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Midterm #1

Part 1. Multiple Choice Questions (2 pts. per question).

Questions 1-3 relate to the information below.

Assume we have created a Production Possibilities Curve (PPC) model designed to explain changes in the potential output of each good produced within Country X. To make this model manageable, we assume that Country X only produces 2 different goods (steel and rubber). We also assume that the firms who make decisions in this model seek to maximize their own profit. Lastly, although variables like productivity and technology affect the potential output of steel and rubber, productivity and technology are not identified on the graph of this model.

1. Based on the information provided above, which of the following is the best example of a simplifying assumption:
 - a. assuming that productivity and technology affect output in this model
 - b. assuming that productivity and technology are not identified on the graph of this model
 - c. assuming that firms within this model seek to maximize their own profit
 - d. assuming that Country X only produces 2 different goods
 - e. none of the above are examples of a simplifying assumption

2. Based on the information provided above, which of the following is the best example of a behavioral assumption:
 - a. assuming that productivity and technology affect output in this model
 - b. assuming that productivity and technology are not identified on the graph of this model
 - c. assuming that firms within this model seek to maximize their own profit
 - d. assuming that Country X only produces 2 different goods
 - e. none of the above are examples of a simplifying assumption

3. Which of the following would be the best example of a statement involving positive economic analysis with this model:
 - a. if the government of Country X focused on increasing the productivity of producing steel, then the potential output of steel will increase
 - b. the government of Country X should focus on increasing the productivity of producing steel, because increased output within steel leads to a larger increase in employment
 - c. the government of Country X should invest more heavily in education so that the productivity of producing both steel and rubber can increase and incomes can rise more quickly
 - d. the government of Country X should choose to produce either steel or rubber, based on where Country X has a comparative advantage
 - e. all of the above are examples of positive economic analysis

4. Assume that you as you study the demand for specialty beer, a colleague makes the remark that the demand curve for specialty beer should be positively sloped, because higher prices elicit a change in perception about the product and they will buy more units at the higher price. Based on your understanding of the assumptions behind economic models, what assumption did your colleague violate with that statement?

- a. your colleague made an assumption involving normative economic analysis
- b. the assumption of simplification
- c. a behavioral assumption
- d. the assumption of net benefit maximization
- e. the analytical assumption of ceteris paribus

5. Opportunity cost is defined as:

- a. the monetary cost associated with making a choice
- b. the overall cost of the next best alternative associated with making a choice
- c. the effect that one variable has on other variables whenever a choice is made
- d. the explicit cost associated with making a choice
- e. both a and d are correct

6. Which of the following is a true statement about the PPC:

- a. a PPC embodies the concept of opportunity cost by showing us that it is possible to move inside the PPC or that shifts in the PPC may occur
- b. a PPC embodies the concept of opportunity cost by showing us the maximum possible output that can currently be produced
- c. a PPC embodies the concept of opportunity cost by the fact that the PPC has a negative slope
- d. a PPC embodies the concept of opportunity cost by showing us that our graph only involves the production of two goods, rather than three or more goods
- e. a PPC embodies the concept of opportunity cost by showing us that there is a positive relationship between productivity and output

7. Points located outside a PPC represent which of the following:

- a. efficient production points
- b. inefficient production points
- c. points that can only be attained when the economy is at full employment
- d. points that can only be attained when there is no unemployment
- e. none of the above

8. If Country B chooses to implement the Law of Comparative Advantage and specialize in producing the greatest possible output Country B is capable of producing, then which of the following is true:

- a. the PPC of Country B will be producing at an efficient point
- b. the PPC of Country B will shift output for the good where they are specializing
- c. the PPC of a Country B will reflect a decrease in overall unemployment
- d. the PPC of Country B will experience a decrease in opportunity cost
- e. the PPC of Country B will show that Country B can produce outside of their PPC

Questions #9-12 refer to the tables below.

The tables represent the output for two countries (Microland and Macroland) and their production of two goods, bologna and bratwurst.

Microland	A	B
Quantity of Bologna	5	0
Quantity of Bratwurst	0	2

Macroland	Y	Z
Quantity of Bologna	8	0
Quantity of Bratwurst	0	4

9. What is the opportunity cost in Microland of producing each additional unit of bologna as this economy moves from producing at pt. B to producing at pt. A?

- a. 2 units of bratwurst
- b. $\frac{2}{5}$ of a unit of bratwurst
- c. 5 units of bratwurst
- d. $\frac{5}{2}$ units of bratwurst
- e. none of the above

10. What is the opportunity cost in Macroland of producing each additional unit of bratwurst as this economy moves from producing at pt. Y to producing at pt. Z?

