Continuing with the above, if Home were able to improve its technology by doubling the marginal productivity of workers in both sectors then, Home’s comparative advantage in widgets would
11. remain the same and real wages would be unchanged.
12. remain the same but real wages would double.
13. remain the same but many workers would become unemployed as only half as many are needed
14. reverse (change to the other product) and real wages would be cut in half
15. By definition, a “capital abundant” country
16. Has a lot of capital, compared to other countries
17. Has a small labor force, compared to other countries
18. Has a lot of capital relative to labor, compared to other countries
19. Has more modern technology compared to other countries.
20. Chinese workers’ wages are much lower than US workers’ wages. Why might US labor productivity exceed that of Chinese workers in so many sectors?
21. The US has on average more capital per worker
22. The US has on average better infrastructure (roads, ports, legal systems, etc)
23. US workers have on average more years of schooling
24. All of the above
25. Intra-industry trade best describes the type of trade between
26. developing countries of Asia and Africa.
27. industrial countries of Western Europe and North America.
28. capital abundant and Labor abundant countries.
29. formerly communist nations.
30. Gravity trade equations predict that the volume of trade between two regions will be proportional to the product of the GDP of each region and inversely proportional to the distance between the regions. Empirical estimates of this relationship (described in Feenstra/Taylor and class slides) also find ‘border effects’ which mean that the amount of trade predicted between Canadian province A and Canadian province B will be \_\_\_\_\_\_\_\_\_\_\_\_\_\_ as the amount of trade predicted between Canadian province A and a US State of similar GDP and distance away as Canadian province B. Fill in the blank:
    1. Very similar
    2. About 50 percent higher
    3. About 2.5 times as high
    4. More than thirteen times higher
31. In a two-sector economy that exports agriculture and imports manufacturing an import tariff of 20% on manufacturing would have the same effect on domestic relative prices as:
32. 20% subsidy to both manufacturing production and manufacturing consumption.
33. a 20% consumption tax on manufacturing consumption alone
34. a 20% tax on agricultural exports
35. a 20% income tax
36. The USA is a large country when it comes to the import of copper on world markets. If starting from a zero tariff the USA started to raise its tariff on the imports of copper we would expect the world price of copper to \_\_\_\_\_\_\_\_\_\_\_\_\_\_
37. fall
38. rise
39. stay the same
40. fall to zero
41. In the HOS model an increase in the relative price of the labor intensive good should lead to an increase in the wage rental ratio w/r and lead \_\_\_\_\_\_\_\_\_\_\_\_:
42. all firms in the economy to substitute capital for labor (increase K/L ratios in production)
43. firms only in the labor-intensive sector to substitute capital for labor (increase K/L ratios in production)
44. all firms in the economy to begin to substitute labor for capital (decrease K/L ratios)
45. firms only in the labor-intensive sector to begin to substitute labor for capital (decrease K/L ratios)
46. ‘Agglomeration externalities’ help explain the rise of cities and hi-tech clusters such as Silicon Valley. Which of the following economic assumptions is most clearly associated with this phenomena.
    1. Monopolistic competition and product differentiation based on economies of scale internal to the firm.
    2. Linear production technologies
    3. Capital-intensive production technologies
    4. Positive economic spillovers across firms
47. The 1999 WTO ministerial conference to be held in \_\_\_\_\_\_\_\_\_\_\_\_ had to be cancelled due to days of widespread and at times violent ‘anti-globalization’ protests:
    1. Karachi, Pakistan
    2. Seattle
    3. Bretton Woods
    4. Kyoto
48. When a country enters into a Preferential trade arrangement (PTA) we expect both positive trade \_\_\_\_\_\_\_\_\_ as well as negative trade \_\_\_\_\_\_\_\_\_ effects.
    1. spillovers; agglomeration
    2. import substitution; demotion
    3. complementarity; singularity
    4. creation; diversion
49. Whether it is via the channels of trade, capital accumulation, or the migration of factors across borders the neo-classical model based on the assumption of perfect substitution and production technologies with diminishing marginal products to the intensification of any one factor all predict that over time there should be a tendency toward \_\_\_\_\_\_\_\_\_\_\_\_\_\_ in real factor incomes across countries.
50. monopolization
51. entropy
52. divergence
53. convergence
54. In the offshoring model, as the cost of capital and transactions falls in the developing country certain activities in the production value chain that had been produced in the developed country get offshored. The model predicts that the relative demand for skilled labor will
    1. Rise in the developing country and Fall in the developed
    2. Fall in the developing country and rise in the developed
    3. Fall in both countries
    4. Rise in both countries
55. Economies of scale that are external to the firm are often described as being associated with:
    1. Rent-seeking
    2. Negative externalities
    3. Positive spillovers across firms
    4. Price-volatility
