1. Which sentence about the quantity equation is not false?
(a) It is a particular case of Goodhart's law.
(b) It refers to nominal GDP.
(c) It is the inverse of Okun's law.
(d) It is the sum of the money multiplier and the expenditure multiplier.

2. The crowding-out effect is a negative consequence of
(a) the existence of lags in the implementation of Taylor's rule when the Phillips curve becomes a temporary inconsistent policy.
(b) the existence of a monopsony in the labour market.
(c) a fiscal policy financed by issuing government bonds or T-bills.
(d) None of the above

3. Which proposition is not true?
(a) Andorra is not a eurozone member but Estonia, Latvia, and Eslovenia all are.
(b) A leading indicator of the business cycle is not the same thing as a countercyclical macroeconomic variable.
(c) A deflationary process reduces the default risk of loans because deflation lowers the real value of monetary debts.
(d) In the AS-AD model, shifts to the right of both the AS and the AD functions would represent an economy in the expansionary phase of the business cycle.

4. In which expression the unemployment rate and the inflation rate are both absent?
(a) In the expression that defines the GDP deflator
(b) In the Fisher equation
(c) In an expression that defines a Phillips curve
(d) In the equation that expresses the relative purchasing power parity

5. Which one would not be an explanation for the existence of involuntary unemployment?
(a) A slow adjustment of the real wage
(b) An insufficient aggregate demand (or the businessmen's belief that aggregate demand is insufficient)
(c) A decrease of the Swan diagram when there are no arbitrage opportunities and the central bank conducts a contractionary fiscal policy to prevent a real depreciation of the exchange rate.
(d) That most of the workers are represented by a trade union with power to bargain over wages with businessmen.

6. According to the equation establishing the factors that affect the change in the debt-to-GDP ratio, what tends to rise the debt-to-GDP ratio?
(a) A fall in the real interest rate
(b) An increase in the GDP rate of growth
(c) A reduction in the primary debt-to-GDP ratio
(d) None of the above

7. Given the fundamental macroeconomic identities, it is imposible that
(a) net exports are zero.
(b) the government budget deficit is zero.
(c) net private savings (the difference between private savings and investment) are zero.
(d) None of the above

8. A real depreciation means that a fall has occurred in
(a) the real interest rate.
(b) the velocity of circulation of money or in real GDP.
(c) the real exchange rate.
(d) the unemployment rate or the interest parity.

9. The Executive Board of the European Central Bank
(a) dictates the conditions of commercial arbitrage.
(b) makes use of the tax rate as a monetary policy tool in such a way that the Ricardian equivalence is satisfied.
(c) declares when the Laffer curve is valid and when the shadow banking system can lower the reserve ratio.
(d) None of the above

10. What is a fiscal policy tool?
(a) The tax rate
(b) The unemployment rate
(c) The inflation rate
(d) The reserve ratio

11. (1) Mario Draghi is a member of the eurozone that is not a member of the European Union. (2) Real GDP is the amount of welfare in a country. (3) The Fisher effect says that the nominal interest rate cannot be equal to the real interest rate. (4) Real GDP is the maximum amount of production that a country has. (5) Financial depth is when the banks get involved in the markets. (6) The impossible trinity holds that a central bank cannot have, at the same time, a floating exchange rate, a monetary policy, and set the interest rate.
(a) Only three sentences are false.
(b) At least four sentences are false.
(c) Some sentence is not false.
(d) Only one sentence is false.

12. The euro depreciates with respect to the dollar but appreciates against the Bolivian boliviano (BOB) if
(a) the Central Bank of Bolivia purchases bolivianos in exhange for euros and the Federal Reserve purchases dollars in exchange for euros.
(b) the Central Bank of Bolivia purchases bolivianos in exhange for dollars and the Federal Reserve purchases dollars in exchange for bolivianos.
(c) the European Central Bank purchases dollars in exchange for euros and the Central Bank of Bolivia purchases euros in exchange for bolivianos.
(d) the European Central Bank purchases euros in exchange for dollars and, at the same time, purchases bolivianos in exchange for euros.

