

Matr.-Nr. _____

Name: _____

ORIGINAL

Final Exam:
Examiner:
Term:

Economics and Management II Teil 1 BA
Principles of Economics II (5005)
Prof. Dr. Paqué, Prof. Dr. Wolff Teil 2
Summer 2002

No aids permitted except for English language dictionaries without any marking.

There are 25 different exercises on this exam. Make sure that this copy of the exam is complete and write your matriculation number and your name into the appropriate fields on top of this page. Work on all 25 questions. Do not mark more than one possible answer otherwise it is considered false. For every correct answer you obtain two points. For every false answer one point is subtracted. If no answer is marked you neither obtain nor lose a point. In order to pass this exam you need at least 25 points.

1. A good indicator for the productive activities within a country is

- a) nominal GDP.
- b) the consumer price index (CPI).
- c) real GDP.

2. If the nominal interest rate is 5% and the rate of inflation equals 2% then the real interest rate is

- a) 7%.
- b) 3%.
- c) 10%.

3. If the nominal interest rate falls then asset prices

- a) rise.
- b) remain constant.
- c) decline.

4. In the Malthusian growth model

- a) the equilibrium occurs when output per worker equals the subsistence level.
- b) the population grows as long as output per worker is smaller than the subsistence level.
- c) the population declines as long as output per worker is greater than the subsistence level.

5. According to the neoclassical growth model a country with a high saving rate has in equilibrium (steady state)

- a) a lower per capita income than
- b) a higher per capita income than
- c) the same per capita income as a country with a low saving rate.

6. If one abstracts from transactions in services, investment income and from unilateral transfers, a country that imports more goods than it exports

- a) has a positive trade balance.
- b) is called a net creditor in the world financial market.
- c) is called a net debtor in the world financial market.

7. If the price of a bundle of tradable goods is \$10 in America while €20 in Europe, then at the current exchange rate of 2\$/€ the

- a) euro is undervalued compared to its long-run value implied by PPP-theory.
- b) euro is overvalued compared to its long-run value implied by PPP-theory.
- c) value of the euro corresponds to its long-run value implied by PPP-theory.

8. According to PPP-theory, a country with a flexible exchange rate that faces an increase in its price level relative to the rest of the world will see its currency

- a) depreciating.
- b) appreciating.
- c) remaining at the politically desired level.

9. The Bretton Woods system established a

- a) system of fixed exchange rates.
- b) system of flexible exchange rates.
- c) system of fixed but adjustable exchange rates.

10. In a system of fixed exchange rates the central bank must

- a) abstain from any intervention in the foreign exchange market.
- b) buy foreign currency if there is excess supply of domestic currency.
- c) buy foreign currency if there is excess supply of foreign currency.

11. The open economy multiplier is

- a) smaller than the closed economy multiplier.
- b) greater than the closed economy multiplier.
- c) as large as the closed economy multiplier.

12. Under a fixed exchange-rate system and perfect capital mobility

- a) monetary policy is ineffective in raising domestic income.
- b) monetary policy is highly effective in raising domestic income.
- c) fiscal policy is ineffective in raising domestic income.

13. Under a system of flexible exchange rates and perfect capital mobility monetary tightening at home leads to

- a) an increase of the foreign exchange reserves of the central bank.
- b) a decrease of the foreign exchange reserves of the central bank.
- c) an appreciation of the domestic currency.

14. The difference between national saving and investment in an open economy equals

- a) total output.
- b) net exports.
- c) the government budget deficit.

15. In a small open economy at full employment and with perfect capital mobility, an increase in government expenditures

- a) reduces net exports.
- b) increases net foreign investment.
- c) raises the domestic interest rate

16. In a high-risk country (i.e., a country with high inflation, corruption and unstable political conditions)

- a) the interest rate is lower than the world interest rate.
- b) the level of investment is greater than that in a low-risk country.
- c) investors will demand a risk-premium over the world interest rate.

17. A relatively flat aggregate supply curve corresponds

- a) to the short-run behavior of the economy.
- b) to the classical approach to aggregate supply.
- c) to the long-run behavior of the economy.

18. A vertical aggregate supply curve describes

- a) a short-run model.
- b) a model with sticky prices.
- c) the classical approach to aggregate supply.

19. A person who has a job but is currently too ill to work is classified as

- a) being unemployed.
- b) being employed.
- c) being not in the labor force.

