

Midterm Exam

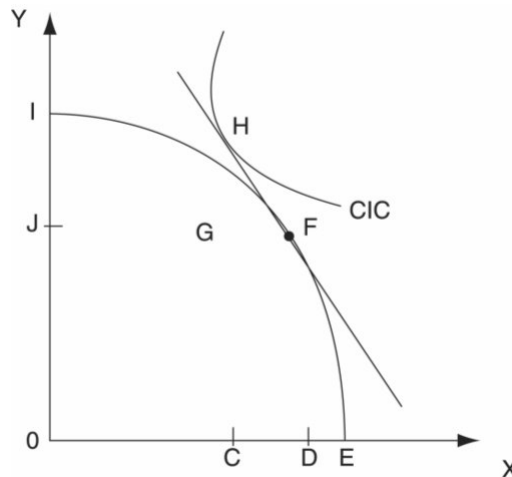
Name _____

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Instructions: There are two parts to this midterm. Part A consists of multiple choice questions. Please mark the answers to the multiple choice questions on the exam paper. Part A has 25 questions and is worth 60%. Part B is worth 40% and consists of short answer questions.

Part A: MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Answer the question(s) below based on the following diagram of a country that is in international trade equilibrium. Point G lies at the intersection of the straight lines between CH and JF. CIC represents the national indifference curves.



- 1) Refer to the figure above. If this country is labor abundant, then according to the HO theory good X should be _____ intensive.

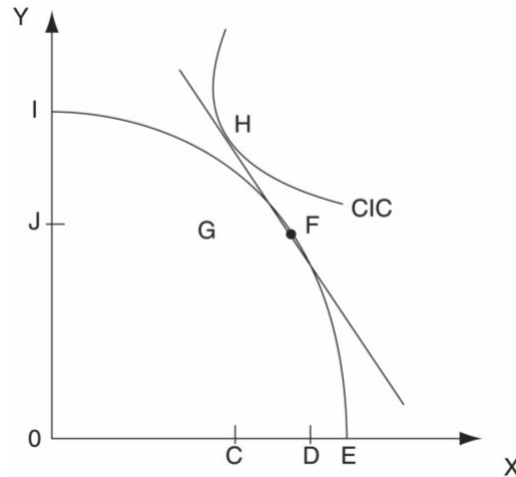
A) labor	B) capital
C) both capital and labor	D) Can't tell without more information

Answer: A

- 2) According to the HO model,
 - A) the gainers from trade outnumber the losers from trade.
 - B) the scarce factor necessarily gains from trade.
 - C) everyone automatically gains from trade.
 - D) None of the above.

Answer: A

Answer the question(s) below based on the following diagram of a country that is in international trade equilibrium.



- 3) Refer to the figure above. This country has comparative advantage in
- A) X.
 - B) Y.
 - C) both X and Y.
 - D) Can't tell without more information.

Answer: A

Answer the question(s) below based on the information in the following table, where the numbers represent the number of labor hours it will take to produce a unit of the given good

	Spain	France
Grapes	3	9
Textiles	1	2

The numbers represent the number of labor hours it will take to produce a unit of the given good.

- 4) Refer to the table above. Once trade begins, a possible international price (i.e. terms of trade) for textiles in terms of grapes is
- A) 4/15.
 - B) 2.
 - C) 2/5.
 - D) \$5.

Answer: A

- 5) A production subsidy combined with free trade
- A) has the same deadweight costs as a tariff.
 - B) has only production deadweight costs.
 - C) has only consumption deadweight costs.
 - D) None of the above.

Answer: B

- 6) The simultaneous export and import of widgets by the United States is an example of
- A) increasing returns to scale.
 - B) imperfect competition.
 - C) intra-industry trade.
 - D) inter-industry trade.
 - E) None of the above.

Answer: C

- 7) If output more than doubles when all inputs are doubled, production is said to occur under conditions of
- A) increasing returns to scale.
 - B) imperfect competition.
 - C) intra-industry trade.
 - D) inter-industry trade.
 - E) None of the above.

