Macroeconomics

(11063)

Examination Winter Semester 2011/2012

Examiner:	Prof. Dr. Andreas Knabe
The following aids may be used:	Non-programmable pocket calculators; English language dictionaries without individual entries or marking.
Time:	120 minutes

This exam comprises 30 multiple-choice. In each of the problems, exactly one of the four optional answers is correct. Do not mark more than one answer to any of these questions, otherwise the solution will be considered false. For every correct answer you obtain 1 point. If no answer is marked or a wrong answer is given, you neither obtain nor lose a point.

Make sure that your answer sheet bears your matriculation number and name in the appropriate. Only answers given on the answer sheet are graded!

Good luck!

Prüfungsaufgaben

1. If the goods market of a closed economy with state activity is in its equilibrium, the following must hold:

   a) $I = S$
   b) $I = S + (G - T)$
   c) $G = T$ und $I = S$
   d) $I = S + (T - G)$

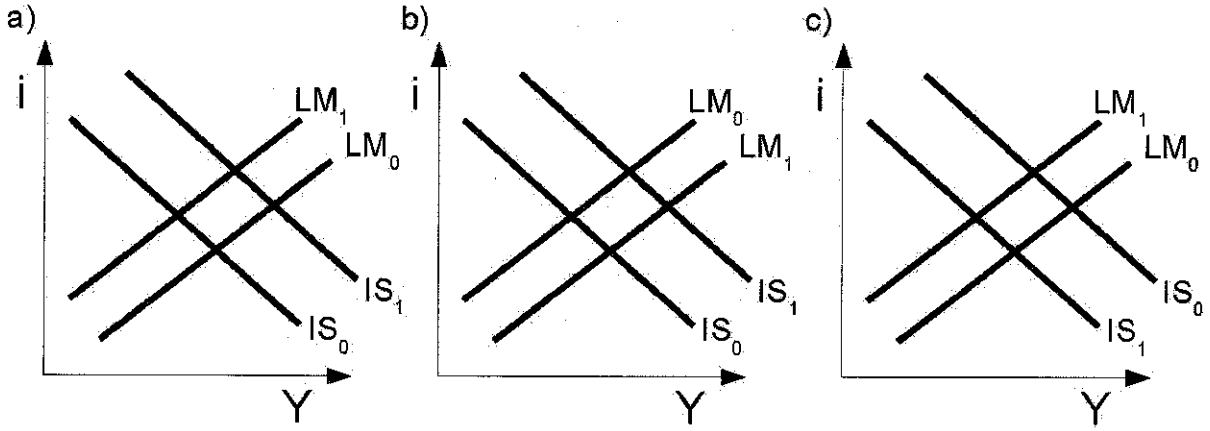
2. Consider a closed economy with a private marginal propensity to consume of 50 % and a marginal tax rate of 50 %. The central bank succeeds in keeping the interest rates relevant for saving and investment plans constant. The government increases (tax-free) lump-sum transfers by 1 billion euro. If investment plans do not depend on current changes in GDP, and the government finances its additional expenditure by increasing its debt, the horizontal rightward shift in the IS-curve amounts to

   a) 0.555 billion Euro.
   b) 0.666 billion Euro.
   c) 1.111 billion Euro.
   d) 2.222 billion Euro.

3. Assume that under the assumptions made in problem 2, the government keeps its deficit constant by cutting public investment spending. In this case, the IS-curve

   a) does not shift.
   b) shifts to the left by 2 billion euro.
   c) shifts to the left by 0.5 billion euro.
   d) shifts to the right by 0.5 billion euro.

4. Which of the following diagrams shows an expansive fiscal policy and simultaneous contractionary monetary policy in the IS-LM model? The curves IS_0 and LM_0 the initial situation, while IS_1 and LM_1 show the situation after the political intervention.



   a) diagram a)
   b) diagram b)
   c) diagram c)
   d) none of the diagrams

5. Aggregate money demand by the non-banking public is 1000 billion euro, the public holds currency and bank deposits in a proportion of 1 to 4, and the banks hold 50 % of their deposits as reserves. Then the total demand for central bank money (by banks and the public) is

   a) 300 billion euro.
   b) 400 billion euro.
   c) 500 billion euro.
   d) 600 billion euro.

6. Optimal demand for money declines with

   a) the transaction costs of withdrawals.
   b) the nominal interest rate.
   c) the nominal GDP.
   d) none of the above.

7. What happens, if the central bank raises the minimum reserve ratio θ?

   a) The money creation multiplier increases.
   b) The money creation multiplier is reduced.
   c) The monetary base or amount of central bank money respectively declines.
   d) The monetary base or amount of central bank money respectively increases.

