

3. Assume that in the country of Zeta, the civilian noninstitutional population aged 16 and over is 1,000,000. The labor force participation rate is 70%, the unemployment rate is 9%, and the natural rate of unemployment is 5%.

(a) Calculate the number of people in Zeta that are unemployed. Show your work.

(b) Is the economy of Zeta currently experiencing a recessionary gap, an inflationary gap, or no output gap? Explain.

(c) Consumer goods and capital goods are produced in the country of Zeta. Draw a correctly labeled graph of the production possibilities curve for Zeta. Indicate a point, labeled A, that represents the current state of Zeta's economy.

(d) If some individuals who are counted as unemployed in Zeta stop looking for work, what will happen to each of the following?

- (i) The labor force participation rate. Explain.
- (ii) The unemployment rate

Begin your response to this question at the top of a new page in the separate Free Response booklet and fill in the appropriate circle at the top of each page to indicate the question number.

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END OF EXAM

2. The table below shows macroeconomic data for Country A.

Year	Nominal GDP	GDP Deflator	Population
2020	40,000	100	100
2021	88,000	200	110

(a) Calculate each of the following for Country A in year 2021. Show your work.

- (i) Real GDP
- (ii) Real GDP per capita

(b) Based solely on the data provided, has the standard of living for the average person in Country A increased, decreased, or stayed the same between 2020 and 2021 ? Explain.

(c) How would an increase in government spending on education affect economic growth in Country A? Explain.

(d) Assume that Country A produces consumer goods and capital goods. Draw a correctly labeled production possibilities curve for Country A, and show the effect of the increase in government spending on education on your graph.

Begin your response to this question at the top of a new page in the separate Free Response booklet and fill in the appropriate circle at the top of each page to indicate the question number.

2. The European Union and the United States are trading partners.
- (a) If the current account balance is zero, will an increase in United States real income result in a current account surplus, deficit, or no change? Explain.
 - (b) Draw a correctly labeled graph of the foreign exchange market for the euro. On your graph, show the effect of the increase in United States real income on the value of the euro relative to the United States dollar.
 - (c) Now assume interest rates increase in the European Union.
 - (i) What is the effect of the increase in interest rates in the European Union on the demand for the United States dollar? Explain.
 - (ii) Based on your answer to part (c)(i), what is the effect on the value of the United States dollar relative to the euro?

3. Sweden and Norway use equal quantities of resources to produce food and capital goods. The table below shows the maximum possible production of food OR capital goods for each country.

Country	Food	Capital Goods
Sweden	50	100
Norway	30	120

- (a) Draw a correctly labeled graph of the production possibilities curve for Sweden. Place food on the horizontal axis and capital goods on the vertical axis. Plot the relevant numerical values on the graph.
- (b) On your graph in part (a), indicate the following.
 - (i) A point that represents an efficient level of production, labeled E
 - (ii) A point that represents an inefficient level of production, labeled I
 - (iii) A point that represents an unattainable level of production, labeled U
- (c) Assume Sweden moves from producing 20 units of food and 60 units of capital goods to producing 30 units of food and 40 units of capital goods. What will happen to economic growth in Sweden in the future?
- (d) Which country has the comparative advantage in the production of capital goods? Explain.
- (e) Based on the table above, identify a specific number of units of capital goods that could be traded for 10 units of food and be mutually beneficial.

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END OF EXAM