Financial Management
Warsaw School of Economics

Exam, 24 January, 2001

STUDENT'S NAME:

For each of the questions in parts A and B, indicate your answer by circling
the letter which identifies the best choice

Part A: Each of the following questions is worth 1 point.

Problem 1
A firm' equity holders are its
a. creditors
b. managers
c. residual risk bearers
d. financial decision-makers
e. none of the above

Problem 2
If you bought a stock for $20 and sold it at a later date for $25, you would have made a(n)
a. face value
b. equity capital
c. capital loss
d. capital gain
e. none of the above

Problem 3
Firm value is
a. lowered by the existence of agency costs
b. the value of the firm's equity
c. the value of the firm's equity less the value of its short-term debt
d. maximized when total monitoring costs are maximized
e. none of the above

Problem 4
The first cash flow of an ordinary annuity occurs at the _________________ of the first period.
a. mid-point
b. beginning
c. future
d. end
e. none of the above

Problem 5

If the NPV profile of a project intercepts the x-axis at 18%, then:

a. the project's RRR should be < 18%.
b. the project's IRR = 18%.
c. the project's RRR should be > 18%.
d. the project's RRR = 18%.
e. none of the above

Problem 6

If changes in a firm's capital structure do not affect its operating cash flows, then the amount of debt it uses, assuming no corporate taxes:

a. has a direct effect on firm value.
b. has an indirect effect on firm value.
c. has no effect on firm value.
d. provides a tax shield.
e. none of the above.

Part B: Each of the following questions is worth two points.

Problem 7

Risky Electronics stock sells for $40.00 per share and pays no dividends. The risk free rate is 5%, and the expected return on the market is 10%. If investors expect RE stock to sell for $42.00 next period, what is its beta if return-risk combination is set according to the CAPM ?

a. 22
b. -.90
c. 4.5
d. 0
e. none of the above

Problem 8

A firm is planning to replace an existing machine with a new one. The new machine will generate the same revenues, but operating costs will decrease by $40,000 per year. The depreciation of the old machine was $6,000 per year, it will be $10,000 for the new machine. Assuming that the firm is in a 40% tax bracket, what is the annual CFAT ?.

a. $12,175.
b. $25,600.
c. $20,000.
d. $36,000.
e. none of the above

Part C: Each of the following problems is worth five points.

Please be sure to show your calculations

Problem 9

Stock X has a beta of 0,75, stock Y has a beta of 1,00 and stock Z has a beta of 1,50. The risk-free rate is 5%, and the expected market return is 12%.

(a) Find the expected market return on stock X.
(b) Find the expected market return on stock Y.
(c) Find the expected market return on stock Z.
(d) Suppose that you construct a portfolio of 20%X, 30% Y, and 50% Z. Using your answers to parts (a), (b), and (c) find the expected return of this portfolio.
(e) What is the beta of the portfolio specified in part (d)
(f) Using the information in the body of the problem and your answer to part (e), find the expected return on your portfolio.

Problem 10

Long term debt	
Value on Balance Sheet	2000,000
Market Value of the debt	3000,000
Stated rate of interest	15%
Effective rate (or YTM)	10%
Shareholders equity	
Common shares (on the Balance Sheet)	3000,000
Rertained Earnings	4000,000
Net income	1000,000
Market value of shares	7000,000
Beta of the firm's shares	1,5
Risk free rate of return	4%
Expected market return	12%
Income tax rate	40%
Current ratio	2,0

Calculate the weighted average cost of capital.