

KARACHI UNIVERSITY BUSINESS SCHOOL
University of Karachi
FINAL EXAMINATION, DECEMBER 2009; AFFILIATED COLLEGES
FINANCIAL MANAGEMENT BA (M) – 622
MBA – IV

Date: January 07, 2010

Max Marks: 60

Max Time: 3 Hours

INSTRUCTION: Attempt Any FIVE Questions. All Questions Carry Equal Marks.

- Q # 1 a) Mehmood's Entertainment Corporation has an after-tax cost of debt 8 percent, a cost of preferred stock of 12 percent, and a cost of equity of 16 percent. What is the weighted average cost of capital, k_a or WACC, for this company? The capital structure of Mehmood's Company contains 20 percent debt, 10 percent preferred stock, and 70 percent equity.
- b) Assume that short-term investment securities are yielding 5 percent, and it costs a firm Rs. 20 each time it buys or sells investment securities. The variance of the firm's daily net cash flows has been found to be Rs. 20,000. Management wants to keep at least Rs. 1,000 in the cash account for emergencies. Given these conditions, what is the firm's target cash balance?
- Q # 2 a) Zahid wants to buy a new Ford Mustang automobile. He will need to borrow Rs. 20,000 to go with his down payment in order to afford this car. If car loans are available at a 6 percent annual interest rate, what would Zahid monthly payment be on a four-year loan?
- b) The Karim Corporation has issued a 10.95 percent annual coupon rate bond that matures on Dec. 31, 2007. If the required rate of return on bond of similar risk and maturity is 9 percent, and assuming the time now is Jan, 2007, what is the current value of Karim's bond?
- Q # 3 Three separate projects each have an initial cash outlay of Rs. 10,000. The cash flows for Pervaiz's Project is Rs. 4,000 per year for three years. The cash flow for Aziz's Project is Rs. 2,000 in years 1 and 3, and Rs. 8,000 in years 2. Mehboob's Project has a cash flow of Rs. 10,000 in year 1, followed by Rs. 1,000 each year for years 2 and 3
- a) Use the payback method to calculate how many years it will take for each project to recoup the initial investment?
- b) Which project would you consider most liquid?
- Q # 4 a) Shan Company is considering the replacement of its aerial tram. Sales are expected to increase by Rs. 900,000 per year and depreciation expense is also expected to rise by Rs. 300,000 per year. The marginal tax rate is 32 percent. The purchase will be financed with a Rs. 900,000 bond issue carrying a 10 percent annual interest rate. What are the annual incremental operating cash flows if his project is accepted?
- b) What is sunk cost? Is it relevant when evaluating proposed capital budgeting project? Explain.
- Q # 5 a) Danish Corporation common stock has a beta of 1.2. The market risk premium is 6 percent and the risk free rate is 4 percent. What is the required rate of return on this stock according to the CAPM?
- b) Using the above information, what is the required rate of return on the common stock of Danish Corporation? This stock has a beta of 4.
- Q # 6 Daniyal Corporation faces an IOS schedule calling for a capital budget of Rs. 60 million. Its optimal capital structure is 60% equity and 40% debt. Its earning before interest and taxes (EBIT) were Rs. 98 million for the year. The firm has Rs. 200 million in assets, pays an average of 10% on all its debt, and faces a marginal tax rate of 34 percent. If the firm maintains a residual dividend policy and will keep its optimal capital structure intact, what will be the amount of the dividend; it pays out after financing its capital budget?

KARACHI UNIVERSITY BUSINESS SCHOOL
University of Karachi
FINAL EXAMINATION: AFFILIATED COLLEGES
FINANCIAL MANAGEMENT BA (M) – 622
MBA – IV

Date: June 25, 2009
 Max. Marks: 60

Max Time: 3 Hours

Instructions: Attempt any five questions from the following.

