

※ 考生請注意：本試題不可使用計算機。請於答案卷(卡)作答，於本試題紙上作答者，不予計分。

一、選擇題：每題 3 分，共 60 分

1. The market interest rate in Alpha is 7%, and the market interest rate in Beta is 10%; the inflation rate in Alpha is 3%, and inflation rate in Beta is 8%. Which of the following statements is true?

- A) The real interest rate is higher in Alpha, but the nominal interest rate is higher in Beta.
- B) The real interest rate is higher in Beta, but the nominal interest rate is higher in Alpha.
- C) Both the real and nominal interest rates are higher in Alpha.
- D) Both the real and nominal interest rates are higher in Beta.

2. In a certain economy, the components of planned spending are given by:

$$C = 500 + 0.8(Y - T) - 300r$$

$$I_p = 200 - 400r$$

$$G = 200$$

$$NX = 10$$

$$T = 150$$

Given the information about the economy above, which expression below gives planned aggregate expenditure (PAE)?

- A) $[790 - 700r] + 0.8Y$
- B) $[790 - 700r]$
- C) $[910 - 700r]$
- D) $[910 - 700r] + 0.8Y$

3. In reference to short-term economic fluctuations, the "peak" refers to:

- A) a period in which the economy is growing at a rate significantly above normal.
- B) the high point of economic activity prior to a downturn.
- C) the low point of economic activity prior to a recovery.
- D) a particularly strong and protracted expansion.

4. The state of New Porkswick is one of ten states in the democratic nation of Fatlandia. Each state has ten thousand residents. Although incomes vary, each Fatlandian pays a tax equal to the total cost of all government projects divided by the number of residents in the country. Fatlandia currently has one army base in each of two states and is considering establishing some new ones. An army base adds \$250,000 to a state's local economy each year. The total cost of one army base is estimated to be \$1,000,000 per year. The increased security of having additional army bases equals \$10,000,000 - (3,000,000 * the number of bases) per year.

Suppose the department of defense in Fatlandia decides to add two additional bases for a total of four bases and New Porkswick is one of the states that will get a base. The local economy will benefit by _____ per resident, and each resident's taxes will increase by _____.

- A) \$20; \$25
- B) \$25; \$20
- C) \$250; \$200
- D) \$2.50; \$2

5. The production possibilities curve is:

- A) the boundary that divides all production combinations into efficient and inefficient ones.
- B) a graph illustrating the production combinations society would like to choose.
- C) the boundary that divides all production combinations into attainable ones and unattainable ones.
- D) a graph illustrating supply curves for different combinations of output.

6.

Population 16 and older	1,000,000
Participation Rate	80%
Employed Workers	720,000

Based on the information in the table, what is the unemployment rate?

- A) 7.2%
- B) 8.0%
- C) 10.0%
- D) 28.0%

7. If the elasticity of demand for the latest American Idol CD is 1.4, this means:

- A) few substitutes exist.
- B) a 1% increase in the price leads to a 14% reduction in quantity demanded.
- C) a 10% decrease in the price leads to a 140% increase in quantity demanded.
- D) a 5% increase in the price leads to a 7% decrease in quantity demanded.

8. Suppose that the EPA has proposed strict controls on the amount of sulfur that diesel fuel contains. These controls were designed to fully offset the cost of pollution generated by diesel fuel vehicles. The effect of the regulation is estimated to increase the equilibrium price of a gallon of diesel fuel by 10 cents.

Refer to the information given above. Suppose that demand for diesel fuel is perfectly inelastic and supply has a positive slope. The effect of the regulation will _____ than if demand were not perfectly inelastic.

- A) increase price and quantity by more
- B) Increase price by less and reduce quantity by more
- C) decrease price and quantity by more
- D) increase price by more and reduce quantity by less

9. Saving \$100 will:

- A) increase wealth by \$100.
- B) increase wealth by \$100 only if the \$100 is used to purchase an asset.
- C) increase wealth by \$100 only if the \$100 is used to repay a debt.
- D) decrease wealth by \$100.

10. In Macroland autonomous consumption equals 100, the marginal propensity to consume equals 0.75, net taxes are fixed at 40, planned investment is fixed at 50, government purchases are fixed at 150, and net exports are fixed at 20. Autonomous expenditure equals:

- A) 290.
- B) $320 + 0.25Y$.
- C) 320.
- D) $290 + 0.75Y$.

11. Which of following is NOT true of an equilibrium price?

- A) It is always a fair and just price.
- B) It measures the value of the last unit sold to consumers.
- C) Consumers who are willing to pay the equilibrium price can acquire the good.
- D) Firms who are willing to accept the equilibrium price can sell what they produce.

12. Real GDP per person in both Alpha and Omega is equal to \$2,000. Over the next 100 years, real GDP per person grows at a 1 percent annual rate in Alpha and at a 2 percent annual rate in Omega. After 100 years, real GDP per person in Alpha is _____ smaller than real GDP per person in Omega.

