

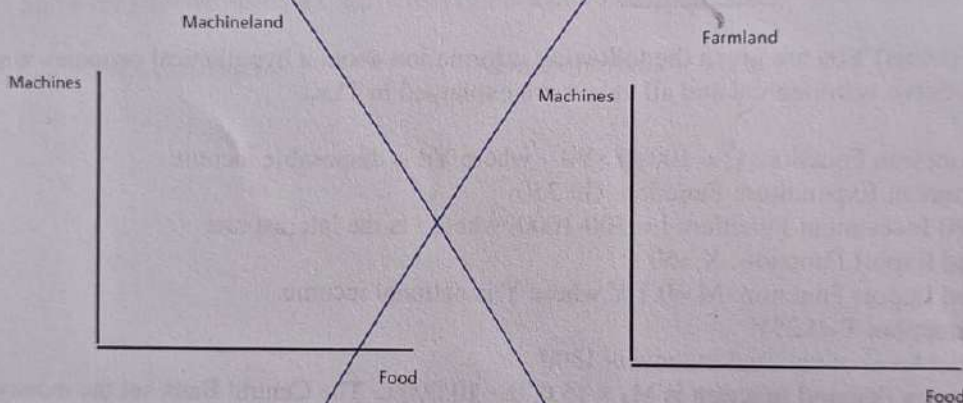
June 3, 2024

FINAL EXAMINATION
(Time Allowed: 100 minutes)

Part I (56 points)

1. (17 points) Assume Machineland and Farmland are the only two countries in the world as potential trading partners. Each country produces two goods: machines and food. If Machineland devotes all its resources to produce machines it can produce 200 machines, and if it devotes all its resources to produce food, it can produce 20 tons of food. If Farmland devotes all its resources to produce machines it can produce 20 machines, and if it devotes all its resources to produce food it can produce 200 tons of food.

a. (2) Draw the production possibility curves for Machineland and Farmland.



b. (1) Machineland produces and consumes 10 tons of food and 100 machines while Farmland produces and consumes 150 tons of food and 15 machines. Indicate those points on the production possibility curves above. Label them as A and A', respectively.

c. (2) The opportunity cost of 1 kg. of food is _____ units of machines in Machineland. The opportunity cost of 1 machine is _____ tons of food in Farmland.

d. (2) Machineland should specialize in production of _____ (machines/food). Why? Explain briefly.

e. (2) Farmland should specialize in production of _____ (machines/food). Why? Explain briefly.

f. (2) If countries **completely** specialize according to (d) and (e) above, the **total** production of machines will **increase** by _____ units and the **total** production of food will **increase** by _____ units compared to self-sufficiency.

g. (1) After trade Machineland consumes 50 tons of food and 150 machines and Farmland consumes 150 tons of food and 50 machines. Label them as T and T', respectively.

h. (5) These combinations are possible if Machineland _____ (exports/imports) _____ units of machines and Farmland _____ (exports/imports) _____ tons of food. This indicates that terms of trade is _____.

2. (27 points) You are given the following information about a hypothetical economy where SRAS curve is horizontal and all values are explained in TLs.:

Consumption Function: $C = 100 + 0.8Y_d$ where Y_d is disposable income

Government Expenditure Function: $G = 350$

Planned Investment Function: $I = 500 - 1000i$ where i is the interest rate

Desired Export Function: $X = 50$

Desired Import Function: $M = 0.1 Y$ where Y is national income.

Tax Function: $T = 0.25Y$

Potential level of national income is 1300

The money demand function is $M_d = 15.000 - 10.000 i$. The Central Bank set the money supply at 12 500.

