

一. 單選題，第 1-10 題，每題 4 分；第 11, 12 題，每題 5 分；共 50 分。

※ 注意：請於答案卷內之「選擇題作答區」依序作答。

1. According to Directorate-General of Budget, Accounting and Statistics, Executive Yuan of Taiwan, the unemployment rate in May, 2014 is:  
(A) 3.05%;  
(B) 3.35%;  
(C) 3.85%;  
(D) 4.45%;  
(E) 5.05%.
  
2. Which of the following is an explanation for the existence of frictional unemployment?  
(A) unions;  
(B) efficiency wages;  
(C) minimum-wage laws;  
(D) job search;  
(E) collective bargaining.
  
3. Based on the same base year, the price index was 120 in the first year, 130 in the second year, 138 in the third year and 135 in the fourth year. Which of the following statements is correct?  
(A) the price level was higher in the second than in the first year, and it was higher in the third year than in the second year;  
(B) the inflation rate was positive between the first and second years, and it was positive between the second and third years;  
(C) the inflation rate was negative between the third and fourth years;  
(D) the inflation rate was lower between the second and third years than it was between the first and second years;  
(E) all of the above are correct.
  
4. If purchasing power parity holds, when a country's central bank increases the money supply, its  
(A) price level rises and its currency appreciates relative to other currencies in the world;  
(B) price level rises and its currency depreciates relative to other currencies in the

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- world;
- (C) price level falls and its currency appreciates relative to other currencies in the world;
- (D) price level falls and its currency depreciates relative to other currencies in the world;
- (E) price level falls and there is no change to its currency relative to other currencies in the world.
5. Other things the same, an increase in the Taiwanese real interest rate induces:
- (A) Taiwanese to buy more foreign assets, which reduces Taiwanese net capital outflows;
- (B) Taiwanese to buy more foreign assets, which increases Taiwanese net capital outflows;
- (C) foreigners to buy more Taiwanese assets, which reduces Taiwanese net capital outflows;
- (D) foreigners to buy more Taiwanese assets, which increases Taiwanese net capital outflows;
- (E) no change on Taiwanese net capital outflows.
6. Reserve requirements are regulations concerning
- (A) the interest rate at which banks can borrow from the central bank;
- (B) the amount banks must hold against deposits;
- (C) the amount banks are allowed to borrow from the central bank;
- (D) the number and type of loans banks make;
- (E) the interest rate banks need to pay for deposits.
7. Assume that the expected inflation rate equals the actual inflation rate. If the nominal rate of interest equals 5% and the annual growth rate of money supply equals 3%, the annual growth rate of velocity of circulation is 2% and that the annual growth rate of real GDP is 1%, then the expected real rate of interest equals
- (A) 5%
- (B) 4%
- (C) 3%
- (D) 2%
- (E) 1%
8. Suppose John's income increases by 10 dollars today and he wants to smooth his

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lifetime consumptions, what will happen to his consumption and saving today?

- (A) both today's consumption and saving will increase and the increase in today's consumption will be less than 10 dollars;
- (B) both today's consumption and saving will decrease and the reduction in today's consumption will be less than 10 dollars;
- (C) today's consumption will increase less than 10 dollars and today's saving will decrease;
- (D) today's consumption will decrease and today's savings will increase more than 10 dollars;
- (E) today's consumption will increase more than 10 dollars and today's saving will decrease;

9. Consider the Solow growth model with the production function:

$Y_t = AK_t^\alpha (H_t L_t)^{1-\alpha}$  where  $Y_t$  is the output,  $A$  is total factor productivity (TFP),

$K_t$  is physical capital,  $L_t$  is labor with  $L_{t+1} = (1+n)L_t$ ,  $n > 0$  and  $H_t$  is human capital with  $H_{t+1} = (1+g)H_t$ ,  $g > 0$ . Note that  $(H_t L_t)$  represents the effective labor. Assume that human capital does not depreciate, but physical capital depreciates at the rate of  $\delta$ . With the saving rate equal to  $s$ , what is the steady-state value of capital per effective labor?

