



本份試卷第一部分為 20 題單選題，每題 3 分，請依題目順序將答案寫在答案卷上

1. Which of the following will cause an increase in the money multiplier?
  - (A) a reduction in high powered money
  - (B) a decrease in the ratio of reserve to checkable deposits
  - (C) an increase in high powered money
  - (D) an increase in the public's preference for checking deposits as opposed to holding currency
  
2. Which of the following events will most likely cause an increase in money supply?
  - (A) a decrease in the ratio of reserves to deposits
  - (B) a central bank sale of bonds
  - (C) a shift in public preferences away from checkable deposits to currency
  - (D) all of the above
  
3. Which of the following events will cause the interest rate to increase?
  - (A) an increase in income
  - (B) an open market sale of bonds by the central bank
  - (C) an increase in the ratio of reserves to deposits
  - (D) all of the above
  
4. Suppose there is an increase in consumer confidence. Which of the following represents the complete list of variables that *must* increase in response to this increase in consumer confidence?
  - (A) consumption and output
  - (B) consumption, investment and output
  - (C) consumption, output and the interest rate
  - (D) consumption and investment
  
5. The natural level of employment will decrease when which of the following occurs?
  - (A) a reduction in unemployment benefits
  - (B) a reduction in the actual unemployment rate
  - (C) a reduction in the markup of prices over costs
  - (D) none of the above
  
6. For this question, assume that the economy is initially operating at the natural level of output. An increase in minimum wage will cause:
  - (A) a reduction in the real wage in the medium run
  - (B) ambiguous effects on the real wage in the medium run
  - (C) no change in the real wage in the medium run



- (D) an increase in the real wage in the medium run
7. As the proportion of labor contracts that index wages to prices declines, we would expect that:
- (A) nominal wages will become more sensitive to changes in unemployment
  - (B) a reduction in the unemployment rate will now have a smaller effect on inflation
  - (C) the natural rate of unemployment will decrease
  - (D) the natural rate of unemployment will increase
8. Suppose individuals expect that interest rates will fall in the future. Also assume that the central bank wants to prevent any change in current output. Given this goal of the central bank, the central bank should implement a policy in the current period that:
- (A) shifts the IS curve leftward
  - (B) shifts the LM curve upward
  - (C) shifts the IS curve leftward and the LM curve upward
  - (D) shifts the IS curve rightward
9. Suppose there is a fiscal expansion in the current period. This fiscal expansion will tend to cause a smaller increase in current output when:
- (A) an increase in the current interest rate causes expectations of expansionary monetary policy in the future.
  - (B) an increase in the current interest rate causes an increase in expected future interest rates.
  - (C) an increase in current output causes an increase in expected future output.
  - (D) both A and B
10. If neither investment nor consumption depends on the interest rate, then the IS curve is \_\_\_\_\_ and \_\_\_\_\_ policy has no effect on output.
- (A) vertical; monetary
  - (B) horizontal; monetary
  - (C) vertical; fiscal
  - (D) horizontal; fiscal
11. You are a fan of both Jolin and A-Mei. The two superstars will hold concerts at different places on the same day. You are willing to pay 3,000 for a ticket to Jolin's concert at most. The ticket to Jolin's concert is now sold for 2,000. One of your friends gives you a free ticket to A-Mei's concert. You can only go to one concert at the same time. Assume there are no other implicit or explicit costs of going to either concert. What is the opportunity cost of going to A-mei's concert?
- (A) 3,000      (B) 2,000      (C) 1,000      (D) 0



12. Which of the following is NOT a public good?
- (A) A common park
  - (B) A lighthouse
  - (C) The national defense system
  - (D) The fireworks displayed on the top of Taipei 101 building.
13. The nature of Economic Cooperation Framework Agreement (ECFA) signed by Taiwan's Government and Mainland China is
- (A) A free trade agreement
  - (B) A memorandum of understanding (MOU) of financial industry
  - (C) A peace agreement
  - (D) An agreement to facilitate capital and financial investment between Mainland China and Taiwan
14. Which of the following is NOT a source of market failure?
- (A) Monopoly power
  - (B) Information asymmetry between buyer and seller
  - (C) Over-competition
  - (D) Externality
15. Which of the following is NOT a characteristic of competitive market equilibrium?
- (A) Sellers are producers with the lowest production cost
  - (B) Buyers are consumers with the highest willingness to pay
  - (C) There are no other ways to make everyone better.
  - (D) Everyone will agree with the efficient and fairness of the equilibrium.
16. Suppose Taiwan's government adopt luxury tax on items such as expensive cars and private air planes. Which of the following statement is NOT true?
- (A) The trading volume of luxury goods will decrease
  - (B) The price of luxury goods will increase
  - (C) The more elastic the demand of luxury good, the higher are the tax revenues.
  - (D) The more elastic the demand of luxury good, the heavier is the tax burden on the seller.
17. Who are the Nobel Prize winners in Economic Science in the year of 2010?
- (A) Leonid Hurwicz , Eric S. Maskin , and Roger B. Myerson, for having laid the foundations of mechanism design theory
  - (B) Oliver E. Williamson, for his analysis of economic governance, especially the boundaries of