- a. 4 units of bologna
- b. $\frac{1}{2}$ of a unit of bologna
- c. 8 units of bologna
- d. 2 units of bologna
- e. none of the above

11. Which of the following statements about comparative advantage is true:

- a. there is no comparative advantage for either country
- b. Macroland has a comparative advantage in both goods
- c. Microland has a comparative advantage in bologna, and Macroland has it in bratwurst
- d. Microland has a comparative advantage in bratwurst, and Macroland has it in bologna

12. If workers in Macroland become temporarily unemployed, then what must be true:

- a. Macroland will have temporarily higher unemployment than Microland
- b. Macroland will have temporarily lower unemployment than Microland
- c. Macroland's PPC will decrease (shift in) temporarily
- d. Production will occur temporarily at a point inside Macroland's PPC

13. As discussed in class, what is the basic idea behind the Law of Comparative Advantage?

- a. although individuals have unlimited wants, this Law allows those wants to be satisfied
- b. one nation can become more wealthy than other nations by exploiting them
- c. focus on what you're good at, cooperate with others, and it's possible to consume more
- d. countries are much better off when they limit trade with "low wage nations"
- e. an industry grows faster when it experiences technological change

Questions #14-18 refer to the following situation:

Assume that the Louisville market for ridesharing (e.g. using Uber and Lyft) involves many demanders and suppliers, and that these curves have their typical slopes. We can further assume that ridesharing is a normal good and that this market does not include taxis and rental cars.

14. How is this market affected when there is a large increase in visitors to Louisville?

- a. increase in equilibrium price and increase in equilibrium quantity
- b. decrease in equilibrium price and decrease in equilibrium quantity
- c. increase in equilibrium price and decrease in equilibrium quantity
- d. decrease in equilibrium price and increase in equilibrium quantity

15. How is this market affected when legislation increases the cost to rideshare firms by forcing these firms to provide health care benefits and insurance to their employees (i.e. drivers)?

- a. increase in equilibrium price and increase in equilibrium quantity
- b. decrease in equilibrium price and decrease in equilibrium quantity
- c. increase in equilibrium price and decrease in equilibrium quantity
- d. decrease in equilibrium price and increase in equilibrium quantity

16. How is this market affected by a large reduction in the price of rental cars?

- a. increase in equilibrium price and increase in equilibrium quantity
- b. decrease in equilibrium price and decrease in equilibrium quantity
- c. increase in equilibrium price and decrease in equilibrium quantity
- d. decrease in equilibrium price and increase in equilibrium quantity

17. How is this market affected by an increase in consumer income?

- a. decrease in supply
- b. increase in supply
- c. decrease in demand
- d. increase in demand
- e. increase in demand and increase in supply

18. How is this market affected by decreases in the cost of gasoline?

- a. decrease in supply
- b. increase in supply
- c. decrease in demand
- d. increase in demand
- e. increase in demand and increase in supply

19. How is a market currently affected when firms within the market expect higher future profit.

- a. demand in this market will increase
- b. demand in this market will decrease
- c. supply in this market will increase
- d. supply in this market will decrease
- e. demand and supply in this market will increase

20. Which of the following shifts is the best explanation for why a market's equilibrium price decreases as the equilibrium quantity increases:

- a. a decrease in supply
- b. an increase in supply
- c. a decrease in demand
- d. an increase in demand
- e. an increase in demand and increase in supply

Questions #21-23 concern the following situation.

Assume that in Year 1, the Government calculated the following CPIs for each of these cities:

San Francisco, CA	168.3	Houston, TX	147.1
New York, NY	172.1	Philadelphia, PA	171.9
Los Angeles, CA	158.9	Detroit, MI	158.3

21. Which of the cities above offers the highest real income for someone earning \$35,000 in nominal income during Year 1?

- a. San Francisco
- b. New York
- c. Los Angeles
- d. Houston
- e. Detroit

22. If your nominal income in both the base year and Year 1 within the New York area was \$40,000, then what was the change in your real income between the base year and Year 1?

- a. decrease in real income of \$16,758
- b. decrease in real income of \$39,768
- c. decrease in real income of \$25,768
- d. no change in real income
- e. none of the above

23. If you're offered \$40,000 in Philadelphia, then which (if any) of the following alternative offers provide you with greater purchasing power in Year 1:

- a. \$40,000 in New York
- b. \$36,000 in Houston
- c. \$39,000 in San Francisco
- d. \$35,000 in Los Angeles
- e. none of the above

24. Demand pull inflation will occur as the result of:

- a. increases in productivity
- b. sharp increases in the supply of available labor
- c. sharp increases in consumer debt
- d. an increase in the number of firms operating within the country

25. What do quantities purchased (for each good) reflect in the CPI?
- a. quantities are used to more easily calculate the CPI inflation rate
 - b. quantities help us see whether there are increases in quality over different years
 - c. the quantity purchased tells us whether consumer prices are constant in different years
 - d. quantities serve as "weights", telling us the relative importance of each good in the CPI

26. What is disinflation?
- a. an increase in the price level
 - b. a decrease in the price level
 - c. a decrease in the inflation rate over time
 - d. an increase in the inflation rate over time
 - e. a very high inflation rate (e.g. greater than 1000% per year)