Required reserve ratio: $r = 20\%$

Currency in circulation: $C = 2500$

Currency drain = 0

Excess reserve ratio = 0

Demand Deposits in monopoly bank: $DD = 10000$

Loans extended by the monopoly bank: $L = 8000$

Government securities (bonds) of the Central Bank = 4500

Reserves of the monopoly bank (deposits of the monopoly bank kept at the Central Bank) = 2000

a. (4) In this economy the equilibrium interest rate, level of investment and level of national income are:

$i =$

$I =$

$Y_e =$

b. (3) Draw the relevant graphs representing the state of the economy in the money market, the investment level and AE curves. Show equilibrium points in each diagram by using the values you found in (a).

c. (4) Show the balance sheets (T accounts) of the Central Bank and monopoly bank.

Central Bank

Monopoly Bank

d. (4) To close the output gap the necessary _____ (increase/decrease) in government expenditure is _____ TL.

e. (2) **Alternatively**, to close the output gap a money supply change is considered. About this policy the largest change in national income will take place the more _____ (elastic/inelastic) is the money demand function with respect to interest rate and the more _____ (elastic/inelastic) is the planned investment function with respect to interest rate.

f. (5) To close the output gap the necessary _____ (increase/decrease) in money supply is _____. (Hint: Calculate the new level of investments initially)

g. (2) To achieve the necessary change in money supply the reserve requirement ratio should be _____ and money multiplier is _____.

h. (3) Show the **final** balance sheets (T accounts) of the Central Bank and monopoly bank after the policy change.

3. (12 points) You are given domestic demand and supply information for a good in a hypothetical small economy.

Quantity demanded domestically (in 1000s)	Price	Quantity supplied domestically (in 1000s)
60	\$10	80
70	8	70
80	6	60
90	4	50

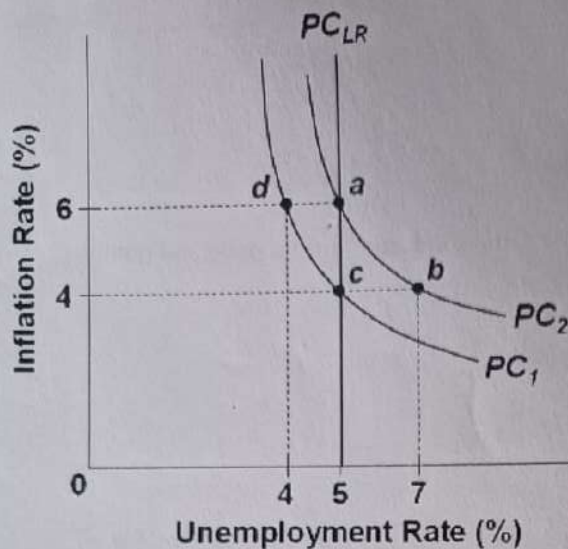
- a. (2) Roughly draw demand and supply curves and show equilibrium price and quantity.

- b. (2) The world price is \$6. Show this on the above diagram as P_w . At the world price the amount of _____ (exports/imports) is _____.

- c. (5) If the world price was \$4 and a tariff of \$2 per unit were placed on the product, the total revenues going to domestic producers would be \$ _____, to foreign producers (after-tax) \$ _____, and to the government \$ _____. The deadweight loss stemming from the tariff would be \$ _____. Show the deadweight loss on the diagram above.

- d. (3) Given a world price of \$4, what would be the difference in the total revenue received by foreign producers with a \$2 per unit tariff compared with a quota of 20,000 units? Assume that the government does not sell the quota, it just institutes it.

Part II. Multiple Choice (22 *2 =44 points)



