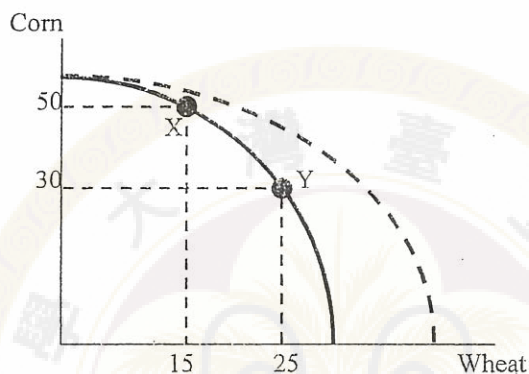選擇題，共 25 題，每題 4 分。請依題號順序於「選擇題作答區」內作答。

※ 請注意：每題「至多」有兩個正確答案，答案必須全對才給分。

1. The following figure shows a farmer Jerry's production possibility frontier (PPF), who produces only two goods: corn and wheat. The current production plan is at point X on the PPF. Suppose that Jerry plans to reallocate the resources and move from X to Y.
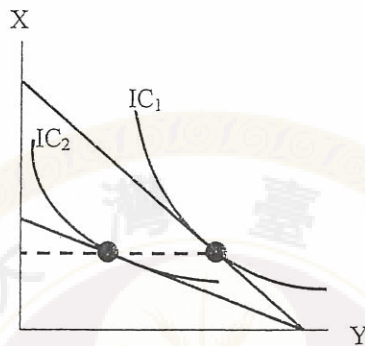

   Which of the following statements is (are) correct?
   (A) Jerry has an absolute advantage in producing corn.
   (B) Y is an efficient and feasible plan.
   (C) The opportunity cost of producing corn increases when Jerry moves from X to Y.
   (D) The dashed line represents the PPF next year. A possible explanation for this change is that there will be an increase in the labor force that can be used in both goods.

Questions 2 and 3: Consider a perfectly competitive market. The market demand is given by $Q_D = 40 - 2P$. Assume that the industry is composed of many homogenous firms. The total cost function for each individual firm is given by $TC = 9 + 2Q + Q^2$.

2. Suppose that the market equilibrium price is $6 in the short run. Then in the short run, which of the following statements is (are) correct?
   (A) A profit-maximizing firm produces 2 units of the product.
   (B) The equilibrium quantity in the market is 20 units.
   (C) Each firm earns $5.
   (D) There are 14 firms in the market.

3. In the long run, which of the following statements is (are) correct?
   (A) Each firm produces 1 unit of the product.
   (B) The equilibrium price is $8.

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(C) Compared to the case in the short run, each firm who stays in the market earns more in the long run.

(D) Compared to the case in the short run, there are more firms in the market.

4. The following figure shows John's preference over two goods X and Y. Now one of the prices increases.

Which of the following statements is (are) correct?
(A) The demand for X is perfectly inelastic.
(B) The demand for Y is perfectly elastic.
(C) X is an inferior good.
(D) There is no substitution effect.

Questions 5 and 6: Let the market demand for cigarettes be $Q_D = 100 - 2P$, and the market supply be $Q_S = P - 20$. Now the government decides to implement a health tax of \$3 per unit which is imposed on the consumers who buy cigarettes.

5. Which of the following statements is (are) correct?
   (A) After the tax, the price that each consumer actually pays is \$43.
   (B) After the tax, the price that each producer actually receives is \$38.
   (C) After the tax, the equilibrium quantity is 20 units.
   (D) The tax incidence for each consumer is \$3 per unit.

6. The government wants to evaluate the effect of this tax. Which of the following statements is (are) correct?
   (A) The total loss in consumer surplus is \$40.
   (B) The total loss in producer surplus is \$60.
   (C) The tax revenue is \$54.
   (D) The deadweight loss is \$6.

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7. Sarah plans to choose consumption in each of the two periods, C_1 and C_2, given her anticipated income in these two periods, Y_1 and Y_2. The interest rate was $r = 2\%$ before, and now it changes to $r = 4\%$.

Which of the following statements is (are) correct?

(A) If Sarah was a borrower, then she borrows less than before.

(B) If Sarah was a borrower, then she may be a saver now.

(C) If Sarah was a saver, then she continues being a saver.

(D) Sarah's utility is higher than before.

8. Tom only consumes two goods, X and Y. His preference can be represented by the utility function, $U(X, Y) = \min\{X, 2Y\}$. Suppose the price of X is \$2 and the price of Y is \$1. He has \$40 in his pocket.

