## 一、 是非題(請在答案卷指定作答區用O.X作答)(20%)

1. 如果預期本國某屆總統大選結果會帶來國內股市極端不確定性，股市可能因而大波動，則投資人可以在選前針對指數選擇權採取 long a call 加 long a put 策略來謀利。
2. 當某股票選擇權買權(call)是價平(at the money)時，其權利金價格剛好等於此股票市價。
3. 當債券投資人的投資期間比所投資的債券到期日短時，會面臨價格風險。
4. 只要投資人的投資期間等於所投資的附息債券到期日(maturity)，就不會有利率風險(interest rate risk)。
5. 開放型基金以基金之市價作為買賣價格的依據，可能會有溢價(premium)或折價(discount)的情況。
6. 當股票市價低於履約價格時，該股票買權(call)就稱為「價內」。
7. 當利率有上升的趨勢時，應該購買較長期的債券。
8. AAA 等級的債券比起 BBB 等級的債券的發行殖利率要來得高。
9. 股票的基本分析重視股價是否被錯估，技術分析則重視未來股價是否會漲或會跌，比較不關心股價是否偏離基本價值。
10. 在未考慮通貨膨脹前，市場的實質利率會受到投資機會多寡的影響，也就是說，當時投資機會如果越多，市場的實質利率就會更低。

## 二、 選擇題(請在答案卷指定作答區用 ABCD 作答) (20%)

1. 某風險性資產的風險貼水是 8.8%，市場風險貼水是 8%，則該資產的 $\beta$ 值是 (A)1.2(B)0.09(C)1.1(D)以上皆非。
2. 如果投資人一定要建立風險性資產的投資部位，則市場風險是一種 (A) 可以完全分散的風險 (B)非系統風險 (C)無法完全規避的風險 (D)以上皆非。
3. 台積電的買權(Call)市價如果是 5 元，執行價是 45 元，股票市價是 48 元，則其買權隱含時間貼水(time premium)：(A)5(B)3(C)0(D)2 元。
4. 當投資人持有股票金額頗鉅，又面臨政治情勢不安時，如果景氣沒太大變化，下列哪一種避險方式對該投資人最有利：(A)賣掉股票(B)放空期貨(C)如果避險標的物有賣權，儘可能購入賣權(D) 如果避險標的物有買權，儘可能購入買權。
5. 寶來證券公司發行價平認購權證 10000 單位，標的物為台積電。為了避險，寶來證券應該至少(A)賣出台積電 10000 單位(B) 賣出台積電 5000 單位(C) 買進台積電 5000 單位(D) 買進台積電 10000 單位。

接背面

6. 應用 Riding the yield curve 投資債券策略，應符合下列何種情況?
(A) yield curve 應該是持平(B)term structure 在投資期間不會改變(C) yield curve 在投資期間天天變 (D) 以上皆非。

7. 下列敘述何者正確?
(a)標的物價格波動越厲害，則其選擇權(不管是買權或賣權)價值越高。
(b)當選擇權是嚴重價外時，其 delta 值是趨近於 1。
(A)a、b 都正確(B) a、b 都不正確(C) 只 a 正確(D)只 b 正確。

8. 有位交易員正在考慮 short 某期貨合約的買權。當該期貨合約市價每單位為 19 美元時，執行價格 18 美元的該期貨買權權利金為 1.80 美元，Delta 值為+0.6。當期貨的市場價格上漲至 20 美元，即漲了 1 美元時，買權權利金也會跟著上漲 (A)1.3 (B)0.5(C)1.8(D)0.6 美元。

9.「一鳥在手」的股利理論是指投資人對未來股利(A) 較偏好近期的現金股利，越多越好(B) 較偏好越遠期的現金股利(C) 較偏好股票股利 (D) 無特定偏好。

10. 根據先進國家(如美國)文獻，當證券市場不是那麼完美，公司獲利需課徵公司所得稅時，上市公司如宣佈發行新公司債，常造成其股價(A)鉅幅下跌(B)微幅下跌(C)不受影響(D)上漲。

※ 注意：請於試卷上「非選擇題作答區」依序作答，並應註明作答之大題及小題題號。

**三、計算題：(60%)**

Question 1

The Perry Company has $2,625,000 in current assets and $1,050,000 in current liabilities. Its initial inventory level is $750,000, and it will raise funds as additional notes payable and use them to increase inventory. How much can Perry's short-term debt (notes payable) increase without pushing its current ratio below 2.0? What will be the firm's quick ratio after Perry has raised the maximum amount of short-term funds? (10%)

Question 2

Sweetwater Company has 6,500 shares of stock outstanding. The market value of Sweetwater's assets is $1,050,000. The market value of outstanding debt is $300,000. Some time ago, Sweetwater issued 100 warrants that are now about to expire. Each warrant gives the owner the right to purchase 10 shares of stock at a price of $75 per share.

Required:

(a) If all of the warrants are exercised, what is the price per share of Sweetwater stock? What is the gain from exercising one warrant? (10%)

(b) Suppose that a call option to buy 10 shares of stock in a company comparable to Sweetwater has an exercise price of $75. The comparable company, Sour Pete, is identical to Sweetwater, except that it has no warrants outstanding. What is the price per share of this firm's stock? What is the gain from exercising this call option? (10%)

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Question 3

Suppose that securities are priced on the basis of the Capital Asset Pricing Model. You have forecast the correlation coefficient between the rate of return on Stock X and the market portfolio at 0.8. Your forecast of the standard deviations of the rates of return are 0.4 for Stock X, and 0.2 for the market portfolio.

Required:

(a) Find the covariance between the rate of return on Stock X and the market portfolio. (5%)

(b) Find the beta for Stock X. (5%)

Question 4

Consider the following project data:

- A $450 feasibility study will be conducted at t = 0.
- If the study indicates potential, the firm will spend $1,000 at t = 1 to build a prototype. The best estimate now is that there is an 80 percent chance that the study will indicate potential, and a 20 percent chance that it will not. If the study does not indicate potential, the project will be abandoned with zero salvage value.
- If reaction to the prototype is good, the firm will spend $10,000 to build a production plant at t = 2. The best estimate now is that there is a 60 percent chance that the reaction to the prototype will be good, and a 40 percent chance that it will be poor. If the reaction to the prototype is poor, the project will be dropped with zero salvage value.
- If the plant is built, there is a 50 percent chance of a t = 3 net cash flow of $16,000 and a 50 percent chance of a t = 3 net cash flow of $13,000.

Assume that one year goes by between decisions. The project's cost of capital is 10 percent. What is the project's expected net present value? (20%)