13. According to the liquidity market model, what could not explain, in principle, a fall in the interest rate?
(a) An expansionary open market operation
(b) A reduction in the reserve ratio
(c) A massive selling of financial assets
(d) Foreign banks enter the domestic banking system

14. What shifts the AS function and the AD function in opposite directions, at least initially and in general?
(a) An expansionary fiscal policy and an increase in the number of firms
(b) A contractionary monetary policy and an expansionary fiscal policy
(c) A supply-side policy and a rise in the financial wealth caused by a stock market boom
(d) A rise in energy prices orderd by the government and a depreciation of the domestic currency.

No answer: no penalty · Wrong answer: −1/3 of the value of a correct answer · Weight: 35%

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

DNI number _____ Surnames_____ Name _____

AN EXCESSIVE AMOUNT OF SPELLING OR GRAMMATICAL MISTAKES (≥ 10) WILL BE PENALIZED

1. [1.5%] Indicate some feature that real GDP per capita and nominal GDP have in common and another one that differentiates them.

2. [1%] Choose two macroeconomic variables that cannot take negative values.

3. [1.5%] Write down three concepts whose definition makes use of some price index.

4. [2%] Explain what a contractionary open market operation is.

5. [1.5%] State some feature that deflation and disinflation have in common and another one that differentiates them.

6. [2%] Explain what a financial asset is.

7. [2%] Find a variable that, in general, goes up when the nominal interest rate increases. Explain why the correlation occurs.

8. [2%] Find a variable that, in general, goes up when real GDP increases. Explain why the correlation occurs.

9. [2%] Find a variable that, in general, goes up when the inflation rate increases. Explain why the correlation occurs.

10. [2%] Identify three eurozone members whose country name does not contain the letter "a".

11. [1.5%] Name the variable involved in the money multiplier process.

12. [1.5%] Name the variables involved in the expenditure multiplier process.

13. [2.5%] According to Taylor's rule, what happens with the real interest rate if the inflation rate is higher than the inflation rate that the central bank aims to achieve? Explain your answer.

14. [8%] On April 4, 2014, a new investment law was enacted in Bolivia: the *Ley de Promoción de Inversiones*. The goal of this law is to set the legal and institutional framework to promote investment in Bolivia and attract foreign capital in order to foster economic growth, stimulate the social and economic development of the country, and create jobs. Analyze in the aggregate supply and aggregate demand model the effect on the macroeconomic equilibrium of the success in the application of the law and explain your graphical analysis.

(ii) [8%] Answer the same question if investors believe that the law will be ineffective because the government is not going to respect the legal framework set by the law. What limitation of the efectiveness of economic policy could justify the investors' belief?

15. [2%] Find the real exchange rate if the nominal exchange rate coincides with the purchasing power parity exchange rate, which is equal to 2 \$/€, and the eurozone price level is $P = 100$.

16. [2%] Using the version of the quantity equation expressed in rates of change, calculate the inflation rate if the velocity of circulation of money remains constant, real GDP increases by 2%, and the money stock is reduced by 3%.

17. [2%] Compute the approximate value of the real GDP growth rate if nominal GDP falls a 2% and the GDP deflator inflation rate drops a 2%.

18. [4%] With M1 = 1000 and M0 = 500, find the reserve ratio if the reserve ratio equals the liquidity ratio.

19. [3%] With the help of the fundamental macroeconomic identities, find net exports if the government budget (spending minus revenue) is equal to net exports, savings are three times investment, and investment is 10.

20. The lion share of bank diposits in Bolivia (more than 80%) is held in US dollars and not in the domestic currency, the boliviano. To change this situation, the government has taxed dollarized bank accounts (boliviano accounts are exempt from the tax). (i) [8%] What is the likely impact of the tax on the exchange rate dollar/boliviano? Justify your answer using the currency market model. [Hint: ask yourself if it is justified to withdraw dollars from the dollarized accounts, purchase bolivianos with the dollars, and deposit the bolivianos at Bolivian banks.] (ii) [8%] What is the likely impact of the tax on the domestic interest rate? Justify your answer using the liquidity market model. [Remember the money multiplier process and what banks do with new deposits.]

21. [2%] Assuming the validity of the equation linking the price of T-bills and the interest rate of the economy, calculate the economy's discount factor if the price of T-bills, when issued, is 500 and their face value is 1000.