- (A)  $\left(\frac{sA}{n+g}\right)^{\frac{1}{\alpha}}$ ;
- (B)  $\left(\frac{sA}{n+g}\right)^{\frac{1}{1-\alpha}}$ ;
- (C)  $\left(\frac{sA}{n}\right)^{\frac{1}{\alpha}}$ ;
- (D)  $\left(\frac{sA}{n+g+\delta}\right)^{\frac{1}{1-\alpha}}$ ;
- (E)  $\left(\frac{sA}{n+g+\delta}\right)^{\frac{1}{\alpha}}$ .

10. Following question 9, what is the growth rate of output per labor at the steady state?

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- (A)  $s$ ;
- (B)  $g$ ;
- (C)  $n$ ;
- (D)  $g+n$ ;
- (E)  $s+n$ .

11. Following question 9, what is the golden rule saving rate?

- (A)  $\alpha$ ;
- (B)  $\delta$ ;
- (C)  $g$ ;
- (D)  $n$ ;
- (E)  $\left(\frac{A}{g}\right)^{\frac{1}{1-\alpha}}$ .

12. Using the production function in question 9, if both output and physical capital grow at the same rate of  $\phi$ , then the growth rate of TFP equals

- (A)  $\alpha(\phi - g)$
- (B)  $(1 - \alpha)\phi$
- (C)  $(1 - \alpha)\phi gn$
- (D)  $\alpha\phi gn$
- (E)  $(1 - \alpha)(\phi - g - n)$

二：簡答計算題(共 50 分)。

※ 注意：請於答案卷內之「非選擇題作答區」標明題號依序作答。

1. (10 分)請以經濟學理論簡要作圖解釋以下現象：
  - (1) (5 分)夜市的帝王食補薑母鴨在暑假公休兩個月。
  - (2) (5 分)見人說人話，見鬼說鬼話。
2. (10 分)簡要解釋並舉例何謂道德風險？何謂與逆選擇？
3. (5 分)陳老師說：「不論 SK2 的價格為何，我每年只會花一萬元購買 SK2」。請問陳老師對 SK2 的需求彈性為何(需附算式說明)？
4. (5 分)「政治認同」此一商品為一雙佔市場，由兩家分別叫連 S 與柯 P 的公司生產。市場的需求函數為  $P=20-Q$ ，兩家公司生產一單位政治認同的邊際成本皆為 2。若兩家廠商採 Cournot competition，請問均衡時兩公司的產量各為何？
5. (10 分)某甲的效用函數為  $U(x,y)=\sqrt{xy}$ ，所得為 10 元，市場  $x$  與  $y$  的價格皆為每單位 1 元。
  - (1) (5 分)寫下甲所面臨的極大化問題，並求出最適消費選擇時的  $x$  與  $y$ 。
  - (2) (5 分)現若某甲想要以最小的支出達到(1)所得到的最大效用值，請問此時

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她所面臨的最適化問題是什麼？在此均衡狀況下，甲要支出多少錢？ $x$  與  $y$  的最適消費各是多少？

6. (10 分) 三腥跟有答兩人因為在菜市場哄抬鹹酥雞的價格被司法起訴。隔離偵訊時，檢方提出以下條件：若兩人皆不認罪，則只能依「公開場合亮菜刀管制條例」罰款一千元。若兩人皆認罪，則各罰七千元。但若一人坦白，另一人堅不認罪，則坦白者轉為吹哨者免罰，抗拒者罰 2 萬元。
- (1)(5 分) 請寫出此一賽局的 Normal form，並求解其 Nash equilibrium。
- (2)(5 分) 若檢方先跟三腥談條件，談定之後再來對付有答。請寫下此一賽局的 Extensive form 並求解。

試題隨卷繳回