NATIONAL UNIVERSITY OF LESOTHO

B.A. EXAMINATIONS

EC4303: MONETARY ECONOMICS I

January, 2024	**100 Marks**	**Time: 3 Hours**

***Instructions**:*

1. Show all necessary workings and make clear drawings of graphs.
2. Answer all questions in section A and any two questions in section B.

SECTION A

Question 1

a) Discuss briefly the monetary policy transmission mechanisms and what are their importance?

[10 marks]

b) In a concise term, discuss the role played by financial innovation in explaining the predictability of velocity and stability of money demand. [5 marks]

c) Given the following information regarding the Central Bank of Algeria (CBA)'s model of multiple deposit creation for monetary policy decision-making: **Table 1**

Currency in Circulation (*C*) = DZD 2,200 Million	Time/Savings Deposits (*T*) = DZD 3,500 Million
Demand Deposits (*D*) = DZD 10,000 Million	Money Market Funds (*MMF*) = DZD 500 Million
Excess Reserves (*ER*) = DZD 600 Million	-

i. Determine the level of broad money supply, through the money multiplier approach, that CBA needs to target given that the monetary base is DZD 3, 150 Million. [5 marks]

ii. What type and amount of open market operation (OMO) would the CBA take to increase broad money by one fifth? [5 marks]

Question 2

a) Why is central bank independence important in keeping inflation at bay? [5 marks]

b) Discuss briefly the four possible effects of an increase in the money supply on interest rate.

[8 marks]

c) Base on the theory of Asset Demand, clearly indicate the effect of increases in the Variables on the Change in quantity demanded in the table below: [12 marks]

Table 2:

Response of the Quantity of an Asset to Changes in Wealth, Expected Returns, Risk, and Liquidity.		
Variable	**Change in Variable**	**Change in Quantity demanded**
Wealth		
Expected Returns Relative to other assets		
Risk Relative to other assets		
Liquidity Relative to other assets		

SECTION B

Question 3

a) What is the difference between quantitative easing policy and conventional monetary policy?

[7 marks]

b) Foreign exchange rates can also confuse central bankers and their policies. Specifically, increasing (decreasing) interest rates will, ceteris paribus, cause a currency to appreciate (depreciate) in world currency markets. Why is that important? Discuss. [8 marks]

c) Given the following objective function of the central bank, the economy's supply constraint and the constraint from the demand side, respectively:

$$U = \lambda(y - y^f) - \frac{1}{2}\pi^2 , \qquad \lambda > 0;$$

$$y = y^f + \alpha(\pi - \pi^e) + \mu , \ \ \alpha > 0;$$

$$\pi = \Delta y^d + \varepsilon$$

i. Explain the significance of the parameters α and λ. [5 marks]

ii. Determine the levels of inflation and utility under commitment and discretion, and comment on the policy choice of the central bank. [5 marks]

Question 4

a) State five basic principles that can serve as useful guides for central banks to help them achieve successful outcomes in their conduct of monetary policy. [5marks]

b) **i.** Suppose Lesotho removes tariffs on imports while at the same time, the demand for its exports is increasing. How would that affect the value of its currency relative to the Rand? Justify your answer. [5 marks]

ii. What would the Central Bank of Lesotho do to maintain the peg between Loti and Rand? Justify your answer. [5 marks]

c) If the South African Reserve Bank can deviate from its mandate and print money to reduce unemployment, what would happen to the value of the Rand in the short-run and the long-run? Use relevant models to support your answer. [10 marks]

Question 5

a) How can a central bank overcome the time-inconsistency problem? [5 marks]

b) Discuss the AS-AD model, a structural model, with regards to money supply growth and the price level? [10 marks]

c) As a young graduate, you have just obtained a contract that pays you M4,500 per month and you are using all that money to cover your monthly expenses, which must be financed through cash. Suppose commercial banks are promising to give you an interest rate of 1.77% per month if your money is kept in their savings account, but they will charge you a fixed fee of M10 plus 0.1% of the amount withdrawn every time you withdraw your money. If you choose to take advantage of this offer,

i. What would be the amount of withdrawals, the number of times you would have to make them and the cost of holding money over a month? [5 marks]

ii. If the commercial banks increase the interest rate to 4% per month, how would your previous plan change? [5 marks]