- Refer to the diagram above. Assume that the natural rate of unemployment is 5 percent and that the economy is initially operating at point *c*, where the expected and actual rates of inflation are each 4 percent. If the actual rate of inflation unexpectedly rises from 4 percent to 6 percent, the economy will
 - move from *a* to *b* and eventually to *c*.
 - move directly from *c* to *b*.
 - remain at *a*.
 - move from *c* to *d* and eventually to *a*.
- If government spending is increased by 700 TL. and taxes are increased by 700 TL., the equilibrium level of income will
 - not change.
 - increase by 700 TL.
 - increase by 1,400 TL.
 - decrease by 700 TL.
 - increase by less than 700 TL.
- In an open economy, the equilibrium GDP is determined at the point where *S* is saving, *M* is imports, *T* is taxes, *I* is investment, *X* is exports and *G* is government purchases.
 - $S + M + T = I + X + G$.
 - the 45-degree line and the saving schedule intersect.
 - $S + X + G = I + T$.
 - $S + I + X = G + T$.
 - none of the above.
- Increases in the quantity of money can start a _____ inflation and an increase in government expenditure can start a _____ inflation.
 - demand-pull; demand-pull
 - demand-pull; cost-push
 - cost-push; cost-push
 - cost-push; demand-pull

5. During a demand-pull inflation, if the Central Bank tries to maintain a level of real GDP above potential GDP,

- A. there will be a one-time shift in the AD and the SAS curves.
- B. the AD curve will shift rightward continuously and SAS curves will shift leftward continuously.
- C. the AD curve will shift rightward continuously and the SAS curve will not shift.
- D. the SAS curve will shift leftward continuously and the AD curve will not shift.

6. Which of the following leads to a rightward shift in the short-run Phillips curve?

- I. a reduction in inflationary expectations.
 - II. an increase in the natural rate of unemployment.
 - III. an increase in the velocity of circulation.
- A. I only B. II only C. I and II D. I and III

7. In considering the distribution of the gains from trade:

- A. smaller countries usually get a larger proportion of the gains from trade.
- B. larger countries usually get a larger proportion of the gains from trade.
- C. the gains are generally split equally between small and large countries.
- D. no statement can be made about the general nature of the split.

8. If output is less than planned aggregate expenditure, there will be

- A. an unplanned increase in inventories.
- B. an unplanned decrease in inventories.
- C. no change in inventories.
- D. a planned increase in inventories.

9. Which of the following Gini coefficients represents the income distribution closest to being equal?

- A. 0.98 B. 0.10 C. 0.50 D. 0.02

10. When the United States residents acquire assets abroad, they are in essence

- A. borrowing money, and foreign debts to the United States decrease.
- B. borrowing money, and foreign debts to the United States increase.
- C. lending money, and foreign debts to the United States decrease.
- D. lending money, and foreign debts to the United States increase.

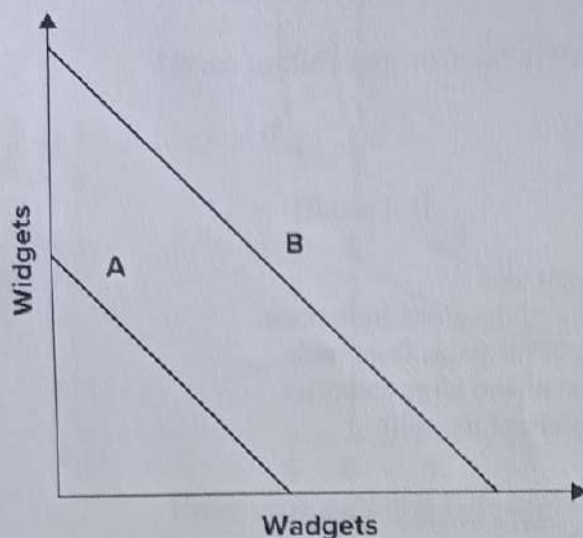
11. All of the following are arguments in support of protectionist legislation *except*:

- A. supporting infant industries.
- B. preserving domestic employment.
- C. increasing global trade.
- D. promoting national security.

12. According to the quantity theory:

- A. unemployment is everywhere and always a monetary phenomenon.
- B. inflation is everywhere and always a monetary phenomenon.
- C. the equation of exchange does not hold true.
- D. real output is everywhere and always a monetary phenomenon.

13. You are given the production possibility curves for two hypothetical economies, A and B, below.



Given these production possibility curves, for Country A and Country B, you would suggest that:

- A. Country A should specialize in widgets and Country B in wadgets.
- B. No trade should take place.
- C. Country A should specialize in wadgets and Country B in widgets.
- D. Both countries should produce an equal amount of each.

