

Directions: Unless otherwise stated, assume the following:

- Decision making is rational
- Markets are perfectly competitive
- Prices are in Dollars (\$)
- The Midpoint Method is used for calculating Elasticity.
- Price Elasticity of Demand is a positive number (Absolute Value).
- If a producer/consumer is indifferent about producing/consuming a good, they will produce/consume the good.

1. Erika's Doughnut shop has a year remaining on an unbreakable lease on its building, requiring a \$15000 yearly payment. If Erika operates over the next year, it is estimated that she will have a revenue of \$49000 and operating (variable) costs of \$37000. Erika only knows how to make doughnuts, so her only other option is to work at Doughnut Emporium, which pays \$10000 a year. What is Erika's Profit-Maximizing choice?
 - a. Close the shop now and work at Doughnut Emporium
 - b. Keep the shop open for the year
 - c. She is indifferent
 - d. Not enough information
 - e. NOTA

2. Based on the income and consumption schedule below, what is the marginal propensity to consume?

Real disposal income	Consumption
\$180,000	\$190,000
\$220,000	\$220,000
\$260,000	\$250,000

- a. .75
 - b. .80
 - c. .90
 - d. 1.33
 - e. NOTA
3. Lillian, Ellen, and Beverly want new phones. Lillian's willingness to pay is \$420, Ellen's willingness to pay is \$357, and Beverly's willingness to pay is \$176. Assume that each of their willingnesses to pay for a 2nd new phone is \$0. If new phones cost \$276 each, what is the consumer surplus, in Dollars?
 - a. \$81
 - b. \$125
 - c. \$144
 - d. \$225
 - e. NOTA

For Questions 4–7, use the following information:

In the market for Hazelnut Spread Jars, the demand curve can be modeled by the equation $QD = 200 - 10 \cdot P$, where QD is the quantity demanded, and P is the price in Dollars.

Similarly, the supply curve can be modeled by $QS = 10 \cdot P$.

4. Using $PED =$ Price Elasticity of Demand and $PES =$ Price Elasticity of Supply, what is the Price Elasticity of Demand and of Supply in the Hazelnut Jar market at the Current Equilibrium?
 - a. $PED = 2, PES = 0.5$
 - b. $PED = 2, PES = 1$
 - c. $PED = 1, PES = 0.5$
 - d. $PED = 1, PES = 1$
 - e. NOTA

5. Assume no externalities exist in the Hazelnut Spread Market. If the government imposes a consumption tax of \$2 per Jar, what is the new Quantity Consumed?
 - a. 60
 - b. 70
 - c. 75
 - d. 80
 - e. NOTA

6. Assume no externalities exist in the Hazelnut Spread Market. If the government imposes a consumption tax of \$2 per Jar, what is the Deadweight Loss?
 - a. \$5
 - b. \$10
 - c. \$20
 - d. \$40
 - e. NOTA

7. The government imposes a price ceiling of \$6 on Hazelnut Spread Jars. What is the surplus/shortage in the Hazelnut Spread Jar market after this tax?
 - a. Shortage of 120
 - b. Shortage of 40
 - c. Surplus of 40
 - d. Surplus of 120
 - e. NOTA

For questions 7 and 8, Henrik, Jonathan, and Muzi are eating at the American Home of Waffles (AHOW). Their willingness to pay for their first, second, and third waffles is listed below.

	1st Waffle	2nd Waffle	3rd Waffle
Henrik	\$6.30	\$5.70	\$4.90
Jonathan	\$5.20	\$4.50	\$4.10
Muzi	\$5.90	\$5.50	\$4.60

8. The price of waffles at AHOW is \$4.70. If Henrik, Jonathan, and Muzi are the only customers, and none of them want more than 3 Waffles, what is the Consumer Surplus?
- \$5.30
 - \$5.40
 - \$5.50
 - \$5.60
 - NOTA
9. Which customers exhibit Diminishing Marginal Utility?
- Henrik
 - Muzi
 - Muzi and Jonathan
 - Henrik, Muzi, and Jonathan
 - NOTA
10. Economic Data in the country of Sanikalia is collected every 10 years. In 2009, Sanikalia's Nominal GDP was \$7000. In 2019, the Nominal GDP is \$42000. In that same 10 year period, Prices rose 20%, and the population increased by 160. If Real GDP Per Capita is now 4 times what it was in 2009, what is the current population of Sanikalia?
- 240
 - 320
 - 640
 - 800
 - NOTA
11. The country of Inflationistan, which uses the dollar currency, has been experiencing an inflation rate of 100% per day. A week ago, Sanika put a certain amount of cash in her wallet, and a certain amount of Gold buried underground. Together, her cash and gold were worth \$720 a week ago. Gold's real value did not change. Now, Sanika discovers that her money and property is collectively worth \$13420. How much cash was she holding in her wallet?
- \$600
 - \$620
 - \$640
 - \$660
 - NOTA