56. A domestic refrigerator manufacturer successfully lobbies the government to impose a 50% tariff on imported refrigerators and a 0% import tariff on imported refrigerant liquid (essential to the domestic industry). The Effective Rate of Protection (ERP) on refrigerators will be:
57. 50%
58. More than 50%
59. Less than 50%
60. 0%
61. Think of the political economy of the *specific factors model.* Agriculture is produced with specific land and mobile labor and manufacturing is produced with specific capital and mobile labor. The country has a comparative advantage in agriculture. Which groups would be most likely to oppose a move from autarky to free trade:
62. Mobile laborers
63. Landlords (owners of land)
64. capitalists (owners of capital)
65. None, free trade raises all incomes
66. Think of the political economy of the *HOS model*. Agriculture and manufacturing are produced with capital and labor but agriculture is more labor-intensive. This is a labor-abundant country. Which groups would be most likely to oppose a move from autarky to more open trade :
67. Laborers (people who earn income primarily from labor)
68. Owners of capital (income primarily from capital)
69. Nobody, incomes rise for all groups in the HOS model
70. Specific factors in general
71. Suppose Harley Davidson assembles and sells motorcycles in the USA for $10,000 a unit using imported steel and other components from Canada costing $5000. There is no tariff on these intermediate components so value added at world prices is equal to $5000. Consider now two scenarios (A) Trump imposes a 25% tariff on final good motorcycles and on intermediate components; and (B) Trump imposes a 25% tariff on motorcycle components only (zero tariff on imported motorcycles). We can calculate the effective rate of protection ERP in scenarios A and B to be \_\_\_\_\_\_\_\_\_\_\_\_ respectively.
72. 25% and 40%
73. 25% and -25%
74. 40% and -20%
75. 25% and -20%
76. Which of the following macroeconomic identities lead to a correct account of the trade balance
77. Y = C + I + G + (X – M)
78. Y – E = X – M
79. (S - I) + (T – G) = (X – M)
80. all of the above
81. Think of labor demand by firms in a sector (given by the horizontal summation of each firm’s downward sloping marginal value product of labor (P\*MPL). If the product price remains unchanged then an improvement that raises the marginal product of every worker by say 10% should lead to \_\_\_\_\_\_\_\_\_ in labor demand and employment in the sector. However if the resulting increase in output supply leads to a sufficiently large \_\_\_\_\_\_\_\_ in the product price then total employment in the sector could fall:
82. an increase, increase
83. a decrease; increase
84. no change; fall
85. an increase; fall
86. Which of the following international organizations today is responsible for developing and maintaining the system of international trade rules and dealing with trade disputes?
    1. The IMF
    2. The World Bank
    3. The Generalized Agreement on Tariffs and Trade (GATT)
    4. The WTO
87. According to economist Dani Rodrik, countries that are more exposed to trade (measured for example as (X + M) / GDP ) also tend to have \_\_\_\_\_\_\_\_\_\_\_\_.
    1. higher levels of trade protection
    2. governments with anti-free trade agendas
    3. larger government social safety nets
    4. less coastline relative to their land area
88. In the 1980s Japan agreed to voluntary export restraints (VER) on car exports to the USA. This policy is similar in impacts as a \_\_\_\_\_\_\_\_\_\_\_\_\_\_except that \_\_\_\_\_\_\_\_\_\_\_
    1. Domestic import tariff; the tariff revenue is returned to consumers
    2. Domestic import quota; quota rents are collected by the foreign country.
    3. Production subsidy to US car manufacturers; the foreign country pays the subsidy payments
    4. Domestic import license system; domestic consumers do not pay a consumption tax
89. Which of the following explanations is the most plausible explanation for why the United States has had a persistent trade deficit with the rest of the world over the past few decades.
90. Because the United States has remained an attractive destination for investment from abroad, driving expenditure (E = C + I + G) above domestic output Y.
91. Because wages are lower abroad than in the USA so US firms find it difficult to compete.
92. Because other countries have been taking advantage of the USA by having higher tariffs on their products.
93. Because we have been losing ‘competitiveness’ as other countries have increased their productivity faster than the USA has.
94. Consider a trade model with IRS (internal to the firm) and monopolistic competition in the car production sector. The economy is initially closed and the Home country has 5 car manufactures (making 5 different models of cars). If this country opens up to trade the model predicts that the home country will end up *producing* \_\_\_\_\_\_\_\_\_ car brands with \_\_\_\_\_\_ *prices*.
95. more; lower
96. less; lower
97. less; higher
98. more; higher
99. The specificity principle refers to the idea that
100. the WTO allows countries to temporarily raise tariffs in response to a specific surge of imports, if this causes domestic harm.
101. policy interventions should be chosen to match the nature of the market failure they are intended to fix, so as to minimize distortions.
102. Multilateral trade arrangements or pacts to reduce tariffs are preferred to preferential or country specific trade arrangements
103. for any level of import quota we can find a specific tariff equivalent.