Answer: A

- 8) If a tariff on bikes causes domestic bike prices to rise by 20% and domestic value added in the domestic bike industry to rise by 30%, then
- A) the effective rate of protection is higher than the nominal rate.
 - B) the effective rate of protection of bikes is 30%.
 - C) the nominal rate of protection of bikes is 20%.
 - D) All of the above.

Answer: D

- 9) Which of the following is true (assume the small country case)?
- A) With either a tariff or a quota, an increase in demand leads to a higher price and more imports.
 - B) With a tariff, an increase in demand leads to a higher price and more imports.
 - C) With a quota, an increase in demand leads to a higher price and more imports.
 - D) None of the above are true.

Answer: D

- 10) Comparative advantage is determined by
- A) actual differences in labor productivity between countries.
 - B) relative differences in labor productivity between countries.
 - C) Both A and B.
 - D) Neither A nor B.

Answer: B

- 11) Consider a scenario where monopolistic competition prevails. When there are economies of scale, an increase in the size of the market will
- A) increase the number of firms and lower the price per unit.
 - B) decrease the number of firms and lower the price per unit.
 - C) decrease the number of firms and raise the price per unit.
 - D) increase the number of firms and raise the price per unit.
 - E) None of the above.

Answer: A

- 12) In theory, countries can impose tariffs
- A) only on exports.
 - B) only on imports.
 - C) on both imports and exports.
 - D) on imports, exports, and nontraded goods.

Answer: C

- 13) If the autarky price of S were lower in country A than in country B, then if trade were allowed
- A) A would likely export S to B.
 - B) A would likely import S from B.
 - C) neither country would want to trade.
 - D) None of the above.

Answer: A

- 14) In the HO model, the production possibility frontier is bowed out due to the assumption of
- A) increasing returns to scale.
 - B) identical tastes.
 - C) different factor intensities in the production of the two goods.
 - D) Two of the above.

Answer: C

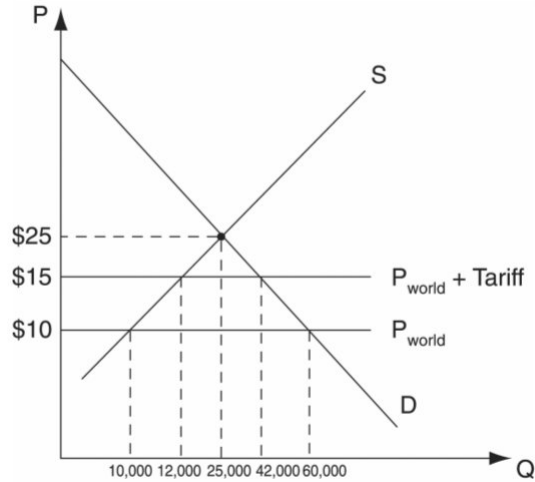
- 15) Let K_j and L_j denote the capital and labor inputs in the production of good j ($j=S,T$), then S is said to be capital intensive relative to T if
- A) $L_S < L_T$.
 - B) $K_S/L_S > K_T/L_T$.
 - C) $K_S > K_T$.
 - D) All of the above.

Answer: B

- 16) According to the factor price equalization theorem, if A is labor abundant, then once trade opens
- A) wages should rise and rents should fall in A.
 - B) wages and rents should fall in A.
 - C) wages should fall and rents should rise in A.
 - D) wages and rents should rise in A.

Answer: A

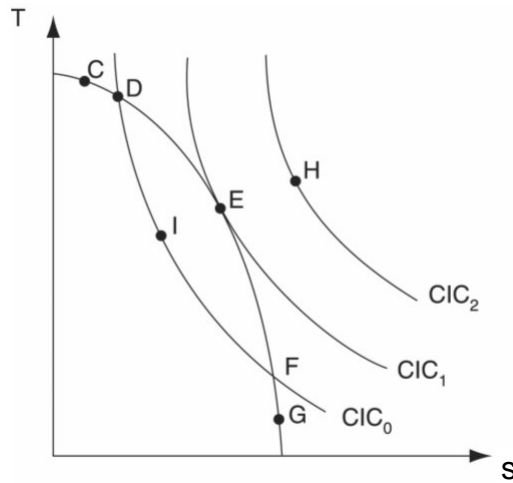
Answer the question(s) below based upon the following diagram.