- Q.No.1 (a) How will the following effect cash and net working capital?
- (i) The firm takes out a short-term bank loan and uses the funds to apy off some of its account payable.
 - (ii) The firm uses cash on hand to buy raw materials.
 - (iii) The firm repurchases outstanding shares of stock.
 - (iv) The firm sells long-term bonds and puts the proceeds in its bank account.
- (b) How will the following affect the size of the firm’s optional investment in current assets?
- (i) The interest rate rises from 6% to 8%.
 - (ii) A just-in-time inventory system is introduced that reduces the risk of inventory shortages.
 - (iii) Customers pressure the firm for a more lenient credit sales policy.
- (c) Suppose Pak manufacturers are able to reduce average inventory levels to Rs. 250 billion and average accounts receivable to R. 300 Billion. By how many days will this reduce the cash conversion cycle?

Q.No.2 (a) Here is a book balance sheet for Dawood Associates. Figures are in millions.

Assets		Liabilities and Shareholders' Equity	
Assets (book value)	Rs. 75	Debt	Rs. 25
		Equity	50
	Rs. 75		Rs. 75

Unfortunately, the company has fallen on hard times. The 6 million shares are trading for only for only Rs. 4 a piece, and the market value of its bet securities is 20% below the face (book) value. Because of the company’s large cumulative losses, it will pay no taxes on future income. Suppose shareholders now demand a 20% expected rate of return. The bonds are now yielding 14%. What is the weighted-average cost of capital?

- (b) Calculate the WACC for Dawood Associates assuming the companies faces 35% corporate income tax rate.
- (c) Given the following probability distribution, what is the expected return and the standard deviation or return for security J?

State	Pi	KI
1	0.2	10%
2	0.6	15%
3	0.2	2%

Q.No.3 (a) Given the following information, what is the required cash flows associated with the acquisition of a new machine; that is in a project analysis, what is the cash outflow at t= 0?

Purchase price of new machine	Rs. 8,000
Installation charge	2,000
Market value of old machine	2,000
Book value of old machine	1,000
Inventory decrease if new machine is installed	1,000
Account payable increase if new machine is installed	500
Tax rate	34%
Cost of capital	15%

- (b) After a long drought, the number of Rahim Farm is considering the installation of an irrigation system which will cost Rs. 100,000. It is estimated that the irrigation system will increase revenues by Rs. 20,500 annually, although operating expenses other than depreciation will also increase by Rs. 5,000. The system will depreciated using MACRS over its depreciable life (5 years) to a zero salvage value. If the tax rate on ordinary income is 40%, what is the project's IRR?
- Q.No.4 You have been asked by the president of your company to evaluate the proposed acquisition of a new special-purpose truck. The trucks basic price Rs. 50,000 and it will cost another Rs. 10,000 to modify it for special use by your firm. The truck falls into the MACRS three years class and it will be sold after three years for Rs. 20,000. Use of truck will require an increase in net working capital and revenues, but it is expected to save the firm Rs. 20,000 per year in before tax operating costs, mainly labor. The firm's marginal tax rate is 40%.
- (i) What is the net investment in the truck? (That is, what is the Year 0 net cash flow?)
 - (ii) What is the operating cash flow in year 1?
 - (iii) The truck's cost of capital is 10%. What is its NPV?
- Q.No.5 (a) (i) Explain the role of cash and of earnings when a corporation is deciding how much, if any, cash dividends to pay to common stockholders.
- (ii) Are there any legal factors that could restrict a corporation in its attempt to pay cash dividends to common stockholder? Explain.
- (b) What is the relationship between the bond's market price and its promised yield to maturity? Explain?
- Q.No.6 (a) All other things held constant, how would the market price of a bond be affected if coupon interest payments were made semiannually instead of annual?
- (b) Assume Muneeb Corporation is 100% equity financed. Calculate the return on equity, given the following information:
- (i) Earnings before taxes = Rs. 1,500
 - (ii) Sales = Rs. 5,000
 - (iii) Dividends payout ratio = 60%
 - (iv) Total assets turnover = 2.0
 - (v) Applicable tax rate = 30%
- Q.No.7 (a) Assume that your required rate of return is 12% and you are given the following stream of cash flows:
- | <u>Year</u> | <u>Cash Flow</u> |
|-------------|------------------|
| 0 | Rs. 10,000 |
| 1 | 15,000 |
| 2 | 15,000 |
| 3 | 15,000 |
| 4 | 15,000 |
| 5 | 20,000 |
- If payments are made at the end of each period, what is the present value of cash flow stream?
- (b) Pak manufacturers are able to reduce average inventory levels to Rs. 250 billion and average accounts receivable to Rs. 300 billion.
- At the same level of inventories, accounts receivable, and accounts payable, Pak manufacturers can production and sales by 10%. What will be the effect on the cash conversion cycle?

