



ZCAS University

**SEC 5202 MACROECONOMICS AND ECONOMIC ENVIRONMENT
MID-SEMESTER EXAMINATION**

DATE: 19th October 2023

TIME: 16:30-19:30 HRS

TIME ALLOWED: READING AND WRITING – THREE HOURS

INSTRUCTIONS:

1. Section A: this question is **compulsory** and must be attempted.
2. Sections B: Answer **Two(2)** questions from this section.
3. This examination paper carries a total of **100 marks**.
4. Candidates must **not turn this page** until the invigilator tells them to do so.

SECTION A: Question 1 is compulsory and must be attempted

Question 1

Zambia is a small open, resource-rich economy with a population size of about 19 million in 2020. Zambia is also a politically stable country having a regular election every five years. The next one will be in 2026. A major feature of the Zambian macro economy is its dependence on copper as the most important export item. Both changes in the volume of exports and global prices of copper determine the pattern of economic growth and related major macro variables such as trade balance, fiscal balance, exchange rate and inflation in Zambia. Just before the outbreak of COVID-19, the Zambian economy witnessed weak macroeconomic conditions. The economy faced substantial problems of unmanageable public debt, unsustainable fiscal balances, and significant inflationary and currency depreciation pressures. Before the emergence of COVID-19 as a major economic shock, the government of Zambia pursued a comprehensive policy program supported by International Financial Institutions (IFIs) such as the International Monetary Fund (IMF) and the World Bank. The IFIs generally focus on pressuring the government to engage in contractionary fiscal and monetary policies and debt management, using lending as leverage.

Source United Nations Conference on Trade and Development, UNCTAD, Research Paper 79 https://unctad.org/system/files/official-document/ser-rp-2021d22_en.pdf

- (a). Inflation may be caused by demand-pull factors or cost-push factors. Define inflation and analyse this statement in the context of the Zambian economy during and after the COVID-19 economic shock and suggest measures of mitigating such type of inflation. **[10 marks]**
- (b). Explain why prudent debt management is both an economic recovery strategy from the COVID-19 economic shock and a source of long-run sustained economic growth for Zambia. **[8 marks]**

(c) Table 1 shows Gross Domestic Product (GDP) and GDP deflator for Zambia for the period 2019-2022 obtained from the World Bank's World Development Indicators.

Table 1: Some Macroeconomic Variables for Zambia

Year	GDP Deflator	Annual Inflation rate (%)	Nominal Annual GDP (USD Billions)	% change in nominal GDP
2019	107.6		23.3	
2020	121.3		18.1	
2021	148.9		22.2	
2022	157.5		29.8	

Source: World Development Indicators, WDI.

- (i) Taking 2018 as the base year (GDP deflator =100), calculate the annual inflation rate for each year. Show your work. **[4 marks].**
- (ii). The nominal GDP in 2018 was 26.3 billion US dollars. Compute the % change in nominal GDP for 2019, 2020, 2021 and 2022. Show your work. **[8 marks].**
- (d). Critically evaluate the impact of contractionary fiscal and monetary policies on aggregate demand, Investment, output, and consumption levels. **[10 marks]**
- (e). Recommend some measures that the Zambian Government can take to reduce its dependency on copper as the major forex earner, given its land-linked position with 8 countries. **[10 marks]**

[Total 50marks]

SECTION B: Attempt any TWO questions in this section

QUESTION TWO

Unemployment is a global problem because every country faces this socio-economic challenge regardless of its economic or development status. The labour surveys of households are used to determine unemployment. Each household's adult (age 16 and older) is placed into one of three categories: Employed, unemployed and not in the labour force. The labour-force participation rate which is the ratio of the labor force to the adult population expressed in percentage terms, helps governments estimate the proportion of the adult population that is in the labor force. Economic developments, such as the booms (economic growth) and busts (economic contractions) of the business cycle reflect reductions and increases in the

unemployment rates in each economy or country. Table 2 shows the labor market statistics of a large, developed economy in 2021.

Table 2: Labor market statistics.

Population 16 years & older	Employed	Unemployed	Not in the labor force
239.9 million	139.6 million	14.0 million	?

- (a). Define labour force and hence calculate the labour force for this country. [3 marks]
- (b). Using the answer you found in (a), compute the number of people not in the labour force. [3 marks]
- (c). Define the concept of unemployment and calculate the unemployment rate in 2021. [5 marks].
- (d). Compute the labor force participation rate and comment on your answer. [5 marks]
- (e). Give a macroeconomic analysis of why the unemployment rate falls during booms and rises during busts (Business cycles). [5 marks]
- (f). Why are high unemployment rates undesirable? [4 marks]

[Total 25 marks]

QUESTION THREE

A closed economy called the “Land of Economic Emancipation” is characterized by the following behavioural equations:

$$C = 320 + 0.9Y_D$$

$$I = 200$$

$$G = 400$$

$$T = 150$$

- (a). Explain the concept of a closed economy and outline one advantage and one disadvantage of being a closed economy. [3 marks]
- (b) Solve for the following variables.
- (i). Equilibrium GDP (Y) [10 marks]
- (ii). Disposable income (Y_D) [2 marks]
- (iii). Consumption spending (C) [5 marks]
- (c). Given the consumption spending expressed as $C = 320 + 0.9Y_D$ What are the values of autonomous consumption (c_0) and marginal consumption (mpc) respectively? [2marks]

[Total 25 marks]

QUESTION FOUR

- (a). Discuss the following statements, giving reasons for whether you agree or disagree.
- (i). The Phillips curve implies that when unemployment is high, inflation is low, and vice versa. Therefore, we may experience either high inflation or high unemployment, but we will never experience both together **[5 marks]**
 - (ii). As long as we do not mind having high inflation, we can achieve as low a level of unemployment as we want. All we must do is increase the demand for goods and services by using, for example, expansionary fiscal policy **[5marks]**
 - (iii). The demand for money does not depend on the interest rate because only bonds earn Interest. **[5marks]**
- (b). Consider whether each of the following events is likely to increase or decrease real GDP. In each case, do you think economic well-being most likely changes in the same direction as real GDP? Parliament passes new environmental laws that prohibit firms from using production methods that emit large quantities of pollution **[5marks]**
- (ii). The discovery of a new, easy-to-grow seed varieties of maize increases maize harvests **[5 marks].**

[Total 25 marks]

END OF EXAMINATION