- 17) Refer to the figure above. Domestic producers gain _____ because of the tariff.
- A) \$150,000 B) \$15 C) \$120,000 D) \$55,000

Answer: D

Answer the question(s) below based on the following diagram.



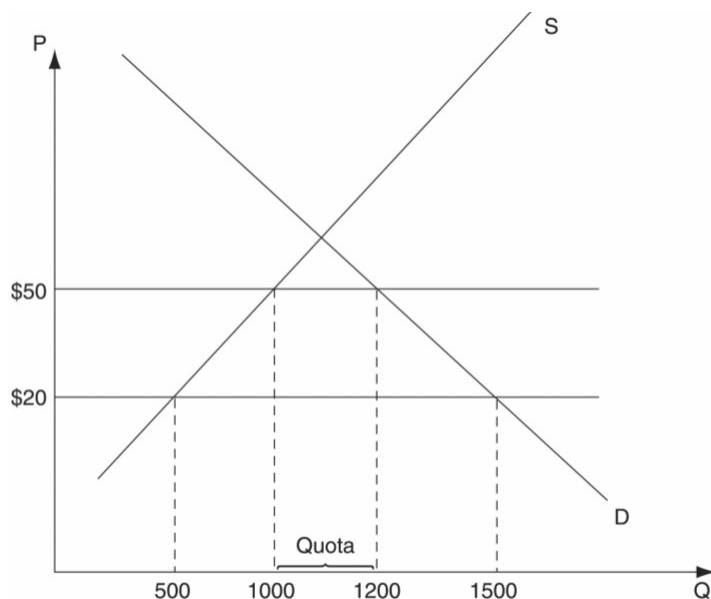
- 18) Refer to the figure above. Which of the following is true?
- A) A move from C to D would raise community satisfaction.
- B) The relative price of T is higher at C than at F.
- C) The relative price of S is higher at G than at D.
- D) All of the above are true.

Answer: D

- 19) If Canada imposes a tariff on bananas and if none are grown in Canada, this tariff has
- A) only revenue effects.
 - B) only protective effects.
 - C) both protective and revenue effects.
 - D) neither protective nor revenue effects.

Answer: A

Answer the question(s) below based on the following diagram.



- 20) Refer to the figure above. If the government was to auction quota licenses competitively, it could earn up to
- A) \$5000.
 - B) \$2000.
 - C) \$10000.
 - D) \$6000.

Answer: D

- 21) In autarky equilibrium,
- A) exports equal imports.
 - B) there is no trade.
 - C) production equals consumption.
 - D) All of the above.

Answer: D

- 22) Internal economies of scale arise when the cost per unit
- A) rises as the industry grows larger.
 - B) falls as the industry grows larger.
 - C) rises as the average firm grows larger.
 - D) falls as the average firm grows larger.
 - E) None of the above.

Answer: D

Answer the question(s) below based on the information in the following table

	Country	
Goods	A	B
Beer	3	9
Wine	1	2

(numbers indicate hours of labor per unit of output)

23) Refer to the table above. For trade to occur along the lines of comparative advantage, wages in A relative to wages in B (measured in the same currency)

- A) must be greater than \$2 but less than \$3.
- B) must be at least twice but less than 3 times as great.
- C) must be less than three times as small.
- D) Need more information to answer.

Answer: B

24) Refer to the table above. Country A has a comparative advantage in

- A) beer.
- B) wine.
- C) both beer and wine.
- D) neither beer nor wine.

Answer: A

25) Which of the following is true?

- A) In the Ricardian model, complete specialization seldom occurs due to the assumption of increasing opportunity costs.
- B) Complete specialization is more likely if opportunity costs change little as the production point moves closer to either axis.
- C) In the HO model complete specialization in the production of exports is a likely outcome of international trade.
- D) All of the above are true.

