

Labor Productivity and Comparative Advantage

■ Multiple Choice Questions

1. Countries trade with each other because they are _____ and because of _____.
- (a) different, costs
 - (b) similar, scale economies
 - (c) different, scale economies
 - (d) similar, costs
 - (e) None of the above.

Answer: C

2. Trade between two countries can benefit both countries if
- (a) each country exports that good in which it has a comparative advantage.
 - (b) each country enjoys superior terms of trade.
 - (c) each country has a more elastic demand for the imported goods.
 - (d) each country has a more elastic supply for the supplied goods.
 - (e) Both (c) and (d).

Answer: A

3. The theory of comparative advantage states that a country has a comparative advantage in widgets if
- (a) output per worker of widgets is higher in that country.
 - (b) that country's exchange rate is low.
 - (c) wage rates in that country are high.
 - (d) the output per worker of widgets as compared to the output of some other product is higher in that country.
 - (e) Both (b) and (c).

Answer: D

4. Given the following information:

Unit Labor Requirements		
	Cloth	Widgets
Home	10	20
Foreign	60	30

- (a) Neither country has a comparative advantage.
- (b) Home has a comparative advantage in cloth.
- (c) Foreign has a comparative advantage in cloth.

- (d) Home has a comparative advantage in widgets.
- (e) Home has a comparative advantage in both products.

Answer: B

5. If it is ascertained that Foreign uses prison-slave labor to produce its exports, then home should
- (a) export cloth.
 - (b) export widgets.
 - (c) export both and import nothing.
 - (d) export and import nothing.
 - (e) All of the above.

Answer: A

6. If the Home economy suffered a meltdown, and the Unit Labor Requirements in each of the products increased to 30 for cloth and to 60 for widgets then home should
- (a) export cloth.
 - (b) export widgets.
 - (c) export both and import nothing.
 - (d) export and import nothing.
 - (e) All of the above.

Answer: A

7. If wages were to double in Home, then Home should:
- (a) export cloth.
 - (b) export widgets.
 - (c) export both and import nothing.
 - (d) export and import nothing.
 - (e) All of the above.

Answer: A

9. Given the following information:

Number of Units Produced by one Unit of Labor		
	Cloth	Widgets
Home	10	20
Foreign	60	30

- (a) Neither country has a comparative advantage.
- (b) Home has a comparative advantage in cloth.
- (c) Foreign has a comparative advantage in cloth.
- (d) Foreign has a comparative advantage in widgets.
- (e) Home has a comparative advantage in both products.

Answer: C

10. If it is ascertained that Foreign uses prison-slave labor to produce its exports, then home should
- (a) export cloth.
 - (b) export widgets.
 - (c) export both and import nothing.

- (d) export and import nothing.
- (e) All of the above.

Answer: B

12. In a two product two country world, international trade can lead to increases in
- (a) consumer welfare only if output of both products is increased.
 - (b) output of both products and consumer welfare in both countries.
 - (c) total production of both products but not consumer welfare in both countries.
 - (d) consumer welfare in both countries but not total production of both products.
 - (e) None of the above

Answer: B

13. As a result of trade, specialization in the Ricardian model tends to be
- (a) complete with constant costs and with increasing costs.
 - (b) complete with constant costs and incomplete with increasing costs.
 - (c) incomplete with constant costs and complete with increasing costs.
 - (d) incomplete with constant costs and incomplete with increasing costs.
 - (e) None of the above.

Answer: B

14. A nation engaging in trade according to the Ricardian model will find its consumption bundle
- (a) inside its production possibilities frontier.
 - (b) on its production possibilities frontier.
 - (c) outside its production possibilities frontier.
 - (d) inside its trade-partner's production possibilities frontier.
 - (e) on its trade-partner's production possibilities frontier.

Answer: C

15. In the Ricardian model, if a country's trade is restricted, this will cause all except which?
- (a) Limit specialization and the division of labor.
 - (b) Reduce the volume of trade and the gains from trade
 - (c) Cause nations to produce inside their production possibilities curves
 - (d) May result in a country producing some of the product of its comparative disadvantage
 - (e) None of the above.

Answer: C

16. If a very small country trades with a very large country according to the Ricardian model, then
- (a) the small country will suffer a decrease in economic welfare.
 - (b) the large country will suffer a decrease in economic welfare.
 - (c) the small country only will enjoy gains from trade.
 - (d) the large country will enjoy gains from trade.
 - (e) None of the above.

Answer: C

17. If the world terms of trade for a country are somewhere between the domestic cost ratio of H and that of F, then

- (a) country H but not country F will gain from trade.
- (b) country H and country F will both gain from trade.
- (c) neither country H nor F will gain from trade.
- (d) only the country whose government subsidizes its exports will gain.
- (e) None of the above.