Last Name, First: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **ECONOMICS 340 FINAL, Fall 2019**

**Part I.** (20 pts) Point A depicts production and consumption in a closed economy with labor-intensive Wine and capital-intensive Computer production. Capital and labor are both perfectly mobile across sectors (HOS model). Read all the questions, think carefully and plan your answer before drawing.

A

Wine

Compu-ters

Suppose the country opens to trade and this leads to an ***increase*** in the relative price of labor-intensive Wine products. Plan your drawing to keep the diagram readable and clean:

1. Assume actors in the economy respond to the change in relative prices by moving resources across sectors. Draw a dot to represent a sample new equilibrium production point on the PPF at world prices. Label this point **B**.
2. Draw the world price line running through point B. This line can also be referred to as the country’s GDP line.
3. Indicate the level of domestic consumption when the country is open to trade at these prices with a point **C** and a representative indifference curve. Now label the points and and and . Use dashed indicator lines to label these quantities *on the horizontal and vertical axes*.
4. Indicate the real level of GDP measured in terms of Wine (i.e. at world prices production bundle B has the same value as how much light manufacturing). Label this point **T on the horizontal axis.**
5. Indicate the level of IMPORTS on the vertical axis of the diagram

Since wine is relatively labor-intensive the increase in its relative price should lead to changes in the *real* wage of workers (measured in terms of either cloth or manufacturing sectors) by the following logic:



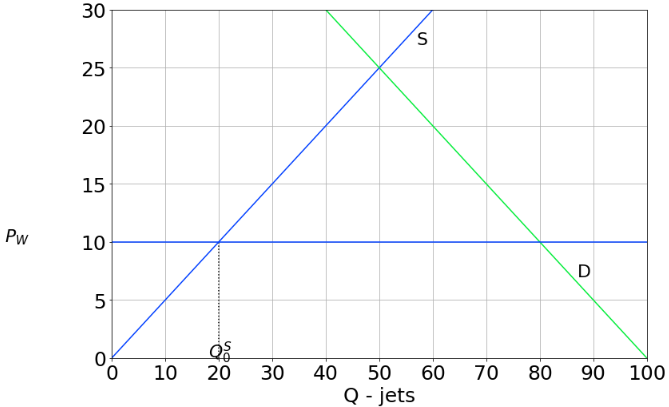
Where for instance the sequence  would be read as stating that ‘an increase in the relative price of wheat leads to a *rise* in the wage to rental ratio *w/r’*

d) In the boxes above draw in either  or  or  to indicate how each capital-labor ratio and real wage measure changes (does it go up, down or stay the same).

Suppose now that there is a sudden large influx of labor into the economy. The country is small on the world market so therefore relative product prices and factor prices do not change (factor-price equalization holds). In this scenario the Rybczynski theorem predicts that (fill in the blanks with  or  or  ):

Output of Wine will , output of computers will

**Part II (**15 pts**).** Consider the market for small passenger jets. Prices are measured in millions of dollars.



Suppose the world market price of jets is . If imports are allowed at , how many jets would be imported? Indicate domestic demand  on the horizontal axis on the graph in this free trade equilibrium (use indicator lines and a label to indicate quantity  similarly to how we’ve indicated  on the horizontal axis).