- A) \$2,000
- B) \$9,080
- C) \$5,410
- D) \$11,080

13. Taylor lives in a residential neighborhood that prides itself on well-groomed lawns. Taylor's neighbors find that the collective marginal benefit of someone else's well-groomed lawn is \$10. Taylor, however, dislikes yard work and receives zero net benefit from an unkempt lawn and a net benefit of -\$1 for a well-groomed lawn; the cost of maintaining the lawn is a dollar more than the benefit of having a well-groomed lawn.

Refer to the information given above. The Coase Theorem suggests that:

- A) the rest of the neighborhood will have to tolerate Taylor's lawn.
- B) Taylor could pay the neighbors to stop complaining about the lawn, making everyone in the neighborhood better off.
- C) Taylor's neighbors could pay Taylor to have a well-groomed lawn, making Taylor and the neighbors better off.
- D) Taylor's neighbors could pay Taylor to have a well-groomed lawn, making Taylor better off and the neighbors worse off.

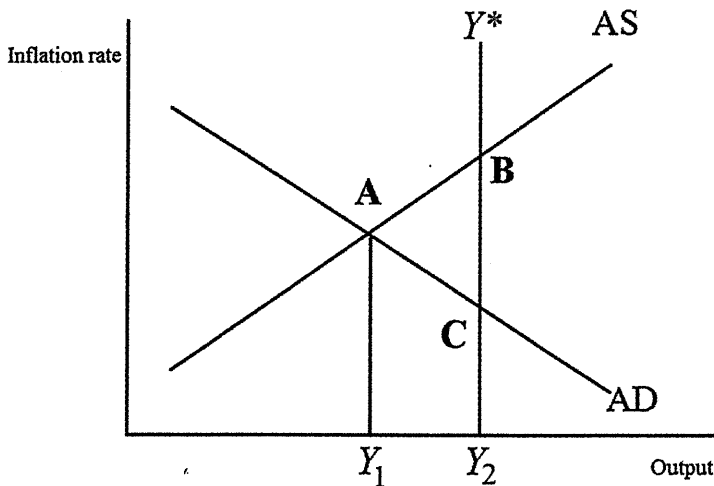
14. In the presence of free riders, the equilibrium allocation of any good will be

- A) more than optimal.
- B) zero.
- C) optimal.
- D) less than optimal.

15. Technological advances shift the demand for labor

- A) to the left.
- B) to the right.
- C) to the left if technology is a complement of labor, but to the right if it is a substitute.
- D) to the right if technology is a complement of labor, but to the left if it is a substitute.

16. Refer to the figure above. Long-run equilibrium in this economy:



- A) could occur if AS shifts downward and to the right.
- B) could occur if AD shifts downward to the left.
- C) will be impossible to achieve.
- D) will occur only if AD shifts upward to the right.

17. The following table provides data for an economy in a certain year.

Consumption expenditures	50
Imports	40
Government purchases of goods and services	20
Construction of new homes and apartments	30
Sales of existing homes and apartments	40
Exports	50
Government payments to retirees	10
Household purchases of durable goods	20
Beginning-of-year inventory	10
End-of-year inventory	20
Business fixed investment	30

Given the data in the table, compute the value of GDP.

- A) 130
- B) 150
- C) 140
- D) 160

18. One difference between the long run and the short run in a perfectly competitive industry is that:

- A) economic profits in the long run are always greater than they are in the short run.
- B) economic profits in the short run are always greater than they are in the long run.
- C) firms necessarily earn zero economic profit in the long run but may earn positive or negative economic profit in the short run.
- D) firms necessarily earn positive economic profit in the long run but may earn positive or negative economic profit in the short run.

19. Fred purchases a bond, newly issued by the Big Time Corporation, for \$10,000. The bond pays \$400 to its holder at the end of the first, second, and third years and pays \$10,400 upon its maturity at the end of four years. The principal amount of this bond is ____, the coupon rate is ____, and the term of this bond is ____.

- A) \$400; 40%; four years
- B) \$10,400; 4%; four years
- C) \$10,000; \$400; 4%
- D) \$10,000; 4%; four years

20. Each of the following would decrease the demand for U.S. dollars, shifting the demand curve for dollars to the left, EXCEPT:

- A) a decreased preference for U.S.-made goods.
- B) a decrease in real GDP abroad.
- C) a decrease in the real interest rate on U.S. assets.
- D) a depreciation of foreign currencies relative to the U.S. dollar.

簡答題：請繪示圖形，並簡要回答，每題 10 分

- 二、請以供需均衡分析解釋在數位經濟時代下，網路外部效應(Network externality)的意義。
- 三、在貿易保護的政策下，請以關稅為例，說明為何保護貿易會導致經濟效率降低。
- 四、Give an example of a favorable shock to aggregate supply. Use the model of aggregate demand and aggregate supply to explain the effects of such a shock. How does it affect the Phillips curve?
- 五、If the economy is to remain in long-run equilibrium, what must happen to the price level, the wage level, and the level of real GDP when the following events occur?
 - (1) An increase in government-financed highway construction.
 - (2) An increase in productivity caused by more use of computers (while the money supply is constant).