20. The unemployment rate is

- a) the number of unemployed people divided by the labor force.
- b) the labor force minus the number of employed people.
- c) the number of unemployed people relative to the number of employed people.

21. Frictional unemployment occurs

- a) when due to a recession the overall demand for labor is low.
- b) when the demand for labor in certain sectors of the economy is low.
- c) because of the incessant movement of people between regions and jobs.

22. The short-run Phillips curve shows a trade-off between

- a) inflation and money growth.
- b) inflation and total output.
- c) inflation and unemployment.

23. The long-run Phillips curve

- a) is vertical.
- b) is horizontal.
- c) slopes upward.

24. The NAIRU is that unemployment rate consistent

- a) with a declining inflation rate.
- b) with a constant inflation rate.
- c) only with a zero inflation rate.

25. In an economy with flexible wages

- a) there is no voluntary unemployment.
- b) there is no involuntary unemployment.
- c) the number of unemployed people always equals the number of employed people.



5005 Introduction to Management II (ST 2002) – Final Exam

Economics and Management II Teil 2

Final Exam

You will be able to make a maximum of 60 points. There are a few pieces of advice we can offer at this stage:

1. Use the theoretical tools and terminology you have learned in class and from the textbook.
2. Make sure there is a clear structure in your argument. (Use some time to sort your ideas before you start writing the version you want to submit.)
3. Use the time you have! If you are ready much earlier than we planned you should wonder if you forgot something.
4. Remember: people have to be able to decipher what you write.
5. Leave a margin for our comments, so we can give you a more detailed feed-back than just the number of points.

Here is the set of problems:

Please solve four (4) of the following six (6) problems (maximum of 15 points per problem):

You are welcome to use a dictionary and a calculator.

Question 1: Terms

Define the following terms. Feel free to illustrate your definitions by examples.

- a) Bench Marking
- b) Reservation Utility
- c) Informativeness Principle
- d) Hold-up Problem
- e) Revenue Center

Question 2: Agency Costs

Mike's Bagel Bar wants to hire a cleaning service to do the daily cleaning at the bagel bar. Mike's Bagel Bar's marginal benefit from the cleaning service is: $MB = 50 - 2L$. The cleaning service's marginal costs if providing the service per hour is: $MC = 20$.

- a) What is the value maximizing price of the cleaning service?
- b) What is the total surplus from the deal?
- c) Why could an agency problem occur in this case? How could it be solved? How could it change the profits of the two firms?

Question 3: Incentive Compensation

Mary's job is to assemble components. Her utility function is $U = 1 - e^{-2}$. 1 is her income for the period and e is the number of units of effort exerted. Her reservation utility is €2000. The benefits Mary's employer has from Mary's effort are: $B = €120e$. The firm offers Mary a contract that would pay her a part of her salary only if she provides a specified level of effort, e .

- a) How much would the firm need to pay Mary to get her to work for the company? Explain your answer.
- b) What is the optimal level of effort Mary should provide?
- c) What is the profit of the firm when Mary provides the optimal level of effort?

Question 4: Ownership Rights and Investment Incentives

MobilFirm manufactures cell phones and PlasTech manufactures plastic covers for cell phones. MobilFirm is the only customer of PlasTech and PlasTech is the sole supplier of MobilFirm. MobilFirm is planning to change the look of the phones by producing them in 10 different colors. The change affects both MobilFirm and PlasTech. MobilFirm could have benefits of either 30 or 50 of the new look, whereas PlasTech could incur costs of 20 or 40. The likelihood of high benefits and low costs is dependent on the effort of the managers of the two companies:

- The effort of MobilFirm's owner determines the probability of benefits of 50 (x). His costs of exerting effort are $10x^2$.
 - The effort of PlasTech's owner determines the probability of cost of 20 (y). His costs of exerting effort are $10y^2$.
- a) What is the ideal effort choice? What is the expected surplus that results from the ideal effort level?
 - b) What happens to the expected surplus when the managers cannot observe each others effort, but they share the surplus? Show your calculations.
 - c) What happens to the total surplus if one of the companies purchases the other one and the owner of the purchased company stays as a manager under the new boss?

Question 5: Vertical Integration and Outsourcing

What is meant by vertical integration and outsourcing? Discuss when firms should use long-term contracts and when vertical integration.

Question 6: Economics of Regulation

Discuss the economic rationale of government intervention. Why is there a market for government regulation and who are on the demand side and the supply side of that market?

Good Luck!

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