27. Which of the following is the best explanation as to the difference between nominal and real GDP:
- a. nominal GDP is measured in current dollars, real GDP is measured in constant dollars
 - b. nominal GDP includes goods produced only within our borders, real GDP includes all goods, no matter where they are produced
 - c. nominal GDP excludes inflation from the calculation of GDP, real GDP includes inflation
 - d. nominal GDP is a true measure of purchasing power, real GDP is not

28. How do you calculate the national income accounting measure called National Income?
- a. Gross Domestic Product (GDP) minus Depreciation
 - b. Net Domestic Product minus Depreciation
 - c. Net Domestic Product minus Indirect Business Taxes
 - d. Personal Income minus Indirect Business Taxes
 - e. Net Domestic Product plus income currently received, but not currently earned

29. How do you calculate the national income accounting measure called Disposable Income?
- a. Gross Domestic Product minus Indirect Business Taxes
 - b. Personal Income minus Indirect Business Taxes
 - c. Personal Income minus income currently earned, but not currently received
 - d. Personal Income minus Personal Taxes
 - e. National Income minus Personal Income

30. By definition, what is an indirect business tax?
- a. any tax on the resources a firm will buy, which is placed at an earlier stage of production
 - b. a tax that is not levied directly on profits
 - c. taxes on imported goods
 - d. taxes placed on services, but not on physical goods
 - e. a profit tax (e.g. for firms earning what the government considers excessive profit)

31. By definition, what is a transfer payment?
- a. a transfer payment is income received by individuals who work outside of the country
 - b. a transfer payment is a tax that is not levied directly on profits
 - c. a transfer payment is a tax on imported goods
 - d. a transfer payment is an example of income currently earned that is not currently received
 - e. a transfer payment is an example of income currently received that is not currently earned
32. If people go from being officially unemployed to becoming a "discouraged worker", then:
- a. the unemployment rate remains the same
 - b. the unemployment rate increases
 - c. the unemployment rate decreases
 - d. the unemployment rate will increase or decrease, depending on whether this change is voluntary or involuntary
33. Which of the following is most likely to cause an increase in cyclical unemployment?
- a. after any technological change that causes workers to become unemployed
 - b. when the minimum wage is increased during the business cycle
 - c. after workers voluntarily quit their existing jobs
 - d. any period where aggregate demand is decreasing
 - e. any change in the seasons which leads to an increase in agricultural unemployment

The information below corresponds with Questions #34-35

The economy of Country X has the following individuals (assume no overlap across categories):

Number of people out of work and actively seeking a job: 50

Number of people who are retired: 120

Number of people who are institutionalized: 100

Number of people who are employed with a full-time job: 600

Number of people who are employed with a part-time job: 150

Number of people who are discouraged workers: 100

34. What is this economy's current unemployment rate?
- a. 6.25%
 - b. 6.67%
 - c. 5.56%
 - d. 16.67%
 - e. 20.00%
35. What is this economy's current participation rate?
- a. 73.53%
 - b. 88.89%
 - c. 71.43%
 - d. 78.43%
 - e. 88.24%

Part 2. Short Answer Questions (30 points possible in this section)

Questions #1-4 consider the PPC relationship in Country A for tractors and automobiles. You may use graphs as part of your explanation or just explain without a graph.

[4 pts] 1. How does an increase in the demand for tractors affect the PPC of Country A?
(assume full employment throughout this change)

[4 pts] 2. How does a decrease in the productivity of tractor company employees (only) affect the PPC of Country A?

[4 pts] 3. How does technological change within (only) the automobile industry affect the PPC of Country A?

[4 pts] 4. How would relaxed migration policy, which leads to an increase in migration into Country A, affect the PPC of Country A?

Part 2. Short Answer Questions cont.

In answering the question below, if a calculation is required, then you must show any relevant work or make it very clear as to how you arrived at your answer. Just providing an answer without supporting work or any explanation will not allow you to get any credit for your answer.

[8 pts] 5. The Tables below represent the Production Possibilities of two different countries, Country X and Country Y, who produce wheat and rye with constant opportunity cost.

Country X	A ₁	A ₂	A ₃	A ₄
Quantity of Wheat	0	30	45	75
Quantity of Rye	100	60	40	0

Country Y	B ₁	B ₂	B ₃	B ₄
Quantity of Wheat	0	20	60	100
Quantity of Rye	50	40	20	0

Show which country has the comparative advantage in producing wheat, and which country has the comparative advantage in producing rye?

Note that there is work involved with answering this question, and you must show enough of your work to make it very clear as to how you got your answer.

Part 2. Short Answer Questions cont.

[6 pts] 6. Suppose you're the manager of some rural bank (the only bank in the area), and you know that inflation is coming. What would you do with the interest rates you charge on fixed rate loans? Explain.