1. (a) Compare and contrast between the bargaining theory and the efficiency theory of wage determination.
(b) Derive the aggregate supply equation from the wage setting and price setting relations. Draw an aggregate supply curve and explain the following two properties of the curve:
   (i) Aggregate supply curve passes through a point where Y = Y_n and P = P^e. where P^e is expected price level and Y_n is natural level of output.
   (ii) An increase in the expected price level P^e shifts the aggregate supply curve up and a decrease in the expected price level shifts the aggregate supply curve down.
(c) Consider an economy that is in the medium run equilibrium. Examine the short run and medium run impact of an increase in petroleum price on the level of output and the rate of unemployment in this economy.

2. (a) Discuss the following with relevant diagrams in the context of an economy with fixed price level:
   (i) Monetary accommodation of fiscal expansion.
(ii) Investment subsidy.

(b) Discuss the adjustment of output, interest rate and price level in response to a fiscal expansion in an AD-AS and IS-LM framework. Does the composition of the aggregate output change as a result of this adjustment? Explain.

(c) (i) Distinguish between nominal rate of interest and real rate of interest.

(ii) Do you agree that the demand for money depends on the nominal rate of interest, whereas; the demand for investment depends on the real rate of interest? Answer with reason.

(ii) Discuss the Fisher effect.

3. (a) What is wage indexation? Show that wage indexation raises the impact of a given deviation of unemployment rate from its natural rate on the inflation rate.

(b) Suppose an economy is characterised by the following equations:

\[ u_t - u_{t-1} = -0.4(g_{yt} - 3\%) \]

Okun's law

\[ \pi_t - \pi_{t-1} = -(u_t - 5\%) \]

Phillip's curve

\[ g_{yt} = g_{mt} - \pi_t \]

Aggregate demand

\( u, g_y, g_m, \pi \) represent unemployment rate, growth of output, growth of money supply and inflation rate respectively.

(i) What is the natural rate of unemployment for this economy?

(ii) Suppose that the unemployment rate is equal to the natural rate and the inflation rate is 8%. What is the growth rate of output? What is the growth rate of money supply?

(c) Explain the basic idea of adaptive expectation hypothesis. Explain how this hypothesis is based on a flawed premise of model-inconsistency.
4.(a) What were the reasons for the breakdown of the Phillips curve relationship in the seventies

(b) Using the Aggregate Demand and the Lucas supply function show that any predictable part of the money supply should have no effect on output, employment or any other real variable in the economy.

(c) (i) Explain why errors of rational expectations are on average zero.

(ii) What are the limitations of rational expectations?

5. (a) Suppose an economy is characterized by perfectly mobile capital, fixed price level and fixed exchange rate. Discuss with the help of a diagram how an expansionary fiscal policy will affect the level of output in this economy.

(b) Explain the concept of covered interest arbitrage by means of an example. Discuss how the continuance of covered interest arbitrage affects the possibility of net gain to the domestic investor.

(c) Discuss the asset market approach to the determination of exchange rate. Do you believe that the asset market approach is a more realistic and satisfactory version of the monetary approach to exchange rate determination? Explain.

6. (a) Consider an economy under fixed exchange rate system with flexible domestic price level and fixed foreign price level. Suppose that the economy was initially at full employment and also its balance of trade balanced. However, a subsequent fall in exports has resulted in both unemployment and trade deficit for it.

Using AD-AS framework, show how the economy may get rid of both the problems automatically. Is this automatic adjustment process at all desirable? Explain.
(b) Explain the meaning of real devaluation under the fixed exchange rate system. What is the effect of a real devaluation on the international competitiveness of the domestically produced goods? Suppose the domestic economy experiences inflation above the rate of its trading partners; will it be prudent for it to still follow the fixed exchange rate system? In this context, discuss the concept of a crawling peg exchange rate policy.

(c) Discuss the concept of J-curve effect of devaluation. Explain the reasons for its occurrence.