EASTERN UNIVERSITY, SRI LANKA

FACULTY OF COMMERCE & MANAGEMENT

Third Year Second Semester Examination in Business Administration/COMMERC – 2004/2005 (Nov' 2006)

MGT 3043 – Financial Management

Answer All Questions | Time: 03 hours

Calculator Permitted

---

01) a. You are examining the viability of a capital investment that your firm is interested in. The project will require an initial investment of Rs.500,000, and the projected revenues are Rs.400,000 a year for five years. The projected cost-of-goods-sold is 40% of revenues, and the tax rate is 40%. The initial investment is primarily in plant and equipment and can be depreciated straight line over five years. (The salvage value is zero). The project makes use of other resources that your firm already owns:

- Two employees of the firm, each with a salary of Rs.40,000 a year, who are currently employed by another division will be transferred to this project. The other division has no alternative use for them, but they are covered by a union contract that will prevent them from being fired for three years (during which they would be paid their current salary).
- The project will use excess capacity in the current packaging plant. Although this excess capacity has no alternative use now, it is estimated that the firm will have to invest Rs.250,000 in a new packaging plant in year 4 as a consequence of this project using up excess capacity (instead of year 8 as originally planned)
- The project will use a van currently owned by the firm. Although the van is not now being used, it can be rented out for Rs.3000 a year for five years. The book value of the van is Rs.10000, and it is being depreciated straight line (with five years remaining for depreciation)

The discount rate to be used for this project is 10%.

i. What (if any) is the opportunity cost associated with using the two employees from another division?

ii. What, if any, is the opportunity cost associated with the use of excess capacity of the packaging plant?

iii. What, if any, is the opportunity cost associated with the use of the van?

iv. What is the after-tax operating cash flow each year on this project?

v. What is the net present value of this project?

(12 Marks)

b. Fast and Loose Company has outstanding an 8 percent, four-year, Rs.1000 par value bond on which interest is paid annually.

i. If the market required rate of return is 15 percent, what is the market value of the bond?

ii. What would be its market value if the market required return dropped to (i)12 percent? and (ii) 8 percent?

iii. If the coupon rate was 15 percent instead of 8 percent and the market required rate of return was 15 percent for the above bond what would be the market value? If the required rate of return dropped to 8 percent, what would happen to the market price of the bond?

(08 Marks)

(Total 20 Marks)

02) a. The management of Royal Industries has called for a statement showing the working capital to finance a level activity of 180,000 units of output for the year. The cost structure for the company's product for the above mentioned activity level is detailed below:

	Cost per Unit
Raw material	20.00
Direct labour	05.00
Overheads (including depreciation of Rs.5 per unit)	15.00
	40.00
Profit	10.00
Selling price	50.00

Additional information:

a) Minimum desired cash balance is Rs.20,000

b) Raw materials are held in stock on average for two months

c) Work-in-progress (assume 50% completion stage) will approximate to half-a-month's production

d) Finished goods remain in warehouse on average for a month

e) Suppliers of materials extend a month's credit and debtors are provided two months credit; cash sales are 25% of total sales

f) There is a time-lag-in payment of wages of a month and half month in the case of overheads

From the above facts you are required to:

(i) Prepare a statement showing working capital needs; and

(ii) Prepare a statement showing total profit

(10 Marks)

b. Sony Industries has a beta of 1.45. The risk-free rate is 8% and the expected return on the market portfolio is 13%. The company presently pays a dividend of Rs.2 a share, and investors expect it to experience a growth in dividends of 10% per annum for many years to come.

i. What is the stock's required rate of return according to the CAPM?

ii. What is the stock's present market price per share, assuming this required return?

iii. What would happen to the required return and to market price per share if the beta was 0.80?

(10 Marks)

(Total 20 Marks)

03) a. Using the following information, complete the balance sheet:

Long-term debt to equity	0.5
Total asset turnover	2.5 times
Average collection period	18 days (assume a 360-day year and all sales on credit)
Inventory turnover	9 times
Gross profit margin	10%
Acid-test ratio	1

Balance Sheet

Notes and payables	Rs.100,000	Cash	______
Long-term debt	______	Accounts receivable	______
Common stock	Rs.100,000	Plant and equipment	______
Retained earnings	Rs.100,000		
Total liabilities and shareholders' equity	______	Total assets	______

(10 Marks)

b. The Servex company has the following capital structure on 31 December 2005.

	Rs.
Ordinary shares (200000 shares)	4000000
10% Preference shares	1000000
14% Debentures	3000000
	8000000

The ordinary share of the company sells for Rs.20. It is expected that the company will pay next year a dividend of Rs.2 per share which will grow at 7% forever. Assume a 50% tax rate.

a) Compute a weighted average cost of capital based on the existing capital structure (Book Value)

b) Compute the new weighted average cost of capital if the company raises an additional Rs.20 lakh debt by issuing 15% debenture. This would result in increasing the expected dividend to Rs.3 and leave the growth rate unchanged, but the price of share will fall to Rs. 15 per share

c) Compute the cost of capital if in (b) above growth rate increases to 10%

(10 Marks)

(Total 20 Marks)

04) a. A company is considering whether it should buy or lease equipment that costs Rs.8 million. A finance company has offered to lease the equipment for 5 years at annual lease payments of Rs.2 million at the beginning of each year. The owner of the equipment can claim depreciation on written-down basis at 25 percent each year. The company's (lessee's) tax rate is 35 percent, and its cost of borrowing is 14 percent, and the cost of capital is 16 per cent.

Should the company buy the asset or lease it?

(10 Marks)

b. You borrow Rs.10000 at 14 percent compound annual interest for four years. The loan is repayable in four equal instalments payable at the end of each year.

i. What is the annual payment that will completely amortize the loan over four years?

ii. Of each equal payment, what is the amount of interest? and what is the amount of loan principal?

(10 Marks)

(Total 20 Marks)

05 a. The distribution of returns for security P and security M is given below

Market condition		Return on Investment	
	Probability	P	M
Optimistic	0.30	30	- 10
Normal	0.40	20	20
Pessimistic	0.30	0	30

You are required to

i. Calculate the expected returns of securities P and M

ii. Calculate the variance and standard deviation of returns of securities P and M

iii. Calculate the covariance and correlation between returns of the security P and security M

iv. If you have decided to invest 40 percent in security P and rest in Security M what would be the portfolios expected return and risk?

v. What would be the best combination that would minimize the portfolio risk?

(12 Marks)

b. James Consol Company presently pays a dividend of Rs. 1.60 per share on its common stock. The company expects to increase the dividend at a 20 percent annual rate the first four years and at a 13 percent rate the next four years and then grow the dividend at a 7 percent rate thereafter. This phased-growth pattern is in keeping with the expected life cycle of earnings. You require a 16 percent return to invest in this stock. What value should you place on a share of this stock?

(08 Marks)

(Total 20 Marks)