Multiple Choice: (40%)  

1. Suppose that in the U.S. the MPC (marginal propensity to consumption) is 0.6 and in Taiwan the MPC is 0.8. If both economies are at full employment, the change in real GNP when government spending increases by $100 billion will be:  
   (a) larger in the U.S. than in Taiwan (b) larger in Taiwan than in the U.S. (c) the same in both countries (d) none of the above.  

2. According the classical economics, unemployment indicates:  
   (a) inadequate aggregate demand (b) that the price of labor relative to price of goods is too high to clear the labor market (c) that the price of labor relative to prices of goods is too low to clear the labor market (d) the need for government policies to stimulate aggregated demand.  

3. In the classical “stationary state”,  
   (a) profit are zero (b) economic growth ceases (c) a and b (d) none of the above.  

4. If the required ratio is 25%, a $200 new deposit can result in a maximum increase in the money supply of:  
   (a) 50 (b) 150 (c) 267 (d) 800.  

5. According to the Neo-classical growth model, an increase in the saving rate ___ the short-run growth of output.  
   (a) decreases (b) increases (c) does not affect (d) none of the above.  

6. Which of the following is a debt instrument?  
   (a) bond (b) note (c) bill (d) all of the above.  

7. According to the “valuation theory of securities”, the relationship between the security price and interest rate is:  
   (a) negative (b) positive (c) ambiguous (d) none of the above.
3. Suppose the Lucas aggregated supply curve is given by \( Y = 300 - 20(\text{Pe}/P) \), and the aggregated demand curve is given by \( Y = 30 + (M/P) + G \), where \( P \) and \( \text{Pe} \) are actual and expected price level, \( M \) is the money supply, and \( G \) is the government expenditure. What is the rational expectation of \( P \) if the expected value of \( M \) equals the actual value of 400 and government expenditure is equal to 50?
   (a) 1 (b) 2 (c) 3 (d) 4.

9. In the basic Keynesian income determination model, unemployment and inflation
   (a) are explained in terms of aggregated demand only (b) cannot occur at the same time (c) are impossible in the long run (d) a and b.

10. Suppose we have a IS-LM-BP model as following:
    \[ Y = C + I + G + NX, \quad C = 100 + 0.8(Y - T), \quad I = 200 - 100r, \quad (M/P) = 100 + 0.3Y - 100r, \quad NX = 500 - 0.5Y + 10e, \quad NCO = 100 - 50(r - rf), \]
    where \( r \) is the domestic interest rate, \( rf \) is the foreign interest rate, \( NX \) is the net export, \( e \) is the exchange rate and NCO is the net capital outflow. What is the equilibrium income when the \( G \) and \( T \) are both increase by 100?
    (a) 24.5 (b) 30.8 (c) 41.2 (d) none of the above.

11. Recently, the official statistical record has shown that the unemployment rate at Taiwan has increased to the 3.7%.
    Which type of the unemployment has happened at Taiwan now?
    (a) frictional unemployment (b) cyclical unemployment (c) structural unemployment (d) none of the above.

12. An increase in the price level will shift the consumption function downward because it decreases the real wealth, this is the
    (a) Pigou effect (b) Keynesian effect (c) price effect (d) income distribution effect.

13. Which one of the following will the Monetarist adopt to control the inflation?
    (a) Cold Turkey (b) Gradualist (c) a and b (d) none of the above.

14. If a country’s interest rates are lower than other countries’, capital leaves the country until the country’s currency expected to
    (a) appreciate (b) depreciate (c) stay put (d) none of the above.

15. Suppose a policy reduces the inflation rate from 10 to 4 percent over a 3-year period, at the cost of levels of output that are 10 percent below potential in the first year, 8 percent below potential in the second year, and 6 percent below potential in the third year. What is the sacrifice ratio?
    (a) 4 (b) 6 (c) 8 (d) 10.
6. Which one of the following is the function of Money?
   (a) medium of exchange (b) store of value (c) standard of deferred payment (d) all of the above.

7. Under the AD-AS model, an increase in the money stock, resulting in the
   (a) higher level of both price and output (b) lower level of price and higher level of output (c) higher level of price
   and lower level of output (d) lower level of both price and output.

8. Under the IS-LM model, if we face a liquidity trap then the effects of an increase in government spending will:
   (a) increase the interest rate (b) cause the output not change (C) have the perfectly crowding out effect (d) all of the
   above.

9. Which one of the following is not the index of leading economic indicators?
   (a) stock price (b) money supply (c) the length of the average workweek in manufacturing (d) all of the above.

10. Real business cycle theory asserts that the fluctuation in ____ is the result of a variety of real shocks hitting the
    economy.
    (a) output (b) price (c) consumption (d) investment.

**Essay Questions: (60%)**

1. Government expenditures are financed by various methods. Distinguish between such methods with respect to their
   effects on the money supply. (5%)

2. Suppose you are the Minister of Economic Division at Taiwan, how would you solve the problems of high
   unemployment and the large outflow of domestic capital to mainland China? (5%)

3. Assume a consumer with the utility function is:
   \[ U(X, Y) = X \cdot Y \]

   and the budget constraint is:
   \[ M = P_x \cdot X + P_y \cdot Y \]

   (a) Derive the demand for x and y in terms of the parameters. (10%)

   (b) Derive the own-price elasticities of demand \( E_x \) and \( E_y \). (10%)
4. Explain why economists believe that monopolies are inefficient. (5%) Suppose that the government imposes an excise tax on monopoly in order to correct the above problem. What are the effects of a tax on output and price? (5%) 

5. What is an externality? (3%) List the various types of externalities. (2%) Discuss why externalities justify government intervention. (5%) 

6. Suppose a consumer has an initial wealth of 160,000 subject to a fire risk. There is a 5 percent probability with a loss of 70,000 and a 5 percent probability with a loss of 120,000. Her utility function is: 

\[ U = W^{0.5} \]

She is offered a full insurance policy. What is the maximum premium that she is willing to pay for this policy? (10%)