



## INTRODUCTION TO MACROECONOMICS

June 5<sup>th</sup> 2012

**Total number of pages:** 9

**Duration of the exam:** 2 h. (30 questions)

**Authorized material:** none (calculator non authorized).

**Instructions to answer multiple choice questions:**

- ★ The answer sheet will be distributed when we proceed to the identity check. Please leave your student card on the table in front of you to facilitate the identity check.
- ★ On the answer sheet, write down clearly and in capital letters your family name, first name and “code candidat” (= 8 digit student number without spaces)
- ★ The answers sheet must absolutely be handed in at the end of the exam. You can keep the questionnaire.
- ★ On the answers sheet, the box corresponding to the chosen answer (A to D) must be checked or filled properly with a dark blue or black pen.
- ★ If necessary, make corrections carefully. The answer must be clearly identifiable and unique. If this is not the case, it will be counted as wrong.

Exemple:

Fine

	A	B	C	D
Q1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Q3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Q4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Q5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Unacceptable

	A	B	C	D
Q16	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Q17	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q18	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Q19	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q20	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

In order not to waste your chances, answer all questions.  
There are no negative points and there is only one correct answer.

ATTENTION:

Unless otherwise specified, demand and supply curves have the usual slopes.

### Question 1

Which of the following is correct?

- (a) The government provides goods and services to society because even if the initial allocation of resources is optimal, it is never equitable.
- (b) The redistribution function of the government is entirely based on positive criteria (not normative).
- (c) When using its stabilization function, the government can sometimes aim at slowing down economic activity.
- (d) The only role of the government is to ensure internal and external security (policy and military, respectively), as well as ensuring justice by applying existing laws.

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Answer (c)

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### Question 2

Which of the following is **wrong**?

- (a) Keynesians believe that economic policies should be used to stabilize an economy.
- (b) Monetarists believe that for an economic policy to be effective, it needs to be anticipated.
- (c) According to *real business cycle economists*, government interventions lead to important economic distortions.
- (d) Keynesians believe that government intervention can help break a vicious circle started by a wave of pessimism.

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Answer (b)

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### Question 3

In a **two country world**, where the two countries trade with each other :

Country A		Country B	
Consumption	200	Capital Depreciation	30
Gross Investment	40	Subsidies	30
Government Expenditure	50	Indirect Taxes	10
National Income	300	National Income	150
		GDP at factor prices	200
		Exports	30
		Imports	60

We also know that in country A Net Factor Income Abroad is equal to Indirect Taxes minus Subsidies. Which of the following is correct ?

- (a) In country A Capital Depreciation equals 20. In country B GDP at market prices equals 220.
- (b) In country A Capital Depreciation equals Net Factor Income Abroad. In country B GNP at factor prices equals GDP at market prices.
- (c) In country A GNP at market prices equals 340. In country B GNP at factor prices equals National Income.
- (d) None of the above is correct.

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**Answer (b)**

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### Question 4

Real GDP fell by 2% between 2010 and 2011. The GDP deflator increased from 200 to 204 during the same period. We can then conclude that :

- (a) Nominal GDP increased by around 6% between 2010 and 2011.
- (b) Nominal GDP increased by around 4% between 2010 and 2011.
- (c) Nominal GDP increased by around 2% between 2010 and 2011.
- (d) Nominal GDP was unchanged between 2010 and 2011.

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**Answer (d)**

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### Question 5

The following table provides partial 2011 price indices for four aggregates (with base = 100 in 2010) as well as the shares spent on each item by different types of consumers in 2010. Which of the following is correct? (CPI = Consumer Price Index)

Items	Index 2011	Shares by item	
		Students	Retirees
Housing	130	0.5	0.3
Food	100	0.3	0.3
Transport	120	0.1	0.1
Others	90	0.1	0.3

- (a) The CPI equals 440 in 2011.
- (b) Students' CPI equals 110 in 2011.
- (c) Students were affected by a stronger level of inflation than retirees between 2010 and 2011.
- (d) None of the above is correct.

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Answer (c)

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### Question 6

One of the main problems with the Consumer Price Index (CPI) is that :

- (a) Intertemporal comparisons are unreliable as the CPI is based on a representative consumption basket that changes every year.
- (b) It is systematically higher than the GDP deflator
- (c) It underestimates increases in the cost of living as it does not take into account changes in the composition of society.
- (d) It overestimates increases in the cost of living as it does not take into account the substitutability between consumption goods.

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Answer (d)

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### Question 7

Country A is rich and country B is poor. What can we say based on the theoretical predictions of Solow's growth model?

- (a) Thanks to development aid, country B will experience faster growth in GDP per capita than country A. Thus, in the long-run both countries will have identical levels of GDP per capita.
- (b) Due to the decreasing productivity of physical and human capital, GDP per capita growth in country A (which has already accumulated a lot of capital) is weaker than in country B. Thus, everything else equal, growth rates will be identical in the long-run.
- (c) Due to the increasing productivity of capital, GDP per capita growth in country B increases as it accumulates capital, resulting in a level of GDP per capita above the level of country A.
- (d) Country B will not be able to catch up with country A. Its growth rate will always be smaller than the growth rate of country A.