Now suppose the country implements an import quota system that issues licenses to only allow 20 foreign-made jets to be imported (only 20 licenses are issued an importer needs a license to bring in a foreign made jet). Use the diagram above to show how domestic quantities and prices will adjust. Draw a horizontal line to indicate the new domestic market price, call it P’. Also indicate with new indicator lines and horizontal axis labels the new quantities of domestic output and demand

With such a quota in place what is the new closed economy market equilibrium price of jets? P’ =

What is the ‘tariff-equivalent’ of the quota (i.e. what tariff percent rate would lead to the same imports? *t =*

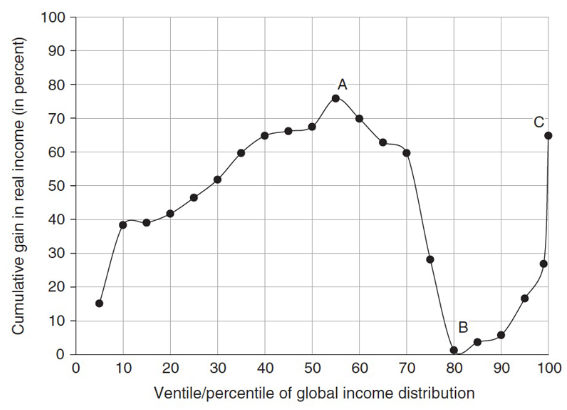
On the diagram clearly label graph areas **B** to indicate deadweight (from extra domestic resource cost), **D** to indicate DWL from lost domestic consumption. Label the area of quota rents **R**

What is the ***total* deadweight loss (B+D)** of this on the import of jets in million dollars? million.   
(hint: the area of a right triangle is ½ it’s base times its height). Quota rents are million.

What is the tariff equivalent of this quota? percent.

Last Name, First: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**III. Short essay (15 pts). Choose one of the following three questions (A, B or C) and then answer it in the box on the following page. Be organized and write neatly. You may use bullet points.**

1. Taken at face-value the textbook Ricardian and neo-classical trade models that we studied predict that free trade and factor mobility will lead to a rise in world incomes through more efficient resource allocations within and across countries and convergence in wages and rents across regions. This seems to offer justification for the *laissez-faire* (free trade and minimal government intervention in the economy) policy recommendations that countries like Britain and the United States have promoted around the world historically (Britain since the late 19th century) and the USA in the post-WWII era, and the institutions such as the World Bank and the IMF promoted and often imposed via policy conditionality on loans starting in the 1980s. Briefly describe historical evidence and theoretical reasons why critics such as Ha-Joon Chang have been skeptical of the historical claims that the Britain and the United States got rich through free trade and laissez-faire and their promotion of free trade. Why would those countries promote free trade if, according to their critics, they didn’t always practice what they preach?
2. CUNY Professor Branko Milanovic’s ‘Elephant Curve’ has been described as “one of the most famous charts in economics of the past decade.”

How might a graph like this be interpreted to describe the impacts of globalization (and other factors) on changes in the global distribution of income (which might be decomposed into changes in income inequality within and across countries) in this period. Briefly tie your discussion to the rise of populist and anti-globalization sentiments in the USA and Europe? Be brief (e.g. use bullet points) but also try to make clear the economic theory behind these explanations.

C. In the article ‘What do Trade Agreements Really Do?’ Dani Rodrik argues that while in the past economists viewed trade agreements as mechanisms for governments to commit themselves to achieving the efficiency gains from trade liberalization and as a way to bind themselves to resist pressures from special interests in import-competing sectors. In his view modern day ‘trade agreements’ are less and less about trade. What are modern agreements mostly about? What kinds of special interests are most powerful in lobbying to shape the content of these agreements? List some reasons why Rodrik and others are critical?

III. (20 pts) I am answering question (enter A or B). Use bullet points below. Be neat and organized.

LAST, FIRST NAME \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

IV (15 pts, all must answer). You are the spokesperson for a domestic canned food manufacturing association in a medium income developing country. Your country imports a lot of canned food. Firms in your industry want you to try to convince your country’s minister of economics and trade to offer your industry a package of measures to promote ‘infant industry industrialization.’ The minister is a well-trained and skeptical economist who understands the costs of protective measures given the many other pressing needs in the country. She hates would-be rent-seekers. Write a memo to yourself with key elements of your argument. Include (A) best argument(s) (e.g. identifying specific market failures that call for government action) (B) briefly list the specific temporary measures you want and how and why after 5 years of this policy, your industry will be able to stand on its own feet.