Introductory Macroeconomics – Question Paper

Instructions: Answer all questions. The marks for each question are indicated in brackets.

Section A: Multiple Choice Questions (10 Marks)

Which of the following is primarily a macroeconomic topic? (1 mark)

a) The price of apples

b) A firm's hiring decision

c) The inflation rate

d) Consumer choice between two brands of cereal

GDP stands for: (1 mark)

a) Gross Domestic Product

b) Great Development Program

c) Global Demand Price

d) Gross Domestic Product

In the circular flow model, households provide firms with: (1 mark)

a) Goods and services

b) Factors of production (labor, capital, land)

c) Taxes

d) Government regulations

Which of the following is NOT included in the calculation of GDP? (1 mark)

a) New car sales

b) Government spending on infrastructure

c) The sale of a used house

d) Business investment in new equipment

If nominal GDP increases while real GDP stays the same, then: (1 mark)

a) Prices have decreased.

b) Prices have increased.

c) Output has increased.

d) The economy is in a recession.

The unemployment rate is calculated as: (1 mark)

a) (Number of employed / Labor force) * 100

b) (Number of unemployed / Total population) * 100

c) (Number of unemployed / Labor force) * 100

d) (Labor force / Total population) * 100

Inflation is a: (1 mark)

a) Decrease in the general price level

b) Increase in the general price level

c) Period of economic recession

d) Measure of unemployment

The aggregate demand curve shows the relationship between: (1 mark)

a) Price level and aggregate supply

b) Price level and quantity of aggregate output demanded

c) Interest rates and investment

d) Government spending and tax rates

Fiscal policy refers to: (1 mark)

a) Actions taken by the central bank to control the money supply

b) Government's decisions about spending and taxation

c) Regulations on businesses

d) International trade agreements

Which of the following is a tool of monetary policy? (1 mark)

a) Government spending

b) Taxation

c) Open market operations

d) Wage controls

Section B: Short Answer Questions (30 Marks)

Explain the difference between nominal GDP and real GDP. Why is real GDP a better measure of economic growth? (5 marks)

Describe the three methods of calculating GDP. (5 marks)

Explain the different types of unemployment (frictional, structural, cyclical). Give an example of each. (6 marks)

What are the main causes of inflation? Explain the difference between demand-pull and cost-push inflation. (6 marks)

Explain the concept of the multiplier effect. How does it relate to government spending? (4 marks)

What are the functions of money? (4 marks)

Section C: Long Answer Questions (30 Marks)

a) Draw and explain the Aggregate Demand (AD) and Aggregate Supply (AS) model. (7 marks)

b) Explain how an increase in government spending would affect the AD curve and the equilibrium level of output and prices in the short run. (8 marks)

a) Describe the functions of a central bank. (7 marks)

b) Explain how a central bank can use open market operations to increase the money supply. What is the likely effect of this policy on interest rates and aggregate demand? (8 marks)

Suggested Answer Key

Section A: Multiple Choice Answers

C

A

B

C

B

C

B

B

B

C

Section B: Short Answer Answers

Nominal GDP is the value of goods and services produced in an economy at current prices. Real GDP is the value of goods and services produced in an economy at constant prices (i.e., adjusted for inflation). Real GDP is a better measure of economic growth because it reflects changes in the quantity of goods and services produced, not just changes in prices. An increase in nominal GDP might just be due to inflation, not actual increased production. (5 marks)

The three methods of calculating GDP are:

Expenditure Approach: GDP = C + I + G + (X – M), where C = Consumption, I = Investment, G = Government Spending, X = Exports, and M = Imports.

Income Approach: GDP = Sum of all income earned in the economy (wages, salaries, profits, rent, interest).

Production (Value Added) Approach: Sum of the value added at each stage of production across all industries in the economy. Value added is the difference between the value of a firm's output and the cost of its intermediate inputs. (5 marks)

Frictional Unemployment: Unemployment due to the time it takes for workers to find a job that matches their skills and preferences. Example: A recent college graduate looking for their first job.

Structural Unemployment: Unemployment that arises from a mismatch between the skills of workers and the skills demanded by employers. Example: A coal miner who loses their job due to the decline of the coal industry.

Cyclical Unemployment: Unemployment that is caused by a downturn in the business cycle (recession). Example: A construction worker who is laid off during an economic recession. (6 marks)

The main causes of Inflation are:

Demand-Pull Inflation: Occurs when there is too much money chasing too few goods, leading to an increase in prices. This can be caused by increases in aggregate demand due to factors like increased government spending, consumer confidence, or export demand.

Cost-Push Inflation: Occurs when the costs of production increase (e.g., wages, raw materials, energy prices), leading firms to raise prices.

Demand-pull inflation is caused by increased demand, whereas cost-push inflation is caused by rising costs of production. (6 marks)

The multiplier effect is the phenomenon whereby an initial change in aggregate demand (e.g., government spending) can have a magnified effect on overall output and income. The multiplier is calculated as 1/(1-MPC), where MPC is the marginal propensity to consume (the fraction of an additional dollar of income that is spent). Government spending has a multiplier effect because when the government spends money, it becomes income for someone else, who then spends a portion of that income, creating further income for others, and so on. (4 marks)

The functions of money are:

Medium of Exchange: Money is used to facilitate transactions, avoiding the need for barter.

Unit of Account: Money provides a common measure of value for goods and services, allowing for easy comparison of prices.

Store of Value: Money allows individuals to transfer purchasing power from the present to the future. (4 marks)

Section C: Long Answer Answers

a) The Aggregate Demand (AD) curve shows the relationship between the overall price level in the economy and the quantity of aggregate output demanded. It slopes downward because as the price level falls, the purchasing power of money increases, interest rates tend to fall (encouraging investment), and exports become relatively cheaper (increasing net exports).

The Aggregate Supply (AS) curve shows the relationship between the overall price level and the quantity of aggregate output supplied. In the short run, the AS curve is upward sloping because wages and other input costs are sticky. As the price level rises, firms can increase profits by producing more output. In the long run, the AS curve is vertical at the potential level of output, reflecting the fact that in the long run, output is determined by the availability of resources and technology, not the price level. [Diagram is expected with properly labelled axes, AD and SRAS curve.] (7 marks)

b) An increase in government spending would shift the AD curve to the right. In the short run, this would lead to an increase in both the equilibrium level of output and the equilibrium price level. The magnitude of the increase in output will depend on the size of the multiplier effect and the slope of the AS curve. If the AS curve is relatively flat, the increase in output will be larger, and the increase in the price level will be smaller. If the AS curve is relatively steep, the increase in output will be smaller, and the increase in the price level will be larger. (8 marks)

A) The functions of a central bank include:

Issuing Currency: Printing and distributing the nation's currency.

Acting as a Banker to Banks: Providing banks with a place to deposit reserves and borrow money.

Acting as a Lender of Last Resort: Providing loans to banks in times of financial crisis.

Conducting Monetary Policy: Controlling the money supply and credit conditions to promote economic stability and full employment.

Supervising and Regulating Banks: Ensuring the safety and soundness of the banking system. (7 marks)

c) A central bank can increase the money supply through open market operations, which involve buying government bonds from commercial banks. When the central bank buys bonds, it credits the banks' reserve accounts. These increased reserves allow banks to make more loans, which increases the money supply. The likely effect of this policy is to lower interest rates. With more money available, the supply of loanable funds increases, putting downward pressure on interest rates. Lower interest rates stimulate investment and consumer spending, leading to an increase in aggregate demand. The AD curve shifts to the right, leading to higher output and potentially higher prices (depending on the slope of the AS curve). (8 marks)