Answer (b)

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### Question 8

A government that wants to reduce frictional unemployment should :

- (a) increase the efficiency of government-run employment agencies.
  - (b) lower the minimum wage.
  - (c) get rid of labor unions from wage negotiations.
  - (d) increase government spending.
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Answer (a)

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### Question 9

Population is 250 million. Employed workers are 150 million. What is the unemployment rate ?

- (a) 10%.
  - (b) 40%.
  - (c) 60%.
  - (d) It is not possible to answer the question with the information that is available.
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Answer (d)

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### Question 10

Let us assume a closed economy that does not trade with the rest of the world. GDP is  $Y = 8000$  and private consumption is given by the following function :  $C = 1000 + 0.5 (Y-T) - 300 r$ , where  $T$  are taxes and  $r$  is the interest rate in %. Investment depends negatively on the interest rate and is given by the following function :  $I = 3000 - 200 r$ . The government budget is balanced, and government expenditure equals 2000. The interest rate, private savings ( $S_p$ ), and public savings ( $S_g$ ) are given by :

- (a)  $r = 2\%$ ,  $S_p = 2600$ ,  $S_g = 0$ .
  - (b)  $r = 2\%$ ,  $S_p = 2600$ ,  $S_g = 2600$ .
  - (c)  $r = 4\%$ ,  $S_p = 2800$ ,  $S_g = 0$ .
  - (d)  $r = 4\%$ ,  $S_p = 0$ ,  $S_g = 2000$ .
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Answer (a)

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### Question 11

Which of the following is not compatible with the presence of financial bubbles :

- (a) Financial markets are inefficient.
  - (b) Investors decisions are based on observed prices.
  - (c) Investors are irrational.
  - (d) Asset prices reflect firms' fundamentals.
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Answer (d)

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### Question 12

Reserve requirements,  $r$ , are equal to 50% and the share of liquidity that household decide to keep in their pockets,  $c$ , is around 50%. Which of the following is correct? ( $rc=0$  by assumption)

- (a) Money supply ( $M_1$ ) is equal to the monetary base ( $M_0$ ).
  - (b) The money multiplier equals 10.
  - (c) The monetary base corresponds to 50% of the money supply.
  - (d) Commercial banks are creating half of the money supply.
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Answer (a)

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### Question 13

According to the quantitative theory of money and assuming that the velocity of money is constant, we can assert that :

- (a) When the Central Bank doubles money supply, prices double if there is no real growth.
  - (b) If money supply increases by 3%, nominal GDP falls by 3%.
  - (c) If money supply increases by 2%, real income necessarily increases by 2%.
  - (d) None of the above is correct.
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Answer (a)

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### Question 14

Regarding seigniorage (printing money to finance a budget deficit), which of the following is **wrong**?

- (a) It has the same impact as a tax levied on all citizens.
  - (b) It allows the government to finance part of its deficit.
  - (c) It is undertaken by the government and it results in inflation.
  - (d) When inflation is perfectly anticipated, it created distortions between private borrowers and private savers.
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Answer (d)

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### Question 15

According the Purchasing Power Parity (PPP) model of exchange rates, if prices in Switzerland increase by 2%, while they increase by 5% in the euro zone, we can expect :

- (a) a 7% depreciation of the CHF relatively to the Euro
  - (b) a 7% appreciation of the CHF relatively to the Euro
  - (c) a 3% depreciation of the CHF relatively to the Euro
  - (d) a 3% appreciation of the CHF relatively to the Euro
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Answer (d)

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### Question 16

Which of the following **cannot** be the counterpart in the balance of payments of Swiss exports of Rivella to the United States?

- (a) A cheque by an American distribution company to Rivella headquarters in Switzerland.
  - (b) A foreign direct investment by an American company in Switzerland.
  - (c) The payment in US dollars to Rivella.
  - (d) Imports of Coca Cola by a distributor in Switzerland.
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Answer (b)

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### Question 17

What is the impact on net exports and the real exchange rate in the domestic economy of an increase in rest-of-the world interest rates?

- (a) In the domestic economy net exports fall and the domestic currency appreciates.
  - (b) In the domestic economy net exports increase and the domestic currency appreciates.
  - (c) In the domestic economy net exports fall and the domestic currency depreciates.
  - (d) In the domestic economy net exports increase and the domestic currency depreciates.
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Answer (d)

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### Question 18

Which of the following is consistent with an appreciation of the Swiss Franc?

- (a) An increase in the international demand for watches made in Switzerland.
  - (b) An increase in the Swiss demand for oranges produced in Spain and Italy.
  - (c) An increase in net capital outflows from Switzerland to the United States.
  - (d) A reduction in the government deficit in Switzerland.
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Answer (a)

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### Question 19

An increase in net capital outflows in country A has the following consequences :

- (a) A fall in the demand for loanable funds in country A.
  - (b) A fall in the interest rate in country A.
  - (c) An appreciation of country A's currency and a decline of its trade surplus.
  - (d) None of the above is correct.
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Answer (d)

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### Question 20

A lobbying campaign results in an increase in the consumption of domestically produced goods and services. Using the IS-LM model, what would be its impact on the interest rate and real income of a small open economy.

