

1. Knowing the GDP deflator from 2013 and nominal GDP from 2013, it is possible to calculate

- (a) the inflation rate of 2013.
- (b) the real interest rate of 2013.
- (c) real GDP of 2013.
- (d) None of the above

2. Define the government budget as government expenditure minus taxes plus transfers. Then one of the fundamental macroeconomic identities holds that

- (a) savings equal investment minus the government budget minus net exports.
- (b) investment equals savings plus the government budget plus net exports.
- (c) savings equal investment plus the government budget plus net exports.
- (d) None of the above

3. According to the Phillips curve,

- (a) a rise in the inflation rate reduces the interest rate.
- (b) a rise in the unemployment rate reduces the exchange rate.
- (c) a contraction in real GDP causes an increase in the GDP deflator.
- (d) None of the above

4. According to the aggregate supply and aggregate demand model, a contractionary monetary policy causes

- (a) an appreciation of the dollar against the euro and a fall in the interest rate.
- (b) a fall in the inflation rate and an increase in GDP.
- (c) the transformation of a supply-side policy into a fiscal policy and vice versa.
- (d) None of the above

5. The interest rate is likely to diminish when

- (a) the central bank increases the amount of reserves that banks must deposit in the central bank.
- (b) the government substantially increases the issuance of government bonds and T-bills.
- (c) families reduce their liquidity ratio.
- (d) None of the above

6. What sentence is not true?

- (a) The currency market model can be used to find the effect on the exchange rate of a fall in the domestic inflation rate.
- (b) The liquidity market model can be used to find the effect on the interest rate of a fall in the domestic inflation rate.
- (c) The aggregate supply and aggregate demand model cannot be used to find the effect on the domestic inflation rate of a rise in the real exchange rate.
- (d) The aggregate supply and aggregate demand model can be used to find the effect on the GDP of an expansionary monetary policy.

7. According to the aggregate supply and demand model, what could offset the negative impact on GDP of a recession?

- (a) A revaluation, under a fixed exchange rate regime.
- (b) A contractionary supply-side policy.
- (c) An expansionary monetary policy.
- (d) None of the above

8. A fall in the interest rate is not to be expected if

- (a) the central bank drops to zero the amount of reserves banks must hold at the central bank.
- (b) the government issues financial assets to finance a rise in the government budget deficit.
- (c) households increase their purchases of financial assets.
- (d) None of the above

9. The purchasing power parity exchange rate

- (a) is a nominal exchange rate.
- (b) is a real exchange rate.
- (c) is the inflation rate that preserves purchasing power.
- (d) None of the above

10. Which association between tool and type of policy is not correct?

- (a) Transfers / fiscal policy
- (b) Open market operation / monetary policy
- (c) Government subsidies to cover the expenses firms incurred in activities of research, development, and innovation / supply-side policy
- (d) None of the above

11. According to the Fisher equation,

- (a) the nominal exchange rate is the real exchange rate plus the inflation rate.
- (b) the unemployment rate is inversely related to the inflation rate.
- (c) by subtracting the inflation rate from the nominal interest rate the real interest rate is obtained.
- (d) None of the above

12. An expansionary monetary policy combined with a contractionary fiscal policy

- (a) for sure makes GDP bigger.
- (b) maybe reduces GDP.
- (c) with all certainty leaves the inflation rate unchanged.
- (d) None of the above

13. In which case the variable associated with the model is not a variable directly determined by the model?

- (a) Exchange rate and currency market model
- (b) Inflation rate and liquidity market model
- (c) GDP and aggregate supply and aggregate demand model
- (d) None of the above

14. In which case it is foreseeable (or likely) that an increase in the first variable will cause a fall in the second variable?

- (a) GDP and unemployment rate
- (b) Aggregate demand and inflation rate
- (c) Inflation rate and interest rate
- (d) None of the above

15. In which case the two events do not modify the aggregate demand function in the same direction?

- (a) Both the domestic interest rate and the exchange rate go up.
- (b) The number of consumers increases and the government decreases a raise in the taxes consumers must pay.
- (c) GDP of the rest of the world grows and the inflation rate of the rest of the world increases.
- (d) None of the above

16. A slumping economy is characterized by

- (a) a fall in the unemployment rate down to negative values.
- (b) a contraction in the level of general economic activity (or a fall in real GDP).
- (c) a hyperinflation followed by an inflationary deflation.
- (d) None of the above

17. The inflation rate went up and the interest rate went down. What cannot explain that both events occur simultaneously?