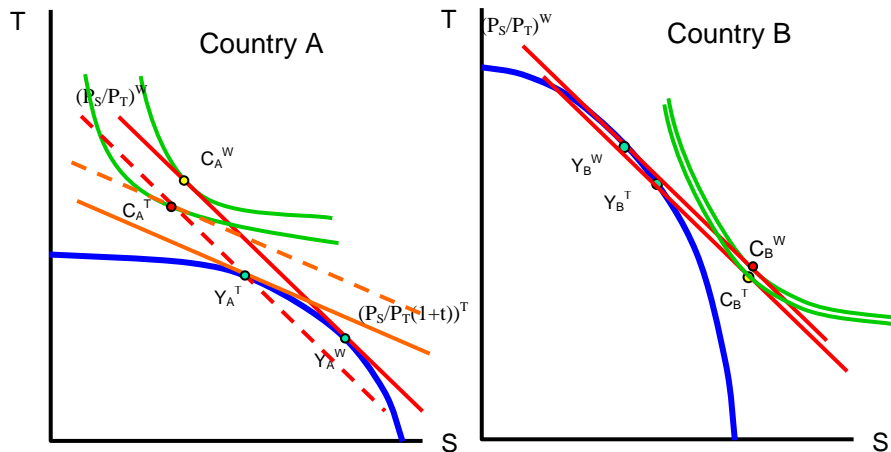
Answer: B

Part B: SHORT ANSWER QUESTIONS (40%)

Please answer the following short answer questions. **For essay type questions, please keep your answers for each question to a length of one page.** Points are awarded for the succinctness, consistency and clarity of your answer. **You will not get points for verbosity.** Feel free to use graphs (as they apply) to help elucidate your answer. Show any calculations as necessary in answering the questions.

26. (10%) This question is an application of what you learnt and saw in classes. Suppose that the world consists of two countries only, A and B. Use general equilibrium diagrams for both countries to show the effect on each country of country A imposing a tariff on its imports.

Answer: Suppose that we have two goods, S and T and that country A (without any loss of generality) exports good S and imports good T (vice versa for country B). This is depicted in the diagram below. Moreover, assume that country A is a small country, so that it cannot affect the world price of the product, i.e. the terms of trade, TOT . In a free trade equilibrium, countries A and B consume and produce at: (C_A^W, Y_A^W) and (C_B^W, Y_B^W) respectively, whilst facing a set of world prices $(P_S/P_T)^W$.