14. The supply of euros on the foreign exchange market slopes:

- A. upward because European consumers buy fewer foreign goods when the value of the euro decreases.
- B. upward because European consumers buy more foreign goods when the value of the euro decreases.
- C. downward because European consumers buy fewer foreign goods when the value of the euro decreases.
- D. downward because European consumers buy more foreign goods when the value of the euro decreases.

15. A basic rule of thumb to predict inflation is that it equals:

- A. real wage increases minus productivity growth.
- B. productivity growth plus nominal wage increases.
- C. productivity growth minus nominal wage increases.
- D. nominal wage increases minus productivity growth.

16. The paradox of thrift will not arise if:

- A. increases in saving are translated into identical increases in investment.
- B. increases in saving are translated into identical decreases in consumption.
- C. decreases in saving are translated into identical increases in investment.
- D. decreases in saving are translated into identical decreases in consumption.

17. An increase in the price level:

- A. increases the purchasing power of money, leading to lower interest rates, which increases investment.
- B. increases the purchasing power of money, leading to higher interest rates, which decreases investment.
- C. decreases the purchasing power of money, leading to lower interest rates, which increases investment.
- D. decreases the purchasing power of money, leading to higher interest rates, which decreases investment.

18. The multiplier effect exists because:

- A. production and expenditures are interdependent.
- B. when one person increases expenditures, everyone decreases expenditures.
- C. production and expenditures are independent.
- D. production lowers expenditures.

19. In Shoetown, a rancher uses free inputs and produces animal skins, which he sells to the tanner for \$400. The tanner then sells leather to the shoemaker for \$700, and the shoemaker then sells \$1200 worth of shoes. The GDP for the economy is

- A. \$800 B. \$1200 C. \$1000 D. \$2500 E. \$2300

20. You are given the following information for a hypothetical economy

	2018		2020	
Product	Quantity	Unit Price	Quantity	Unit Price
Bananas	120	1 TL	150	2 TL
Econ Lessons	30	20 TL	45	25 TL

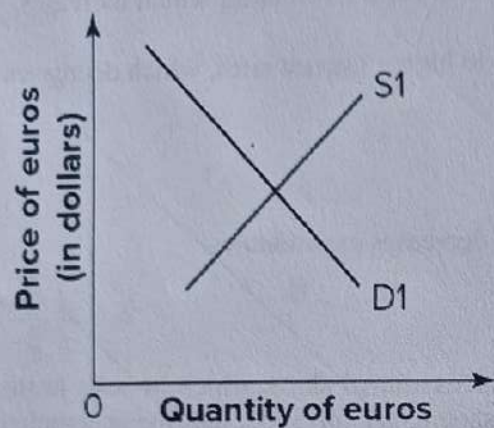
Nominal GDP for year 2018 is _____ TL. and real GDP in year 2020 using year 2018 as the base year is _____ TL.

- A. 1050; 240 B. 990; 720 C. 180; 1050 D. 720; 1050
E. 1425; 990

21. Which of the following is considered unemployed?

- A. A private sector employee resigned from his job and moved to a small town to give a break.
- B. A mortgage specialist who lost his job since the company went bankrupt and does not believe that he can find a job. Hence, he stops looking for a job.
- C. A 10-year-old kid who asks his neighbors if he can wash their car for \$5.
- D. A 40-year-old steelworker who was laid off 18 months ago and has given up to find a job.
- E. A group of computer programmers who lose their job but are currently looking for a job.

22. Refer to the graph shown. An increase in American interest rates would shift:



- A. D_1 right and S_1 left, causing an appreciation of the euro.
- B. D_1 right and S_1 right, causing a depreciation of the euro.
- C. D_1 left and S_1 left, causing an appreciation of the euro.
- D. D_1 left and S_1 right, causing a depreciation of the euro.