**SECTION A: HAS 5 Questions worth 15 Marks Each**

**Question 1**

1. **Explain the distinction between fiscal and monetary policy (3 marks)**

**Fiscal policy** is the use of taxes, government transfers, or government purchases of goods and services to stabilize the economy.

In other words, Fiscal policy is the use of either government spending—government purchases of final goods and services and government transfers—or tax policy to stabilize the economy. In practice, governments often respond to recessions by increasing

**Monetary policy** is the central bank’s use of changes in the quantity of money or the interest rate to stabilize the economy.

1. **Explain the three types of fiscal policy. (6 marks)**

* Expansionary fiscal policy
* Contractionary fiscal policy
* Neutral fiscal policy

1. **Give any 3 ways through which government expenditure can be funded (6marks)**

* Taxation of the population
* Borrowing money from population, resulting in a s fiscal deficit
* Funding of deficits through bonds
* Seignorage, the benefit from printing money

**Question 2**

1. **Explain the distinction between Malawi’s nominal exchange rates and real exchange rates (4 marks)**

**Nominal exchange rate:** The exchange rates listed at currency exchange booths.

**Real Exchange rate**: Rates calculated by economists. It’s the exchange rate that is adjusted for international differences in aggregate price levels.

1. **In relation to international trade, explain David Ricardo’s theory of comparative advantage and Heckscher, Ohlin and Samuelson theory of factor endowment. (6 marks)**

An country has a comparative advantage in producing something if the opportunity cost of that production is lower for that individual than for other countries. On the other hand factor endowment theory stipulates that a country’s factors of production (country’s endowments of inputs) used to make each good give rise to productivity differs between countries.

Therefore the factor of production abundance versus factor scarcity entails that when a country enjoys a relative abundance of a factor, the factor’s relative cost is less than in countries where the factor is relatively scarce and thus result into a country’s comparative advantage which lies in the production of goods that use relatively abundant factors.

1. **State the assumptions underlying the theory of comparative advantage (5 marks)**

* Perfect occupational mobility
* Constant returns to scale
* No externalities
* Transportation costs are ignored

**Question 3**

**Determine the effect on short -run aggregate supply (SRAS) of each of the following events. Explain whether it represents a movement along the SRAS curve or a shift of the SRAS curve.**

**a. A rise in the consumer price index (CPI) leads producers to increase output. (3 marks)**

This represents a movement along the SRAS curve because the CPI—like the GDP deflator—is a measure of the aggregate price level, the overall price level of final goods and services in the economy.

**b. A fall in the price of oil leads producers to increase output. (3 marks)**

This represents a shift of the SRAS curve because oil is a commodity. The SRAS curve will shift to the right because production costs are now lower, leading to a higher quantity of aggregate output supplied at any given aggregate price level.

**c. A rise in legally mandated retirement benefits paid to workers leads producers to reduce output. (4 marks)**

This represents a shift of the SRAS curve because it involves a change in nominal wages. An increase in legally mandated benefits to workers is equivalent to an increase in nominal wages. As a result, the SRAS curve will shift leftward because production costs are now higher, leading to a lower quantity of aggregate output supplied at any given aggregate price level.

**d. Explain the equilibrium in the Aggregate Demand–Aggregate Supply Model (5 marks)**

In the AD–AS model, the aggregate supply curve and the aggregate demand curve are used together to analyze economic fluctuations. Their point of intersection is the point of short –run macroeconomic equilibrium where the quantity of aggregate output demanded is equal to the quantity of aggregate output supplied. The price at the point intersection is the short -run equilibrium aggregate price level, and the real GDP at the point of intersection is the short - run equilibrium level of aggregate output.

**Question 4**

**a. Explain how the short - run Phillips curve illustrates the negative relationship between cyclical unemployment and the actual inflation rate for a given level of the expected inflation rate. (5 marks)**

The short -run Phillips curve is the negative short -run relationship between the unemployment rate and the inflation rate. It explains the inverse correlation between unemployment and inflation. In essence it stipulates that when the unemployment rate was high, the wage rate tended to fall, and when the unemployment rate was low, the wage rate tended to rise.

Or

When real GDP equals potential output, cyclical unemployment is zero and the unemployment rate is equal to the natural rate. An increase in aggregate demand leads to a fall in the unemployment rate below the natural rate (negative cyclical unemployment) and an increase in the inflation rate. A reduction in aggregate demand leads to a rise in the unemployment rate above the natural rate (positive cyclical unemployment) and a fall in the inflation rate. So for a given expected inflation rate, the short-run Phillips curve illustrates the relationship between cyclical unemployment and the actual inflation rate.