For Questions 12–14, use the following information:

In the United States' Domestic Market for Beef, $QD = 120 - 4 \cdot P$ and $QS = 8 \cdot P$. QD and QS are the Quantity Demanded and Supplied, respectively, measured in billions of pounds (weight). P is price per pound, in Dollars. The World Price of Beef is \$3 lower than in the United States. Assume the US is small relative to the World Market.

12. If the United States refuses to trade with the rest of the world, what is the Deadweight Loss (in the US) relative to the Free Trade case?
- \$24 billion
 - \$36 billion
 - \$45 billion
 - \$54 billion
 - NOTA
13. The US allows trade, but imposes a Tariff of \$2 per pound of Beef. How much government revenue is derived from this Tariff?
- \$12 billion
 - \$18 billion
 - \$24 billion
 - \$30 billion
 - NOTA
14. The United States pursues free trade. How much do Consumer Surplus (CS) and Producer Surplus (PS) change in the Beef Market relative to when the US imposes a \$2 Tariff?
- CS decreases by \$104 billion; PS increases by \$168 billion
 - CS decreases by \$112 billion; PS increases by \$168 billion
 - CS increases by \$112 billion; PS decreases by \$180 billion
 - CS increases by \$176 billion; PS decreases by \$128 billion
 - NOTA
15. The United States (which uses the dollar) and India (which uses the rupee) are trading. Suppose that India becomes politically unstable, while the US maintains stability. Which of the following is likely to happen?
- The rupee depreciates and India exports more to the United States
 - The rupee appreciates and India imports more from the United States
 - The dollar appreciates and India imports more from the United States
 - The dollar depreciates and India exports more to the United States
 - NOTA

For questions 16–19, use the following information:

The countries of Arjuntina and Bengladesh each can produce one of two goods: Iron and Rye. A worker from Arjuntina can produce either 20 pounds of Iron or 30 bushels of Rye in a year. A worker from Bengladesh can produce either 10 pounds of Iron or 8 bushels of Rye. There are 150 workers in Bengladesh and 40 in Arjuntina. A worker **can not** produce both Rye and Iron in a year.

16. If neither country trades, each country will produce and consume 6 bushels of Rye per worker, and use their remaining resources to produce Iron. How many pounds of Iron do the countries produce together?
 - a. 970
 - b. 1010
 - c. 1050
 - d. 1090
 - e. NOTA

17. Now, Arjuntina and Bengladesh trade. What is the maximum amount of Iron (in pounds) that can be produced/consumed if each worker must still consume 6 bushels of Rye per year?
 - a. 1540
 - b. 1570
 - c. 1600
 - d. 1630
 - e. NOTA

18. If each country specializes completely in the good for which they have the comparative advantage, what is the change in Iron and Rye production (in pounds/bushels) from Question 17?
 - a. Iron increases by 10, Rye decreases by 8
 - b. Iron increases by 20, Rye decreases by 16
 - c. Iron increases by 20, Rye decreases by 30
 - d. Iron decreases by 20, Rye increases by 30
 - e. NOTA

19. If the values of the two goods are currently:
Iron - \$20 per pound
Rye - \$20 per bushel
What is the maximum value of the combined GDP of both countries?
 - a. \$53200
 - b. \$53600
 - c. \$54000
 - d. \$54400
 - e. NOTA

Chenrolet is a car-manufacturing company, whose Total Costs can be modeled by the function: $TC = 2X^2 - X + 70$, where X is the number of Cars Produced, in thousands (Chenrolet does not have to produce a number of Cars that is a multiple of 1000), and TC is measured in thousands of dollars. When 0 cars are produced, Variable Costs are \$0.