- the firm
- (C) Paul Krugman, for his analysis of trade patterns and location of economic activity
- (D) Peter A. Diamond, Dale T. Mortensen, and Christopher A. Pissarides, for their analysis of markets with search frictions
18. The minimum wage in Taiwan had been increased from \$95 to \$98 dollar per hour in 2010. Which of the following is NOT true after the increase of minimum wage?
- (A) The cost of production will increase and employers may layoff some workers and result in unemployment.
- (B) This policy will not be helpful for those who earn more than \$100 dollar per hour
- (C) The side effect of unemployment will be more severe when the labor demand is inelastic
- (D) Most of the imported labor from the Philippines will also benefit from this policy.
19. Which of the following is a measure of income inequality?
- (A) The Herfindahl index
- (B) The Gini index
- (C) The poverty line
- (D) The Philip curve
20. Which of the following is a potential benefit of a monopolistic competition market from the point of view of social welfare?
- (A) In the long-run equilibrium, firms earn zero profit and there is no deadweight lost
- (B) Sellers provide a variety of goods
- (C) In the short run, sellers set price equal to the marginal cost
- (D) Sellers are not likely to practice price discrimination

本份試卷第二部分為 3 大題計算題，每小題 4 分，未提供計算過程或說明者不計分。

1. (20 分) : Consider the following IS-LM model with prices fixed at  $P=1$  (assuming that we are in the short run):

$$\frac{M^d}{P} = Y - r$$

$$C = 1 + 0.5 \times Y$$

$$I = 1 - 0.5 \times r$$

$$G = \bar{G}$$

$$Y = C + I + G$$

$$\frac{M^s}{P} = \frac{\bar{M}}{P}$$



$$\frac{M^d}{P} \leq \frac{M^s}{P}, \quad \text{with } \frac{M^d}{P} = \frac{M^s}{P} \text{ if } r > 0$$

$$r = i - \pi^e$$

$$\pi^e = 0$$

where  $M^d, M^s$  denotes money demand and money supply, respectively.  $P, Y, r, C, I, G, i, \pi^e$  denote the price level, output, real interest rate, consumption, investment, government spending, nominal interest rate and inflation expectation, respectively.

- (a) Derive the IS curve.
  - (b) Write down the LM curve.
  - (c) What is the equilibrium interest rate in the economy?
  - (d) What is the equilibrium output level in the economy?
  - (e) Suppose that the economy described above is going through a recession and the government is trying to stimulate the economy. When will monetary policy be effective in stimulating the economy?
2. (12 分) Consider the following game: A and B are roommates. They are considering whether to get a flu vaccine. If neither of them gets the vaccine, the probability of getting a flu (denote by  $p$ ) is 0.5 for both of A and B. When only one of them get the vaccine,  $p=0.1$  for the one who get the vaccine and  $p=0.2$  for the one without the vaccination. If both of them get the vaccine,  $p=0.05$  for A and B. Suppose the cost of getting a vaccination (denote by  $C$ ) is 0.2. The payoff is calculated as  $(-p-C)$  for A and B.
- (a) Do players in this game have dominating strategy? (please describe the strategy if your answer is yes)
  - (b) Is there any Nash Equilibrium in this game? (please find out all Nash Equilibriums if your answer is yes)
  - (c) Suppose Government import a safer and cheaper vaccine and therefore  $C$  decreases to 0.1, please find out all Nash Equilibriums if there are any.
3. (8 分) Mr. Wang hires some workers to provide car wash service. The price of car wash is 100, which is determined by the competitive market. The relationship between the number of worker hired and the number of car washed is shown below:
- |          |   |    |    |    |    |    |    |    |    |    |
|----------|---|----|----|----|----|----|----|----|----|----|
| # Worker | 1 | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 |
| # Car    | 2 | 16 | 30 | 43 | 52 | 59 | 66 | 71 | 73 | 74 |
- (a) Suppose the wage is set at 1,100 by the labor market, how many workers will Mr. Wang hire?
  - (b) Suppose the wage decrease to 800, how many workers will Mr. Wang hire?