8. A money market with commercial banks has the following properties: reserves $R = 150$, currency $CU = 450$ and deposits $D = 1200$. What is the value of money supply M1?

a) 1350
b) 1650
c) 1800
d) 1950

9. What is the value of the money creation multiplier in problem 8?

a) 1,50
b) 2,75
c) 3,00
d) 3,25

10. A point which lies below the IS-curve and below the LM-curve, indicates

a) excess demand on goods market and excess supply on financial market.
b) excess demand on goods market as well as on financial market.
c) excess supply on goods market as well as on financial market.
d) excess supply on goods market and excess demand on financial market.

11. If investement reacts only barely on changes in the interest rate,

a) the IS-curve is rather flat.
b) the LM- curve is rather flat.
c) the IS-curve is rather steep.
d) the LM-curve is rather steep.

12. Suppose that the government wants to raise investment but keep output constant. In the IS-LM model, what mix of monetary and fiscal policy will achieve this goal?

a) Cut in taxes, increase in money supply.
b) Cut in government expenditure, increase in money supply.
c) Cut in taxes without increasing the budget deficit, keeping the money supply unchanged.
d) Cut in taxes, decrease in money supply.

13. Assume standard *AS*- and *AD*-curves derived from a standard IS-LM model. In order to avoid that the increase of government spending leads to an increase in the short-run equilibrium price level, the central bank would have to

a) keep the money supply constant.
b) keep the current interest rate constant.
c) engage in a contractive open-market policy.
d) engage in an expansionary open-market policy.

14. The AD-curve is falling because of

a) the effects of nominal changes in money supply on the LM-curve.
b) the effects of fiscal policies on the IS-curve.
c) the effects of changes in the price on real money supply.
d) the effects of tax increases on the interest rate.

15. A reduction of public spending by 50 billion Euro in an AS-AD-model leads to the following in the medium run

    a) no changes in output or investment.
    b) a reduction of investment by more than 50 billion Euro.
    c) a reduction of investment by more exactly 50 billion Euro.
    d) an increase of investment by more exactly 50 billion Euro.

16. The state increases its spending, to boost the economy in the short run. Monetary policy is coordinated simultaneously to hold the interest rate constant. Which effects do these combined policy measures have in the AS-AD-model?

    a) The monetary policy leads the price level to return to its initial value in the medium run.
    b) The monetary policy mutes the price effect.
    c) In the medium run the price level rises stronger compared to a single measure.
    d) In the short run the price level rises stronger compared to a single measure.

17. Assume an economy is described by the following equations:

$$i = 40 - 0{,}02Y \qquad \text{(IS)}$$
$$i = 0{,}08Y - 0{,}05(M/P) \qquad \text{(LM)}$$
$$Y = Y_n + 10(P - P^e) \qquad \text{(AS)}$$

    Money supply is $M = 200$, natural output is $Y_n = 500$. Consider adaptive expectations $(\pi_t^e = \pi_{t-1})$! The medium run equilibrium price level is:

    a) 0,25
    b) 0,50
    c) 0,75
    d) 1,00

18. Consider the medium run equilibrium from problem 17. The central bank increases money supply to $M' = 300$. What is the value of the new price level in the new resulting medium run equilibrium?

    a) 0,5
    b) 1,0
    c) 1,5
    d) 2,0

19. Assume that in an average month, the number of people entering the labor force is 5 % of the labor force at the beginning of the month, while 2 % are leaving the labor force. The number of people losing or quitting their jobs during a month is 1 % of total employment at the beginning of the month. The number of people finding a job during a month is 40 % of those unemployed at the beginning of a month. Assume that the percentage of people with a job leaving the labor force is the same as the percentage of unemployed leaving the labor force. Moreover, every person entering the labor force during a month is at first unemployed. The natural unemployment rate (as a percentage of the labor force) is

    a) 10,00 %.
    b) 13,33 %.
    c) 16,66 %.
    d) 20,00 %.

20. Considering the Phillips-curve-dependency, $\pi_t = \pi_t^e + (\mu + z) - \alpha u$, the natural rate of unemployment takes the value:

a) $\dfrac{\alpha}{\mu + z}$

b) $\dfrac{\mu}{\alpha + z}$

c) $\pi_t^e - \pi_t$

d) $\dfrac{\mu + z}{\alpha}$

21. The gross domestic product is:

a) the sum of consumption spending, investment spending, public spending and net exports.

b) equal to the national income of the economy.

c) equal to the net domestic product of the economy minus intermediate consumption.

d) equal to the gross national product.

22. For IS- and/or LM-curves the following holds:

a) The LM-curve is ceteris paribus steeper, if the income elasticity of money demand is higher.

b) The intersection of IS- and LM-curve represents the simultaneous equilibrium of money, goods and labor market.

c) If the IS-curve moves outwards, involuntary unemployment increases.

d) At the intersection of IS- and LM-curve inflation and inflation expectations always coincide.