Which of the following statements is (are) correct?

(A) Because Y is cheaper, Tom will spend all his money on Y.

(B) Tom will buy 20 units of X and 10 units of Y.

(C) If the price of Y increases from \$1 to \$2, holding other things equal, Tom will buy more units of X because it is relatively cheaper than before.

(D) If Tom's money is doubled, holding other things equal, the consumption of each good is also doubled.

9. The following figure shows the isoquants for producing a computer, where L (labor) and K (capital) are two required inputs.
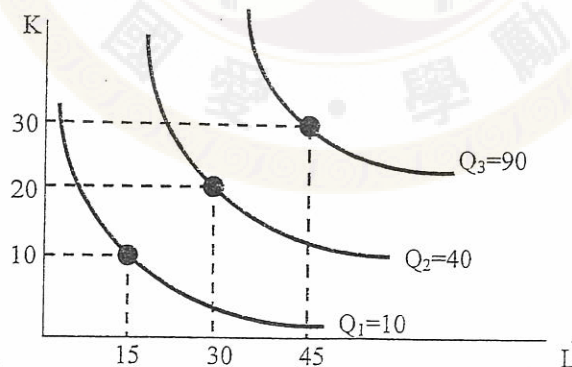
Which of the following statements is (are) correct?

(A) This technology exhibits decreasing returns to scale.

(B) The production function that represents this technology can be $Q = A \cdot (LK)$, where A is some constant.

(C) The marginal productivity of labor decreases as labor increases.

(D) Labor and capital are prefect substitutes.

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10. Microsoft already has a software product sold in the market. Suppose that Google wants to enter the market and advertises a new product. If they both advertise, they each will obtain 4 million customers. If only Goggle advertises, then Google obtains 5 million customers and Microsoft has 2 million customers. If Google does not advertise, then no matter whether Microsoft advertises or not, Google has no customer, while Microsoft keeps its original 5 million customers (Note: the advertising cost is neglected here).

Which of the following is the equilibrium outcome?

(A) They both advertise.

(B) Only Google advertises.

(C) Only Microsoft advertises.

(D) None of them advertises.

11. There are two consumers in a market, Eric and Paul. Eric's demand function for the good is given by $P = 11 - Q_D$, while Paul's demand function for the good is given by $P = 6 - 0.5 Q_D$. Suppose the market supply is $P = 1 + 0.5 Q_S$.

Which of the following statements is (are) correct?

(A) The equilibrium price is \$5.

(B) The equilibrium quantity is 8 units.

(C) In equilibrium, Eric consumes $\frac{20}{3}$ units.

(D) In equilibrium, Paul does not consume the good.

12. Suppose a monopoly faces a demand function $P = 10 - Q_D$. The total cost function is $TC = 10 + 2Q$.

Which of the following statements is (are) correct?

(A) If there is no regulation, the firm will set the price at \$5.

(B) The price that maximizes the social welfare is \$2.

(C) If the government wants the firm to choose the most efficient output level, it needs to subsidize the firm with \$5.

(D) If the government uses the average cost pricing regulation, then the firm is required to set the price lower than \$5.

13. A monopolist faces a market demand given by $P = 100 - 2Q_D$. The total cost function is given by $TC = \frac{1}{2}Q^2$.

Which of the following statements is (are) correct?

(A) The monopolist produces 20 units of the product.

(B) The equilibrium price is $\$\frac{100}{3}$.

(C) The monopolist earns a profit of \$200.

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(D) The deadweight loss caused by the monopoly is $1000.

14. What are the economic growth rates for Taiwan according to the Directorate-General of Budget, Accounting and Statistics, Executive Yuan:

(A) year 2001: 1.10%, year 2009: -1.93%.

(B) 2001: 0.65%, 2009: -1.53%.

(C) 2001: -1.10%, 2009: -1.53%.

(D) 2001: -1.65%, 2009: -1.93%.

15. Applying the theory of purchasing-power parity for several countries and using the price of Big Macs to predict the change of exchange rates. When the price of a Big Mac was 3.5 US dollar $ in the USA, and 3,000 won in South Korea, 300 yen in Japan, 3.0 euros in the Euro area, 3.9 C$ in Canada at the same time. The actual exchange rate per $ was 950 won/$, 95 yen/$, 0.75 euro/$ and 1.05 C$/$, respectively. Which is (are) correct in the following:

(A) Korean won was undervalued by 10%.

