



UNIVERSITY EXAMINATIONS

FIRST YEAR EXAMINATION FOR THE AWARD OF THE DEGREE OF BACHELOR IN AGRIBUSINESS MANAGEMENT AND AGRICULTURAL ECONOMICS

SECOND SEMESTER 2024/2025

[JANUARY – APRIL, 2025]

ECON 121: PRINCIPLES OF MACROECONOMICS

STREAM: Y1 S2

TIME: 2 HOURS

DAY: WEDNESDAY, 3:00 - 5:00 P.M.

DATE: 09/04/2025

INSTRUCTIONS:

- 1. Do not write anything on this question paper.**
- 2. Answer question ONE in section A (Compulsory) and any other THREE questions from section B.**

SECTION A:

QUESTION ONE

A country produces only three goods: **Wheat, Cars, and Computers**. The following table provides production and price data:

Item	Quantity Produced	Price per Unit (2022)	Price per Unit (2023)
Wheat	500 tons	\$200	\$220
Cars	100 units	\$10,000	\$12,000
Computers	200 units	\$1,500	\$1,800

- (a) Calculate **Nominal GDP** for 2022 and 2023. [6 marks]
- (b) Calculate **Real GDP for 2023** using 2022 prices. [6 marks]
- (c) Compute the **GDP deflator** for 2023 and interpret your result. [6 marks]
- (d) Calculate the **real GDP growth rate** from 2022 to 2023. [7 marks]

QUESTION TWO

A country's labour force statistics are as follows:

Year	Population	Labor Force	Employed	CPI
2022	50 million	30 million	27 million	100
2023	52 million	32 million	28 million	110

- (a) Calculate the **unemployment rate** for 2022 and 2023. [6 marks]
- (b) Calculate the **inflation rate** from 2022 to 2023. [6 marks]
- (c) If nominal wages increased by **8%**, compute the **real wage growth**. [6 marks]
- (d) Discuss the possible **trade-off between inflation and unemployment** using the Phillips Curve. [7 marks]

QUESTION THREE

The aggregate demand function is given as:

$$AD=C+I+G+(X-M)$$

where:

$$Y = C + I + G + (X - M)$$

$$C=500+0.8Y$$

$$I=200$$

$$G=300$$

$$X=150,$$

$$M=100+0.1Y$$

- (a) Derive the **equilibrium national income (Y)**. [10 marks]
- (b) If government spending increases by **\$100 billion**, what is the new equilibrium income? [6 marks]
- (c) Calculate the **multiplier effect**. [4 marks]
- (d) Explain how this increase in government spending impacts the AS curve. [5 marks]

QUESTION FOUR

A bank has **\$10 million** in reserves and a required reserve ratio of **10%**.

- (a) Calculate the **total money supply** created through the banking system. [6 marks]
- (b) If the central bank increases reserves by **\$5 million**, determine the new

total money supply. [6 marks]

(c) What happens to interest rates and inflation if the central bank lowers the reserve requirement? [6 marks]

(d) Discuss the limitations of monetary policy in controlling inflation. [7 marks]

QUESTION FIVE

A country has the following data (in billion \$):

Trade in Goods	Trade in Services	Remittances	Foreign Investments	Reserves
-200	+100	+50	+80	-30

- (a) Calculate the **current account balance**. (6 marks)
- (b) Compute the **capital and financial account balance**. (6 marks)
- (c) Determine if the balance of payments is in surplus or deficit. (6 marks)
- (d) Explain the impact of exchange rate depreciation on the trade balance. (7 marks)

OR

A country's GDP components are:

- **Consumption = \$3,000 billion**
- **Investment = \$1,500 billion**
- **Government Spending = \$2,000 billion**
- **Exports = \$800 billion**
- **Imports = \$600 billion**

- (a) Calculate GDP using the expenditure method. (6 marks)
- (b) Compute the **net exports**. (6 marks)
- (c) Explain how GDP growth affects economic policy. (6 marks)
- (d) Discuss the importance of investment in long-term growth. (7 marks)

QUESTION SIX

- a) Distinguish the terms macroeconomics and microeconomics [5 Marks]
- b) Outline and briefly explain three of the major concerns of macroeconomics [6 Marks]
- c) Describe the importance of Macroeconomics [8 Marks]
- d) Briefly discuss the Limitation of Macroeconomics [6 Marks]