所別：財務金融學系碩士班 甲組(一般生)　科目：經濟分析　共 __1__ 頁 第 __1__ 頁
　　　財務金融學系碩士班 乙組(一般生)

本科考試禁用計算器　　　　　　　　　　　　　　　　＊請在試卷答案卷（卡）內作答

I. 問答題 (請依題序作答，未列算式、推理過程或適當說明者，不予計分)

1. 何謂景氣領先指標 (leading indicator)，請解釋其定義。請列出5項具有景氣領先指標之性質的總體經濟變數，並解釋其與未來經濟景氣之關係。(12分)

2. 如果實質利率下降，對下列經濟變數會產生什麼影響？請解釋。
a. 企業固定投資 (business fixed investment) (5分)
b. 存貨投資 (inventory investment) (5分)

II. 是非不定題 (每題7分，共28分)
注意：僅回答是、非、或不一定，而未解釋理由者，不予計分

1. 擴張性財政政策會造成產出水準、消費、與投資在短期有正面的效果，但是在長期則無影響。

2. 在景氣波動的過程中時，我們預期1%的GDP變動，將會對應同樣1%的消費與投資變動。

3. 假設除了A國的人口成長率高於B國的人口成長率，這兩個國家的其他條件都相同。根據Solow成長模型，在恆定狀態 (steady state) 之下，A國的每勞工產出水準 (output per worker) 會高於B國。

4. 考慮一個兩期模型 (two-period model)，假設 y_1 與 y_2 分別為某個消費者在第1期與第2期的原賦 (endowment)，c_1 與 c_2 分別為其在第1期與第2期的消費(consumption)，而且 $c_1 < y_1$。如果在第1期時，實質利率上升，將導致第1期的商品對第2期的商品之相對價格上升，因此 c_1 將降低。

III. 問答題 (請依題序作答，未列算式、推理過程或適當說明者，不予計分)

1. Suppose Dr. Fruit has preferences for apple (A) and banana (B) given by the utility function, $U(A,B) = A^{0.5}B^{0.5}$.
   a. Derive the marginal rate of substitution of A for B (MRS). (6 分)
   b. How much will Dr. Fruit spend on apple as a fraction of income? (8 分)

2. Suppose that a person with $100,000 to invest believes that bonds will have a real return of 4% over the next year with certainty. For stocks, however, he or she believes that there is a 50% chance that stocks will yield 16%, but also a 50% chance they will yield -2%. Hence stocks are viewed as being much riskier than bonds. With the utility function, $U(I) = \dfrac{-1}{I}$, will this person invest the $100,000 in stocks or bonds? (assume that diversified investment is not allowed) (8 分)

3. Consider the Stackelberg model in which firms choose quantities, with firm A moving first, and then firm B. The market demand is given by Q = 120 − P. Production is costless for both firms, but firm B has a fixed cost of entry of $401.
   a. How much would A have to produce to deter B's entry? (8 分)
   b. Would it be worthwhile for A to deter B's entry? (8 分)

4. Cognac brandy increases in value as it ages, at least up to 20 years. For any period of time (in years), t, the value of a barrel is given by $V = 100t - 6t^2$.
   c. At what value of t is the barrel of Cognac most valuable? (6 分)
   d. If the real interest rate is 5%, when should this distiller bottle the Cognac for immediate sale? (6分)