(B) Japanese yen was overvalued by 11%.

(C) The euro was overvalued by 15%.

(D) Canadian C$ was undervalued by 6%.

16. If the production function has the increasing-returns-to-scale property, and Y denotes output, L is labor, K is physical capital, H is human capital, N is natural resources, then the specific form of the production function is

(A) $Y = 4\sqrt{L^3 K^4 HN}$.

(B) $Y = 2(LKHN)^{1/4}$.

(C) $Y = 3\ L^{\frac{1}{4}} K^{\frac{1}{5}} H^{\frac{1}{6}} N^{\frac{1}{3}}$.

(D) $Y = 2\ L^{\frac{1}{2}} K^{\frac{1}{4}} H^{\frac{1}{8}} N^{\frac{1}{8}}$.

17. During a certain year, the consumer price index increased from 140 to 148.4 and the purchasing power of Miss Chen's bank account increased by 2.5%. For thus year,

(A) the nominal interest rate was 6%.

(B) the nominal interest rate was 8.5%.

(C) the inflation rate was 2.5%.

(D) the inflation rate was 6%.

18. If at a given real interest rate desired national saving would be $60 billion, domestic investment would be $50 billion, and net capital outflow would be $25 billion, then at that real interest rate in the loanable funds market there would be a

(A) surplus. The real interest rate would rise.

(B) surplus. The real interest rate would fall.

(C) shortage. The real interest rate would rise.

(D) shortage. The interest rate would fall.

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19.In 2008 Country X had 1,000 workers who worked an average of 8 hours and produced 16,000 units of cars. In 2009 it had 1,200 workers who worked an average of 8 hours and produced 16,800 units of cars. Country X's productivity was

(A) higher in 2009 than in 2008. A possible source of this change in productivity is a change in the size of the capital stock.

(B) higher in 2009 than in 2008. A change in the size of the capital stock does not affect productivity.

(C) lower in 2009 than in 2008. A change in the size of the capital stock does not affect productivity.

(D) lower in 2009 than in 2008. A possible source of this change in productivity is a change in the size of the capital stock.

20.Suppose the economy is in long-run equilibrium. If the monthly minimum wage increases from 18,000NT$ to 25,000NT$, and there is an increase in pessimism about future business conditions, then in the short-run, real GDP will

(A) rise and the price level might change or not. In the long-run, the price level might change or not but real GDP will be unaffected.

(B) fall and the price level might change or not. In the long-run, the price level might change or not but real GDP will be unaffected.

(C) rise and the price level might change or not. In the long-run, the price level might change or not but real GDP will be lower.

(D) fall and the price level might change or not. In the long-run, the price level might change or not but real GDP will be lower.

21.Suppose the economy is in long-run equilibrium initially, and aggregate demand shifts leftward by $60 billion. The government wants to pursue expansionary fiscal policy to avoid a recession. If the crowding-out effect is always half as strong as the multiplier effect, and if the marginal propensity to consume equals to 0.8, then by how much do government purchases have to increase in order to offset the $60 billion leftward shift?

(A) by $12 billion.　　(B) by $24 billion.　　(C) by $30 billion.　　(D) by $60 billion.

22.Bank Taida reports that the bank has $10 billion in excess reserves. In addition, the bank has $500 billion in deposits and $410 billion in loans. Given this information we can find the reserve requirement must be

(A) 80/410.　　(B)100/410.　　(C) 80/500.　　(D) 100/500.

23.Suppose Taiwan imposes an import quota on lumber. Other things being equal, the quota restriction makes the real exchange rate of the NT dollar

(A) appreciate.

(B) the real interest rate in Taiwan does not change.

(C) depreciate.

(D) the real interest rate in Taiwan increase.

24. According to official estimation Country Y has a sacrifice ratio of 5. Policy-makers in Country Y are thinking of lowering the inflation rate from 12% to 5%. What is the amount output that will be lost for Country Y to reduce its inflation rate?
(A) It will cost 25% of annual output to reach the new inflation target.
(B) It will cost 30% of annual output to reach the new inflation target.
(C) It will cost 60% of annual output to reach the new inflation target.
(D) It will cost 35% of annual output to reach the new inflation target.

25. Suppose that in fiscal year 2009 Miss Lin earned a nominal interest rate of 5%. During the time she held these funds inflation was 1.5%, and computed that she made a real after-tax interest rate of 2.5%. What was her tax rate?
(A) 15%.　　　(B) 20%.　　　(C) 25%.　　　(D) 33.3%%.

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