- (a) An expansionary monetary policy has been conducted and a contractionary fiscal policy has been executed.
- (b) 50% of all firms and 50% of all banks close down.
- (c) The central bank carries out a massive purchase of financial assets and the government cuts spending.
- (d) None of the above

No answer: no penalty · Wrong answer:  $-1/3$  of the value of a correct answer · Weight: 34%

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

**AN EXCESSIVE AMOUNT OF SPELLING OR GRAMMATICAL MISTAKES ( $\geq 10$ ) WILL BE PENALIZED**

1. There are two economies, A and B. The government of economy B implements the following economic policy measure.

• **Measure M.** The income tax rate is halved (reduced to one half of the previous value).

(i) [1,5%] What is the likely, short-run effect of **Measure M** on the budget of the government of economy B? Explain your answer.

(ii) [1,5%] What kind of policy (supply-side, demand-side...) is **Measure M**? Is it an expansionary or a contractionary policy? Explain your answers.

(iii) [5%] What is the effect of **Measure M** on the macroeconomic equilibrium of economy B? Explain, and represent graphically, your answer.



(iv) [5%] How is the the macroeconomic equilibrium of economy A affected by the change in the macroeconomic equilibrium of economy B? Explain, and represent graphically, your answer.

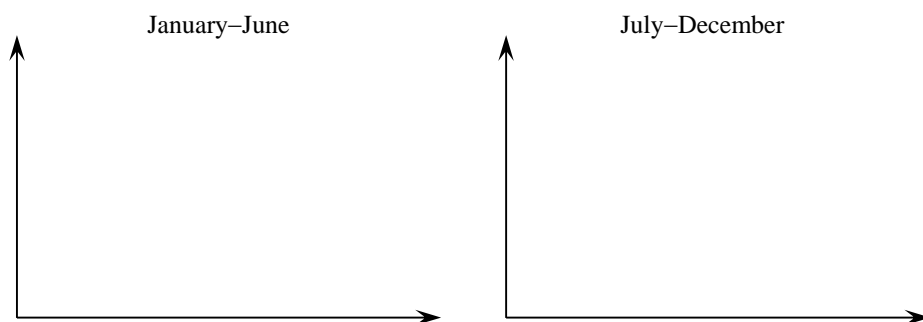


2. [6%] A government announces a debt default: interest payments corresponding to the government's public debt will not be honoured for the next ten years. Explain and analyze graphically the effect of this announcement on the domestic interest rate.



3. There are two economies, A and B. The euro is the currency in A. The dollar is the currency in B. Economy A is a tourist destination from tourists coming from B. The tourist season in economy A covers the period from January to June. No tourist from B visits A between July and December.

(i) [7%] Taking into account only the tourist activity, analyze graphically what happens with the exchange rate between the euro and the dollar each semester (which currency appreciates between January and June, and which one between July and December).



(ii) [7%] What intervention in the currency market must be carried out every semester by the central bank of economy A to keep the exchange rate constant during the whole year?

4. [2%] What is a contractionary open market operation?

5. [3%] Point out something that a contractionary fiscal policy and an expansionary monetary policy have in common, and something that differentiates them.

6. [3%] Select a variable that grows when the inflation rate goes up and another one that falls when the inflation rate increases. Justify your answers.

7. [2%] What is the expansionary phase of the business cycle?

8. [3%] Identify an event that causes a rise in the interest rate. Justify your answer.

9. [3%] Identify an event that causes a fall in the exchange rate. Justify your answer.

10. [4%] Economies A and B have the same real interest rate. The inflation rate in A is five. The inflation rate in B doubles the inflation rate in A. Using the Fisher equation, find the difference between the nominal interest rates of the two economies, indicating the economy with the higher nominal interest rate.

11. [4%] The velocity of circulation of money remains constant. Real GDP has gone up by 5%. The money stock has fallen by 5%. What is the approximate value of the inflation rate? Justify your answer.

12. [6%] With  $M1 = 1200$  and  $M0 = 300$ , find the reserve ratio if the reserve ratio is half the liquidity ratio.

13. [5%] (i) Calculate the real exchange rate and the purchasing power parity exchange rate (and indicate the corresponding units) if the domestic price level is 100, the foreign price level is 200, and the nominal exchange rate is  $4 \frac{\text{foreign currency units}}{\text{domestic currency units}}$ . (ii) [2%] Is the domestic currency overvalued or undervalued with respect to its purchasing power parity value? Justify your answer.

14. [6%] Explain briefly how the money multiplier process and the money multiplier itself are affected by the banks' voluntary decision to increase the reserve ratio.