20. Chenrolet is currently producing 1000000 cars. What is the Marginal Cost of producing the next thousand cars, in thousands of dollars?
- 3994
 - 3997
 - 4001
 - 4005
 - NOTA
21. In Lu land, the MPC is 0.90. President Lu increases tax rates, and his government collects an additional \$20 billion. What will be the maximum impact on the GDP?
- GDP increases by \$200 billion
 - GDP increases by \$180 billion
 - GDP decreases by \$200 billion
 - GDP decreases by \$180 billion
 - NOTA
22. You are reading an annual summary of economic performance, and you notice that Unemployment and Prices have increased. Which of the following COULD explain such an economic performance?
- A decrease in consumer spending
 - A government policy of lowering interest rates
 - Environmental regulations are reduced
 - A tariff on raw materials
 - NOTA
23. The Federal Reserve decides to buy bonds in open-market operations. As a result, the International Value of the Dollar _____, US Exports _____, and US Imports _____.
- Appreciates, Increase, Decrease
 - Appreciates, Decrease, Increase
 - Depreciates, Increase, Increase
 - Depreciates, Increase, Decrease
 - NOTA
24. The economy of Zhaoland is currently in a recession. The government of Zhaoland takes no policy action. In the Long-Run, what happens to Short-Run Aggregate Supply (SRAS), Long-Run Aggregate Supply (LRAS), Output, and Price Level?
- SRAS increases, LRAS increases, Output increases, Prices decrease
 - SRAS increases, LRAS is unaffected, Output increases, Prices decrease
 - SRAS decreases, LRAS increases, Output increases, Prices increase
 - SRAS decreases, LRAS is unaffected, Output is unaffected, Prices increase
 - NOTA

For questions 25–27, use the following information:

Suppose the following about the economy of Canada:

- Banks hold \$720 in required reserves
- Banks hold \$240 in excess reserves
- Banks hold \$1680 in Canadian Treasury Bonds
- Canadians hold \$4800 in Demand Deposits
- Canadians hold all their currency in Demand Deposits (no cash)

25. What is the value of existing loans made by Canadian banks?

- a. \$2160
- b. \$3840
- c. \$6960
- d. \$8640
- e. NOTA

26. The Central Bank of Canada wants to decrease Money Supply by \$2400. What should the Central Bank do, assuming the proportion of deposits kept as reserves remains constant?

- a. Buy \$480 worth of Bonds
- b. Buy \$360 worth of Bonds
- c. Sell \$480 worth of Bonds
- d. Sell \$360 worth of Bonds
- e. NOTA

27. If all Canadian banks loaned out everything except Required Reserves, what is the maximum possible increase in Money Supply?

- a. \$960
- b. \$1200
- c. \$1360
- d. \$1600
- e. NOTA

28. You become the dictator of Country A, which currently has a Money Supply of \$1000. To pay government debts, you print \$500 over the next year. The economy grows by 25% over the next year. Assuming constant Money Velocity, what will the inflation rate be over the next year?

- a. 20%
- b. 25%
- c. 50%
- d. 125%
- e. NOTA

29. The government increases transfer payments without raising taxes. With no other changes, what effect does this have on the Equilibrium Real Interest Rate and Quantity of Private Loanable Funds?
- Real Interest Rate Increases; Quantity of Private Loanable Funds Decreases
 - Real Interest Rate Increases; Quantity of Private Loanable Funds Is Unaffected
 - Real Interest Rate Decreases; Quantity of Private Loanable Funds Decreases
 - Real Interest Rate Decreases; Quantity of Private Loanable Funds Is Unaffected
 - NOTA
30. In the country of Clauslandia, the price of Scharns, an input good for the production of Bluchs, increases from \$12 to \$16. As a result, the Equilibrium Point in the Bluch Market shifts from the point $Q = 210$, $P = \$30$, to the point $Q = 140$, $P = \$50$. As a result of this change in the Market for Bluchs, there is a change in the Market for Molts. In the Molt Market, the Equilibrium Quantity shifts from 20 to 40, and Equilibrium Price shifts from \$18 to \$26. What is the Cross-Price Elasticity of Demand for Molts with respect to Bluchs, and what type of goods are Bluchs and Molts?
- $-\frac{5}{3}$, Substitutes
 - $-\frac{5}{3}$, Complements
 - $\frac{8}{11}$, Substitutes
 - $\frac{4}{3}$, Substitutes
 - NOTA