Answer: B

18. If the world terms of trade equal those of country F, then
- (a) country H but not country F will gain from trade.
 - (b) country H and country F will both gain from trade.
 - (c) neither country H nor F will gain from trade.
 - (d) only the country whose government subsidizes its exports will gain.
 - (e) None of the above.

Answer: A

19. If a production possibilities frontier is bowed out (concave to the origin), then production occurs under conditions of
- (a) constant opportunity costs.
 - (b) increasing opportunity costs.
 - (c) decreasing opportunity costs.
 - (d) infinite opportunity costs.
 - (e) None of the above.

Answer: B

20. If the production possibilities frontier of one the trade partners ("Country A") is bowed out (concave to the origin), then increased specialization in production by that country will
- (a) Increase the economic welfare of both countries.
 - (b) Increase the economic welfare of only Country A.
 - (c) Decrease the economic welfare of Country A.
 - (d) Decrease the economic welfare of Country B.
 - (e) None of the above.

Answer: A

21. If two countries have identical production possibility frontiers, then trade between them is not likely if
- (a) their supply curves are identical.
 - (b) their cost functions are identical.
 - (c) their demand conditions identical.
 - (d) their incomes are identical.
 - (e) None of the above.

Answer: E

22. If two countries have identical production possibility frontiers, then trade between them is likely if
- (a) their supply curves are identical.
 - (b) their cost functions are identical.
 - (c) their demand functions differ.
 - (d) their incomes are identical.

(e) None of the above.

Answer: C

23. The earliest statement of the principle of comparative advantage is associated with

- (a) David Hume.
- (b) David Ricardo.
- (c) Adam Smith.
- (d) Eli Heckscher.
- (e) Bertil Ohlin.

Answer: B

24. If one country's wage level is very high relative to the other's (the relative wage exceeding the relative productivity ratios), then if they both use the same currency

- (a) neither country has a comparative advantage.
- (b) only the low wage country has a comparative advantage.
- (c) only the high wage country has a comparative advantage.
- (d) consumers will still find trade worth while from their perspective.
- (e) None of the above.

Answer: E

25. A country will have a comparative advantage in the product in which its

- (a) labor productivity is relatively low.
- (b) labor productivity is relatively high.
- (c) labor mobility is relatively low.
- (d) labor mobility is relatively high.
- (e) None of the above.

Answer: B

26. In a two-country, two-product world, the statement "Germany enjoys a comparative advantage over France in autos relative to ships" is equivalent to

- (a) France having a comparative advantage over Germany in ships.
- (b) France having a comparative disadvantage compared to Germany in autos and ships.
- (c) Germany having a comparative advantage over France in autos and ships.
- (d) France having no comparative advantage over Germany.
- (e) None of the above.

Answer: A

27. Assume that labor is the only factor of production and that wages in the United States equal \$20 per hour while wages in Japan are \$10 per hour. Production costs would be lower in the United States as compared to Japan if

- (a) U.S. labor productivity equaled 40 units per hour and Japan's 15 units per hour.
- (b) U.S. productivity equaled 30 units per hour whereas Japan's was 20.
- (c) U.S. labor productivity equaled 20 and Japan's 30.
- (d) U.S. labor productivity equaled 15 and Japan's 25 units per hour.
- (e) None of the above.

Answer: A

28. If the United States's production possibility frontier was flatter to the widget axis, whereas Germany's was flatter to the butter axis, we know that
- (a) the United States has no comparative advantage
 - (b) Germany has a comparative advantage in butter.
 - (c) the U.S. has a comparative advantage in butter.
 - (d) Not enough information is given.
 - (e) None of the above.

Answer: B

29. Suppose the United State's production possibility frontier was flatter to the widget axis, whereas Germany's was flatter to the butter axis. We now learn that the German mark sharply depreciates against the U.S. dollar. We now know that
- (a) the United States has no comparative advantage
 - (b) Germany has a comparative advantage in butter.
 - (c) the United States has a comparative advantage in butter.
 - (d) Not enough information is given.
 - (e) None of the above.

Answer: B

30. Which of the following statements is true
- (a) Free trade is beneficial only if your country is strong enough to stand up to foreign competition
 - (b) Free trade is beneficial only if your competitor does not pay unreasonably low wages
 - (c) Free trade is beneficial only if both countries have access to the same technology.
 - (d) All of the above
 - (e) None of the above

Answer: E

31. The Gains from Trade associated with the principle of Comparative Advantage depends on
- (a) The trade partners must differ in technology or tastes.
 - (b) There can be no more goods traded than the number of trade partners.
 - (c) There may be no more trade partners than goods traded.
 - (d) All of the above
 - (e) None of the above

Answer: A

32. The Country of Rhozundia is blessed with rich copper deposits. The cost of Copper produced (relative to the cost of Widgets produced) is therefore very low. From this information we know that
- (a) Rhozundia has a comparative advantage in Copper
 - (b) Rhozundia should export Copper and import Widgets
 - (c) Rhozundia should export Widgets and export Copper
 - (d) Both (a) and (b) are true
 - (e) None of the above.