- (a) The interest rate falls and real income increases.
- (b) The interest rate falls and real income decreases.
- (c) The interest rate rises and real income increases.
- (d) The interest rate rises and real income decreases.

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Answer (c)

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### Question 21

According to the IS-LM model, which of the following is correct ?

- (a) An increase in government spending causes a shift of the IS curve to the right, while an increase in money supply causes a shift of the LM curve to the left.
- (b) An increase in government spending accompanied by a fall in exports always causes a shift of the IS curve to the right.
- (c) A decrease in government spending accompanied by an increase in money supply always causes a fall in the interest rate.
- (d) A fall in exports accompanied by a fall in money supply can cause an increase or decrease of real income, depending on the level of government spending.

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Answer (c)

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### Question 22

According to the theory of liquidity preferences, which of the following is correct ?

- (a) An increase in real income is not consistent with an increase in the interest rate.
- (b) A change in the level of prices would have no impact on the interest rate.
- (c) The impact of a change in real income on the demand for liquidity explains the positive slope of the LM curve.
- (d) An increase in money supply will lead to a fall in the demand for liquidity in equilibrium.

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Answer (c)

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### Question 23

According to the short-run model of aggregate demand and supply, what is the impact on inflation and unemployment of an increase in net exports ?

- (a) Inflation and unemployment increase.
- (b) Inflation and unemployment decrease.
- (c) Inflation increases and unemployment decreases.
- (d) Inflation decreases and unemployment increases.



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Answer (c)

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### Question 24

According to the aggregate demand and supply model, what would happen if capital is permanently destroyed by war ?

- (a) In the short-run prices increase, but we cannot say with certainty what happens to real income.
- (b) Prices increase in the short and long-run, but the price increase in the short-run is larger than in the long-run.
- (c) In the long-run prices increase and real income falls.
- (d) Real income falls, but only in the short-run.

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Answer (c)

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### Question 25

According to the aggregate demand and supply model, which of the following is correct ?

- (a) If households become pessimistic regarding future economic conditions and decide to consume less, real income will fall in the long-run.
- (b) When prices are above expected prices, aggregate supply in the short-run is above the level of aggregate supply in the long-run.
- (c) The positive slope of the long-run aggregate supply curve can be explained by the theory of rigid prices.
- (d) Technological progress will help shift the long-run aggregate supply curve, but it will not shift the short-run aggregate supply curve.

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Answer (b)

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### Question 26

With an additional Swiss Franc, the representative individual consumes 0.80 cents and saves 0.20 cents. Which of the following is **wrong** ?

- (a) The marginal propensity to consume is 0.80 and the keynesian multiplier of government expenditure in a closed economy equals 5.
- (b) If the marginal propensity to import is 0.30, the keynesian multiplier of government expenditure equals 2.
- (c) In a closed economy if government expenditure increases by CHF 10000, income increases by CHF 80000.
- (d) If the marginal propensity to import equals 0.30 and government expenditure increases by CHF 10000, income increases by CHF 20000.

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Answer (c)

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### Question 27

In the Keynesian model, which of the following is correct ?

- (a) The demand for loanable funds will increase following an increase in government expenditure and this will lead to an increase in the interest rate.
- (b) The final impact on real GDP of an increase in government expenditure is larger than the initial increase in government expenditure if the multiplier effect is larger than the crowding out effect.
- (c) The crowding-out effect amplifies the impact on aggregate demand of an increase in government expenditure.
- (d) The smaller is the marginal propensity to consume, the larger the keynesian multiplier of government expenditure.

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Answer (b)

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### Question 28

According to the short-run Phillips curve, which of the following is correct ?

- (a) An expansionary monetary policy will increase unemployment and will shift the Phillips curve upwards.
- (b) A restrictive monetary policy will increase inflation and reduce unemployment.
- (c) An expansionary monetary policy will increase inflation and unemployment.
- (d) A restrictive monetary policy will reduce inflation and increase unemployment.

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Answer (d)

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### Question 29

The observed and expected inflation rate are two determinants of unemployment. The natural rate of unemployment (or the long-run rate of unemployment) is equal to 4%. Which of the following is correct ?

- (a) If expected inflation is above observed inflation the unemployment rate is above 4%.
- (b) If expected inflation is above observed inflation the unemployment rate is below 4%.
- (c) If expected inflation is below observed inflation there is no unemployment.
- (d) If expected inflation is below observed inflation the unemployment rate is equal to 4%.

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Answer (a)

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### Question 30

Why do the policies of United States' Central Bank (the Fed) fail during the 2008 crisis ?

- (a) The Fed's intervention was successful in reducing interest rates, but consumption did not react to the fall in interest rates.
- (b) The Fed's intervention generated inflation, which reduced investment, and led to a fall in aggregate demand.
- (c) The Fed's intervention generated inflation, but unemployment increased.
- (d) The Fed's intervention did not manage to reduce interest rates because money demand was perfectly elastic.

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Answer (d)

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