1. (a) Suppose that the firm's markup over cost is 5%, and the wage-setting equation is

$W = P(1-u)$, where u is the unemployment rate.

(i) What is the real wage as determined by the price setting equation?

(ii) Suppose that the markup of price over cost increases to 10%. What happens to the natural rate of unemployment.

(b) Use the wage setting and price setting (WS-PS) diagram to show how the following factors impact the unemployment rate and real wages.

(i) An increase in unemployment benefits.

(ii) An increase in market power of time (makeup increase).

2. (a) Explain the difference between the participation rate and the unemployment rate.

(b) Explain life cycle hypothesis.

3. (a) Consider an economy with perfect capital mobility, fixed price level, and flexible exchange rate. Explain why monetary policy will be completely effective and fiscal policy will be ineffective in changing output.

(b) In the above scenario, explain how expansionary monetary policy may lead to competitive depreciation among the countries.

4. (a) Distinguish between the following :

(i) Adjustable Peg.

(ii) Crawling Peg.

(iii) Managed Floating exchange rate system.

(b) Discuss the J-curve.

(c) Briefly explain how foreign exchange risks leads to an opportunity of hedging and speculation.

5. (a) In a closed economy with AS and AD analysis explain the short-run and long-run effects of expansionary monetary policy on output.

(b) Suppose the utility function of a consumer is given by

$$\sum_{0}^{T} \frac{\ln c_t}{(1+\delta)^t}$$

A consumer wants to maximize c_t subject to the constraint

$$\sum_{0}^{T} \frac{c_t}{(1+r)^t} = \sum_{0}^{T} \frac{y_t}{(1+r)^t}$$

Given the above information derive

$$c_t = \left(\frac{1+r}{1+\delta}\right) c_{t-1}$$

Hint: Use the method of Lagrange Multiplier.

6. (a) Suppose that the Phillips curve is given by $\pi_t - \pi_t^e = -(u_t - 5\%)$ and the expected inflation is given by $\pi_t^e = \pi_{t-1}$.

(i) What is the sacrifice ratio of the economy?

Suppose that unemployment is initially equal to the natural rate and $\pi = 12\%$. The central bank decides that 12% inflation is

too high and that starting in year t, it will maintain the unemployment rate one percentage point above the natural rate of unemployment until the inflation rate is decreased to 2%.

(ii) Compute the rate of inflation for year t, t+1, t+2.

(iii) For how many years must the central bank keep the unemployment rate above the natural rate of unemployment? Is the implied sacrifice ratio consistent with your answer to (i).

(iv) What advice should you give to a central bank if it wants to achieve the same results quickly?

(b) Explain the difference between the criticism of the traditional approach to disinflation given by Lucas and Taylor.

7. Write a short note on **any three** of the following :

(a) Neutrality of money.

(b) Expansionary fiscal policy.

(c) Contractionary monetary policy.

(d) BoP deficit.

(e) Keynesian consumption function.