

嶺東技術學院
九十一學年度碩士班入學招生考試試題
經濟學

一、The Cobb-Douglas production function is given by $f(x_1, x_2) = Ax_1^a x_2^b$. It turns out that the type of returns to scale of this function will depend on the magnitude of $a+b$. What values of $a+b$ will be associated with the different kinds of returns to scale? (25%)

二、John Hicks 與 Eugen Slutsky 對於替代效果(substitution effect)與所得效果(income effect)之看法有何不同？據此不同觀點所推導出之需求曲線又有何不同？請詳細繪圖說明。(25%)

三、Consider the following macroeconomics model (20%)

$$Y = C(Y - T) + I(R) + G \cdots (1)$$

$$\frac{M}{P} = L(Y, R) \cdots (2)$$

Where Y =GDP ; C =Consumption ; T =Tax ; I =Investment ; R =Interest Rate ;

G =Government expenditures ; M/P =real money supply ;

$L(Y, R)$ = real money demand.

1、Interpret the economic meanings of all the above equation ? (5%)

2、Describe the equilibrium of the model on the (Y, R) plane ? (5%)

3、Please provide mathematical $\frac{\partial Y}{\partial M} \Big|_{(1)+(2)} = ?$

Explain carefully Keynes effect ? (5%)

4、Define the Walras law ? Describe the equilibrium of Loanable-funds market ? (5%)

四、時事題 (10%)

(一) 行政院游院長鼓勵宴會請客一桌不得超出新台幣 5,000 元, 亦即游院長鼓勵以節約幫助台灣 GDP 的成長, 試評論之? (5%)

(二) 請問電影《美麗境界; A Beautiful Mind》1994 年諾貝爾經濟學得主是誰? 並簡述其在經濟學的貢獻? (5%)

五、Using Pontryagin's maximum principle, solve the following optimal growth problem: (10%)

$$U_0 = \int_0^{\infty} u(c_t) \exp[-\theta t] dt$$

such that

$$\dot{k}_t = f(k_t) - c_t - nk_t$$

where U = The family's welfare function is discounted sum of instantaneous utility function; $u(c_t)$ is known as the instantaneous utility function; θ is the rate of time preference, which is assumed to be strictly positive; The population N_t grows at rate n ; k is the capital-labor ratio and $f(k_t) \equiv F(K_t/N_t, 1)$.

1. What is the Hamiltonian? (5%)
2. Calculate the first-order necessary conditions by taking the partial derivatives of the Hamiltonian? Please provide Graph the phase diagram. (5%)

六、選答題 (二選一) (15%)

(一) 美國 P.Krugman (MIT 教授) 指出日本目前所遭遇的問題基本上是因為落入流動性陷阱 (Liquidity Trap) 的緣故; 試問

1. 何謂流動性陷阱? 流動性陷阱的症狀有那些? (5%)
2. 是舉出兩個可能方法可以用來解決流動性陷阱問題? 並說明其效果及優缺點? (10%)

(二) 中央銀行的貨幣政策指標有兩種, 以貨幣數量為指標, 或以利率為指標。

1. 請問目前台灣是以哪一個作為貨幣政策的指標? (5%)
2. 如果現在因為金融環境快速的變動, 使得中央銀行對台灣的貨幣需求愈來愈難以掌控。假定中央銀行希望能維持國內產出的穩定, 請問這時中央銀行的貨幣政策指標應否改變? 為什麼? (10%)

(試題結束)