

科目	財務管理	適用 系別	財金系三年級	時間	80分鐘
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※ 請務必在答案卷作答區內作答 ※ 共 1 頁第 1 頁

Part I: 填充題: (50分) (第1~2題: 其中每小題5分)

請在答案卷內整齊列出填充題之答案,(不需列算式):

計算時請精確至小數點以下第3位(例如: \$5.123, 7.123%)

1. Suppose you just borrowed \$500,000 from a bank. The bank loan is for a period of five years at an annual interest rate of 10% compounded annually. It requires that you make five equal end-of-year payments to fully amortize the loan.
- (a) How much would you have to pay each year to payoff the loan? \$_____.
- (b) How much would you still owe the bank at the end of Year 2 (What would be the remaining balance of your loan account at the end of Year 2? \$_____.
- (c) How much is the interest payment in Year 2? \$_____.
- (d) How much is the total interest payment for the five-year loan? \$_____.
- $PVIF_{10\%, 1}=0.9091$, $PVIF_{10\%, 2}=0.8264$, $PVIF_{10\%, 3}=0.7513$, $PVIF_{10\%, 4}=0.6830$,
 $PVIF_{10\%, 5}=0.6209$, $PVIFA_{10\%, 1}=0.9091$, $PVIFA_{10\%, 2}=1.7355$, $PVIFA_{10\%, 3}=2.4869$,
 $PVIFA_{10\%, 4}=3.1699$, $PVIFA_{10\%, 5}=3.7908$

2.

State of Economy	Recession	Normal year	Boom
Probability	0.20	0.50	0.30
Return on Stock X	-20%	18%	50%
Return on Stock Y	-15%	20%	10%

- (a) What is the expected rate of return for Stock X? _____%
- (b) What is the standard deviation of returns for Stock Y? _____%
- (c) What is the correlation coefficient between the returns on Securities X and Y? _____.
- (d) What is the standard deviation of returns for a portfolio consisting of 30% invested in Stock X and 70% in Stock Y? _____%
- (e) Assume the correlation coefficient between the returns on Stock X and market portfolio is 0.8, and the correlation coefficient between the returns on Stock Y and market portfolio is 0.6. The standard deviation of returns for the market portfolio is 15%. What is the systematic risk (beta) of stock Y? _____.
- (f) What is the systematic risk (beta) for the portfolio consisting of 30% invested in Stock X and 70% in Stock Y? _____.

Part II: 解釋名詞: (50分) (每題5分: 字譯並解釋)

請將下列財金術語翻譯成中文並加上簡明扼要的解釋

- Security Market Line (SML)
- Agency problems
- Market Risks
- Time Values of Options
- Arbitrage Pricing Theory (APT)
- Bond Convexity
- Hedge Funds
- Capital Budgeting
- Interest Rate Parity (IRP)
- Leverage Buyout (LBO)