**b. Why won’t anyone lend money at a negative nominal rate of interest? How can this pose problems for monetary policy? (5 marks)**

If the nominal interest rate is negative, an individual is better off simply holding cash, which has a 0% nominal rate of return. If the options facing an individual are to lend and receive a negative nominal interest rate or to hold cash and receive a 0% nominal rate of return, the individual will hold cash. Such a scenario creates the possibility of a liquidity trap, in which monetary policy is ineffective because the nominal interest rate cannot fall below zero. Once the nominal interest rate falls to zero, further increases in the money supply will lead firms and individuals to simply hold the additional cash.

**c. Why is disinflation so costly for an economy? Are there ways to reduce these costs? (5marks)**

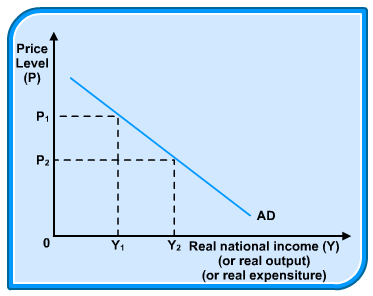
Disinflation is costly because to reduce the inflation rate, aggregate output in the short run must typically fall below potential output. This, in turn, results in an increase in the unemployment rate above the natural rate. In general, we would observe a reduction in real GDP. The costs of disinflation can be reduced by not allowing inflation to increase in the first place. The costs of any disinflation will also be lower if the central bank is credible and it announces in advance its policy to reduce inflation. In this situation, the adjustment to the disinflationary policy will be more rapid, resulting in a smaller loss of aggregate output.

**SECTION A: HAS 5 Questions worth 20 Marks Each**

**Question 5**

**Explain the three reasons with the illustration of a diagram why the aggregate demand curve downward sloping. (20 marks)**

The Aggregate Demand Curve The aggregate demand curve shows the relationship between the aggregate price level and the quantity of aggregate output demanded. The curve is downward sloping due to the wealth effect of a change in the aggregate price level, the interest rate effect of a change in the aggregate price level, and the net exports effect



**Reasons for a downward‐sloping aggregate demand curve**. Three reasons cause the aggregate demand curve to be downward sloping. The first is the **wealth effect**. The aggregate demand curve is drawn under the assumption that the government holds the **supply of money** constant. One can think of the supply of money as representing the economy's wealth at any moment in time. As the price level *rises*, the wealth of the economy, as measured by the supply of money, declines in value because the purchasing power of money falls. As buyers become poorer, they reduce their purchases of all goods and services. On the other hand, as the price level *falls*, the purchasing power of money rises. Buyers become wealthier and are able to purchase more goods and services than before. The wealth effect, therefore, provides one reason for the inverse relationship between the price level and real GDP that is reflected in the downward‐sloping demand curve.

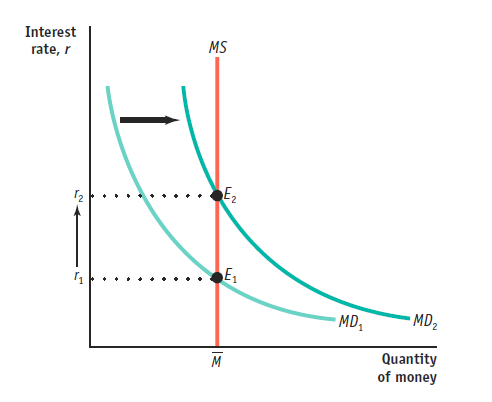
A second reason is the **interest rate effect**. As the price level rises, households and firms require more money to handle their transactions. However, the supply of money is fixed. The increased demand for a fixed supply of money causes the price of money, the **interest rate**, to rise. As the interest rate rises, spending that is sensitive to rate of interest will decline. Hence, the interest rate effect provides another reason for the inverse relationship between the price level and the demand for real GDP.

The third and final reason is the **net exports effect**. As the domestic price level rises, foreign‐made goods become relatively cheaper so that the demand for *imports* increases. However, the rise in the domestic price level also means that domestic‐made goods are relatively more expensive to foreign buyers so that the demand for *exports* decreases. When exports decrease and imports increase, *net exports* (exports ‐ imports) decrease. Because net exports are a component of real GDP, the demand for real GDP declines as net exports decline.