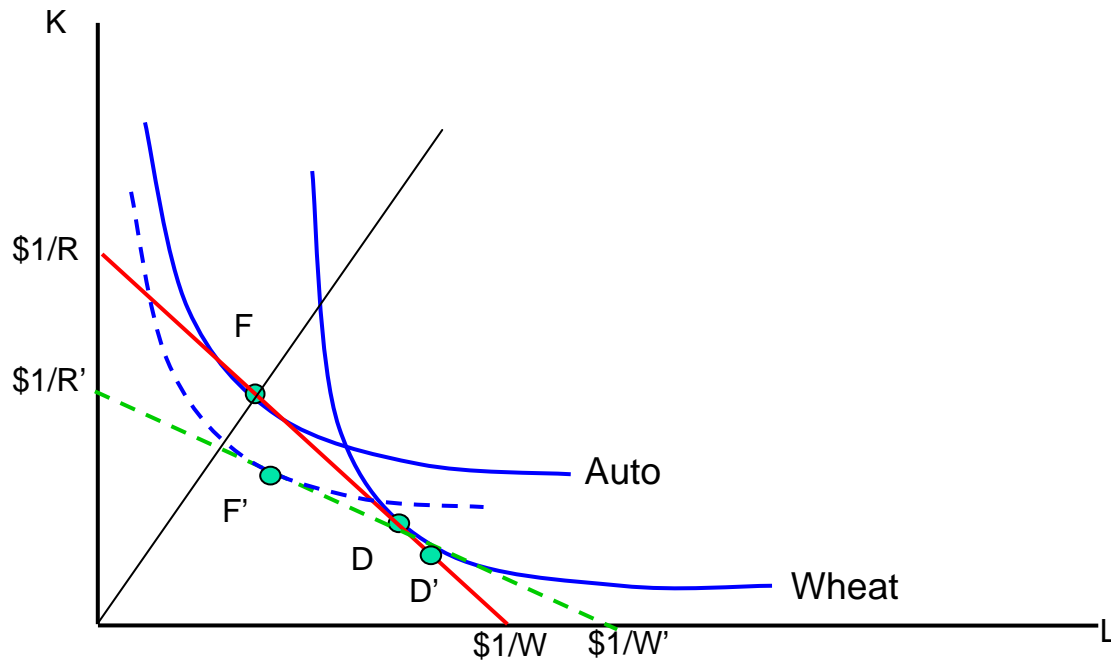
When the government in country A imposes an ad valorem tariff on good T , the imposition of the tariff leads to an increase in the domestic price of good T . Thus the relative price ratio, $(P_S/P_T)^W$ changes at home to become $[P_S/P_T^*(1+t)]^W < (P_S/P_T)^W$. This reduces imports of good T at home and encourages greater domestic production of good T whilst simultaneously lowering production of good S (i.e. we move along the PPF to Y_A^T). Consumption in country A now occurs at the C_A^T . This is because the distortion imposed by the tariff, now causes the tangency point to occur with the new price ratio faced at home, instead of at the original TOT passing through the new production point. Thus for country A, we see domestic production of T increasing, S decreasing, as well as decreased consumption of good T . Consumption of good S may or may not increase.

For country B, production moves along the PPF, but at the same TOT (since we assumed country A was a small country). Consumers in country B are not as well off as before due to the decrease in exports of good S from country A.

27. (10%) Within the Heckscher-Ohlin framework, assume that the two industries are automobiles and wheat. The automobiles industry is assumed to be capital intensive and the wheat industry, labor intensive. Suppose you are in the capital abundant country.

(i) [3 pts] Using the diagram below, draw a candidate free trade equilibrium for the country.

Answer: Free trade equilibrium is given by the two isoquants for Auto and Wheat, the isocost line. The optimal production points are F and D.



(ii) [3 pts] In the diagram above, show what happens if the price of automobiles rise.

Answer: The effects here are outlined by the Stolpher-Samuelson Theorem. The answer can be found straight from the lecture notes. An increase in the price of automobiles means that for a given value of production, e.g. \$1, output must be lower, so that we are on a lower isoquant for autos. As seen above, this means that there is a new point of tangency between the new isoquant for Autos and Wheat.

(iii) [4 pts] Suppose that you are a laborer in the wheat industry. As a result of the price increase in the automobile industry, are you better off or worse off? Explain!

Answer: An increase in the price of autos makes laborers in the wheat industry worse off. Their wage has fallen from W to W' , and so they can afford to buy less Wheat and Autos too (since price of autos went up!).

28. (20%) If you were an import-competing producer in a growing domestic market (i.e. demand shifting out), which trade instrument would you prefer in terms of its ability to protect you from foreign competition – a tariff, an import quota, or a subsidy? Please explain. [Note: credit is only given for your explanation!]

Answer: *Note, consistent explanations will give you points here. However, the “correct” answer is a quota. As an import-competing producer seeking protection against foreign competition, you would seek to limit the amount of foreign imports into your market. An import quota restricts the total amount. Moreover, if you were to buy any licenses auctioned off by the government, you would have all the rights to the domestic market.*

The problem with a tariff is that with growing demand, the amount of the tariff would have to grow with the demand in order to limit the amount of imports. Otherwise, for a given tariff rate, increased demand would cause the demand curve to shift out, leading to increased imports.

The same argument also applies with a domestic production subsidy. After the subsidy is imposed, if demand grows (i.e. demand curve shifts out), imports necessarily rise.