23. Okun's law states that

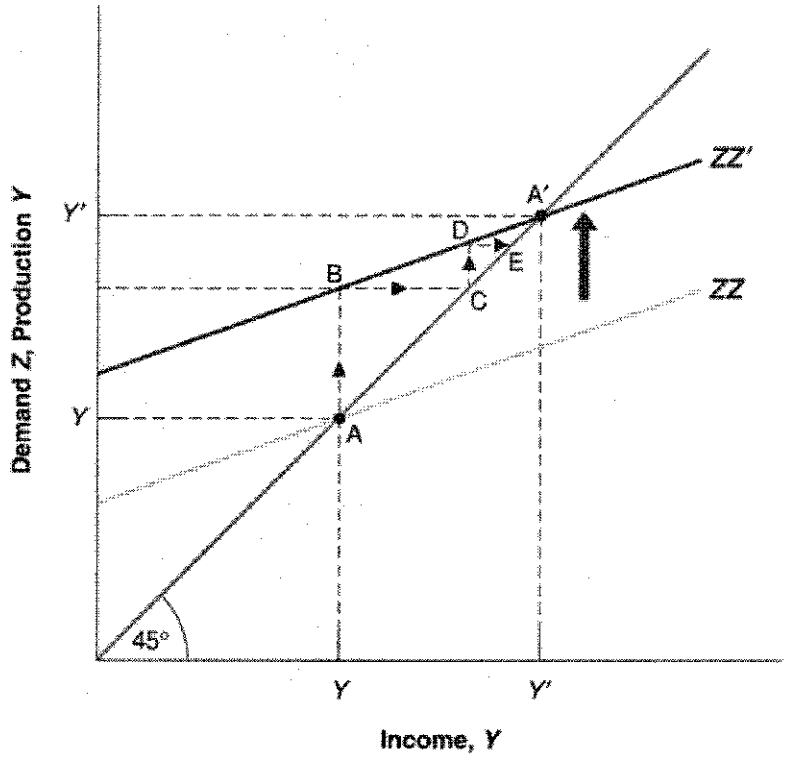
a) the fall in the unemployment rate from one period to the next is linearly related to the extent the actual growth rate of real GDP exceeds the growth rate of its natural level

b) the unemployment rate in the current period is negatively correlated with the real growth rate of GDP in the previous period.

c) the fall in the unemployment rate from one period to the next is linearly related to the extent the actual inflation rate exceeds the expected inflation rate

d) an increase in the bargaining power of labor unions increases the natural unemployment rate

24. Consider this depiction oft he goods market:



a) In point *B* overall demand exceeds overall supply.
b) Overall demand moves from *ZZ* to *ZZ'*, e.g. in response to an endogenous increase of consumption *C(Y)*.
c) In Point *C* goods supply exceeds goods demand.
d) The multiplier effect on GDP wanes along the adjustment process from *Y* to *Y**.

25. Which of the following statements concerning long run economic growth is true (independently from the question whether the economy is in steady state or not)?

a) An increase in the saving rate raises the depreciation rate of investment.
b) A one-time but permanent increase of the saving rate always leads to a permanent increase of the consumption per person.
c) If there is no population growth and no technological progress, output growth rate is always equal to zero.
d) Income per person has its highest equilibrium value for a saving rate equal to one.

26. For an economy with a production function $Y = K^{1/3} N^{2/3}$ the depreciation rate on the capital stock is 4%. The private and public households save 20% of GDP, and the population (and labor force) grow at a rate of 1% per period. The steady-state capital intensity for this economy is

a) 4.
b) 6.
c) 8.
d) 10.

27. For the economy of problem 26., the steady-state equilibrium is

a) optimal in the sense of the Golden Rule.
b) an under-accumulation equilibrium.
c) an over-accumulation equilibrium.
d) characterized by a too high saving rate.

28. In an economy with a given saving rate, real GDP is growing at a steady-state growth rate *g*. The Solow model predicts that a permanently higher total factor productivity would result in

a) a higher long-run growth rate of real GDP.
b) an only temporarily higher growth rate of real GDP.
c) an only temporarily higher real wage rate.
d) None of the above answers is correct.

29. Consider an economy with three consumption goods: bread, butter and wine. Bread cost €3 in 2010. 200 breads were consumed. The price for butter was €2 and the price for wine was €8 per unit. 500 units of butter and 30 units of wine were consumed.

In 2011 the price for bread increased to 5€, the quantity of consumption on the other hand decreased to 150 breads. A price reduction by €1 led to a consumption increase of butter by 100 units. Wine got cheaper as well, the price dropped to €6, consumption increased to 80 units.

2010 being the base year, compute the Laspeyres index for 2011.

a) 0,913
b) 0,799
c) 0,635
d) 0,472

30. Consider the values from problem 29. 2010 being the base year, compute the Paasche index for.

a) 0,913
b) 0,799
c) 0,635
d) 0,472