Answer: E

33. We know that in antiquity, China exported silk because no-one in any other country knew how to produce this product. From this information we learn that

- (a) China enjoyed a comparative advantage in Silk
- (b) China enjoyed an absolute advantage, but not a comparative advantage in silk.
- (c) No comparative advantage exists because technology was not diffused
- (d) China should have exported silk even though it had no comparative advantage
- (e) None of the above.

Answer: A

34. If two countries in Autarky (not engaged in international trade) begin trading with another in a manner consistent with the Ricardian model of comparative advantage, then
- (a) The amount of labor required to produce one unit of imports will decrease in both countries.
 - (b) The amount of labor required to produce one unit of both products will decrease in both countries.
 - (c) The amount of labor required to produce one unit of imports will decrease only in the relatively labor abundant country
 - (d) The amount of labor required to produce one unit of imports will decrease only in the relatively capital abundant country.
 - (e) None of the above.

Answer: A

■ Essay Questions

1. Many countries in Sub-Saharan Africa have very low labor productivities in many sectors, in manufacturing and agriculture. They often despair of even trying to attempt to build their industries unless it is done in an autarkic context, behind protectionist walls because they do not believe they can compete with more productive industries abroad. Discuss this issue in the context of the Ricardian model of comparative advantage.

Answer: The Ricardian model of comparative advantage argues that every country must have a comparative advantage in some product (assuming there are more products than countries).

2. In 1975, wage levels in South Korea were roughly 5% of those in the United States. It is obvious that if the United States had allowed Korean goods to be freely imported into the United States at that time, this would have caused devastation to the standard of living in the United States, because no producer in this country could possibly compete with such low wages. Discuss this assertion in the context of the Ricardian model of comparative advantage.

Answer: Regardless of relative wage levels, the United States would be able to provide its populace with a higher standard of living than would be possible without trade. Also, low wages tend to be associated with low productivities.

3. The evidence cited in the chapter using the examples of the East Asia New Industrializing Countries suggests that as international productivities converge, so do international wage levels. Why do you suppose this happened for the East Asian NICs? In light of your answer, what do you think is likely to happen to the relative wages (relative to those in the United States) of China in the coming decade? Explain your reasoning.

Answer: Following the logic of the Ricardian model of comparative advantage, the East Asian countries played to their respective comparative advantages. This allowed the world demand to provide excess demands for their relatively abundant labor, which in turn tended to raise these wages. If China follows the same pattern, their wages levels should also be expected over time to converge to those in their industrialized country markets.

4. An examination of the Ricardian model of comparative advantage yields the clear result that trade is (potentially) beneficial for each of the two trading partners since it allows for an expanded consumption choice for each. However, for the world as a whole the expansion of production of one product must involve a decrease in the availability of the other, so that it is not clear that trade is better for the world as a whole as compared to an initial situation of non-trade (but efficient production in each country). Are there in fact gains from trade for the world as a whole? Explain.

Answer: If we were to combine the production possibility frontiers of the two countries to create a single world production possibility frontier, then it is true that any change in production points (from autarky to specialization with trade) would involve a tradeoff of one good for another from the world's perspective. In other words, the new solution cannot possibly involve the production of more of both goods. However, since we know that each country is better off at the new solution, it must be true that the original points were not on the trade contract curve between the two countries, and it was in fact possible to make some people better off without making others worse off, so that the new solution does indeed represent a welfare improvement from the world's perspective.

5. It is generally claimed that a movement from autarky to free trade consistent with Ricardian comparative advantage increases the economic welfare of each of the trade partners. However, it may be demonstrated that under certain circumstances, not everyone in each country is made better off. Illustrate such a case.

Answers: (a) If inter-generational, or economic growth considerations are taken into account, then a country may end up specializing in a good that has no or few growth linkages with the rest of the economy (e.g. an "enclave" sector).

- (b) If some of the residents of a country have tastes biased toward their exportable, then they may suffer due to the trade-affected increase in the market price of the exportable good.

6. The Ricardian proposition that international trade will benefit any country ("gains from trade") as long as the world terms of trade do not equal its autarkic relative prices is a straightforward and powerful concept. Nevertheless, it is impossible to demonstrate empirically. Why?

Answer: This is because there is no way of knowing exactly what are, or would have been, the autarky MRTs or MRSs. This is because there is no single example in the world of a country that is totally unengaged in international trade.