Please note that you can answer the questions either in English or Chinese.

1. Briefly discuss the reasons of wage rigidity. (5%)

2. Suppose the government decide to reduce its spending but also cut the tax at the same time with the same amount. Use the Keynesian-cross model to illustrate such impact graphically. (10%)

3. Assume that the \( LM \) curve for a small open economy with a floating exchange rate system is given by \( Y = 50r - 100 + 4(M/P) \). The \( IS \) curve of the same economy is \( Y = 300 + 6G - 2T + 3NX - 100r \). The function for \( NX \) is \( NX = 250 - 150e \), where \( e \) is the exchange rate. The price level is fixed at 2. The international interest rate is 4.5 percent. Answer the following questions.
   (a) Using the \( LM \) curve, find the equilibrium level of \( Y \) in the small open economy, if \( M = 150 \). (5%)
   (b) Given this value of \( Y \), if \( G = 150 \) and \( T = 200 \), what must be the equilibrium value of \( NX \)? (5%)
   (c) If this value of \( NX \) is to be achieved, what must be the equilibrium exchange rate? (5%)

4. Assume that we have a short-run aggregate supply (SRAS) equation as \( Y = \bar{Y} + \alpha(P - P^e) \), where \( Y \) is the output, \( \bar{Y} \) is the natural rate of output, \( P \) is the price level, and \( P^e \) is the expected price level. Derive, from the SRAS equation, the Phillips curve as \( \pi = \pi^e - \beta(u - u^*) + \nu \), where \( \pi \) is the inflation, \( \pi^e \) is the expected inflation, \( (u - u^*) \) is the cyclical unemployment, and \( \nu \) is the supply shock. (10%)

5. Briefly discuss the differences between traditional and Ricardian views of a tax cut and corresponding government debt increase. (10%)

6. 請說明什麼是包絡定理(Envelope Theorem)。 (10%)
7. 請解釋什麼是寇斯定理(Coase Theorem) 並舉例說明。 (15%)
8. 請說明什麼是要素價格均等化定理(Factor Price Equalization Theorem)。 (10%)
9. 請解釋什麼是納什均衡策略(Nash Equilibrium Strategies) 並舉例說明。 (15%)