**Question 6**

**a. Assume that there is an increase in the demand for money at every interest rate. Using a diagram, show what effect this will have on the equilibrium interest rate for a given money supply. (10marks)**

In the accompanying diagram below, the economy is originally in equilibrium at E1 with the equilibrium interest rate r1 and the money supply M. An increase in the demand for money is shown as a rightward shift of the money demand curve, from MD1 to MD2. This raises the equilibrium interest rate from r1 to r2.

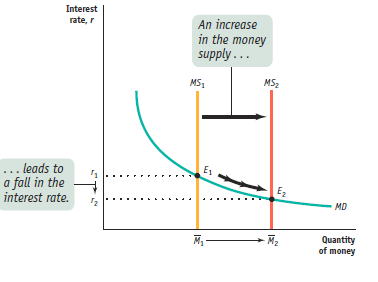
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**b. Explain what would happen to interest rates and any shift that would take place if the Reserve Bank of Malawi expanded the supply of money by applying a monetary policy. (10 marks)**

In the accompanying diagram below, the economy is originally in equilibrium at E1 with the equilibrium interest rate r1 and the money supply M1. An increase in money supply (from MS1 to MS2) by the Reserve Bank of Malawi will result into a shift to the right of the money supply from M1 to M2, and leads to a fall in the equilibrium interest rate from r1 to r2,.

This is because r2 is the only interest rate at which the public is willing to hold the quantity of money actually supplied, M2. So an increase in the money supply drives the interest rate down. Similarly, a reduction in the money supply drives the interest rate up. By adjusting the money supply

up or down, the Reserve Bank of Malawi can set the interest rate.



**Question 7**

**a. Explain why the three methods of calculating GDP produce the same estimate of GDP. (10 marks)**

Let’s start by considering the relationship between the total value added of all domestically produced final goods and services, and aggregate spending on domestically produced final goods and services. These two quantities are equal because every final good and service produced in the economy is either purchased by someone or added to inventories, and additions to inventories are counted as spending by firms.

Next, consider the relationship between aggregate spending on domestically produced final goods and services and total factor income. These two quantities are equal because all spending that is channeled to firms to pay for purchases of domestically produced final goods and services is revenue for firms. Those revenues must be paid out by firms to their factors of production in the form of wages, profit, interest, and rent. Taken together, this means that all three methods of calculating GDP are equivalent.

**b. Explain why a K500 million increase in Malawi Government purchases of goods and services will generate a larger rise in real GDP than a MK500 million increase in government transfers? (10 marks)**

A MK500 million increase in government purchases of goods and services directly increases aggregate spending by MK500 million, which then starts the multiplier in motion. It will increase real GDP by MK500 million × 1/(1 − MPC). A MK500 million increase in government transfers increases aggregate spending only to the extent that it leads to an increase in consumer spending.

Consumer spending rises by MPC × MK1 for every MK1 increase in disposable income, where MPC is less than 1. So a MK500 million increase in government transfers will cause a rise in real GDP only MPC times as much as a MK500 million increase in government purchases of goods and services. It will increase real GDP by MK500 million × MPC/(1 − MPC).

**Question 8**

**Suppose that the government places price controls on the market for college professors/lecturers at the University of Malawi by imposing a wage that is lower than the market wage. Describe the effect of this policy on the production of college degrees. What sectors of the economy do you think would be adversely affected by this policy? What sectors of the economy might benefit? (20 marks)**

Many college professors will depart for other lines of work if the government imposes a wage that is lower than the market wage. Fewer professors will result in fewer courses taught and therefore fewer college degrees produced. It will adversely affect sectors of the economy that depend directly on colleges, such as the local shopkeepers who sell goods and services to students and faculty, college textbook publishers, and so on.

It will also adversely affect firms that use the “output” produced by colleges: new college graduates. Firms that need to hire new employees with college degrees will be hurt as a smaller supply results in a higher market wage for college graduates. Ultimately, the reduced supply of college-educated workers will result in a lower level of human capital in the entire economy relative to what it would have been without the policy. And this will hurt all sectors of the economy that depend on human capital.

The sectors of the economy that might benefit are firms that compete with colleges in the hiring of would-be college professors. For example, accounting firms will find it easier to hire people who would otherwise have been professors of accounting, and publishers will find it easier to hire people who would otherwise have been professors of English (easier in the sense that the firms can recruit would-be professors with a lower wage than before). In addition, workers who already have college degrees will benefit; they will command higher wages as the supply of college educated workers falls.