KARACHI UNIVERSITY BUSINESS SCHOOL
University of Karachi
FINAL EXAMINATION, 2009: AFFILIATED COLLEGES
FINANCIAL MANAGEMENT BA (M) – 622
MBA – IV

Date: January 13, 2009
 Max. Marks: 60

Max Time: 3 Hours

Instructions: Attempt any five questions. All questions carry equal marks.

- Q.No.1 (a) How is the financial management related to the general area of finance?
- (b) What are the fundamental financial decisions that must be made? Where does a decision concerning how much to pay the stockholders fit into this framework?
- (c) Why is shareholder wealth maximization a proper goal for the firm? Is it short-run goal or a long-run goal, and why?
- Q.No.2 (a) Salman Motors anticipates sales of Rs. 4,000,000/- next year, with an EBIT of 15 % of sales. Fixed assets total Rs. 2 million. The company is considering three possible levels of current assets: (1) Rs. 600,000, (2) Rs. 800,000 or (3) Rs. 1,000,000. for each of these three possibilities, calculate:
- (a) CA / TA ratios.
- (b) EBIT / TA ratios.
- (c) Rank the plans on the both risk and profitability.
- (b) The Wasim Corporation has a fixed asset / total asset ratio of 0.5 and a current ratio of 2.0. Calculate the CA / TA and CL / TF ratios after completing the following balance sheet.

<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Current assets</td> <td style="width: 50%;"></td> </tr> <tr> <td>Fixed assets</td> <td style="text-align: right;"><u>Rs. 100,000</u></td> </tr> <tr> <td>Total</td> <td style="text-align: right;"><u> </u></td> </tr> </table>	Current assets		Fixed assets	<u>Rs. 100,000</u>	Total	<u> </u>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Current Liabilities</td> <td style="width: 50%;"></td> </tr> <tr> <td>Long term debt</td> <td style="text-align: right;"><u>Rs. 50,000</u></td> </tr> <tr> <td>Equity</td> <td style="text-align: right;"><u> </u></td> </tr> <tr> <td>Total</td> <td style="text-align: right;"><u> </u></td> </tr> </table>	Current Liabilities		Long term debt	<u>Rs. 50,000</u>	Equity	<u> </u>	Total	<u> </u>
Current assets															
Fixed assets	<u>Rs. 100,000</u>														
Total	<u> </u>														
Current Liabilities															
Long term debt	<u>Rs. 50,000</u>														
Equity	<u> </u>														
Total	<u> </u>														

- Q.No.3 Calculate the NPV of an investment project with the following characteristics:
- | | |
|------------------------|---------------|
| Unit sold per year | 55,000 |
| Price per unit | Rs.800 |
| Variable cost per unit | Rs.720 |
| Fixed cost: | 0 |
| Initial cost: | Rs.20 million |
| Life of project: | 10 years |
| Discount rate: | 10% |
| Depreciation: | Straight line |
| Tax rate: | 34% |
- (a) Suppose an additional investment of Rs. 5 million would, reduce the variable cost per unit to Rs. 700. Figure the NPV of this alternative.
- (b) What is the break even (NPV) number of units for the two alternatives?
- Q.No.4 The Lucky Star Milling Co. is considering reopening one of its old silver mines. New extraction techniques will allow the company to mine a one-year production of silver worth Rs. 3 million in after-tax profit. However, in the second year of operation, the cost of returning the mine to the natural condition mandated by law will cost Rs. 1 million. Operating and preparing the mine will cost Rs. 1 million in the present year. The cost of capital is 8%.
- (a) What is the NPV of the reopened mine?
- (b) What is the IRR?

Q.No.5 (a) What is the total cash inflows for project A?

<u>Discount Rate (%)</u>	<u>NPV of A (Rs.)</u>	<u>NPV of B (Rs.)</u>
0	10,000	6,000
5	6,000	4,000
10	2,000	2,000
15	3,000	1,000

The initial outlay for both projects is Rs. 10,000.

(b) The Farid Frisby Company is an all equity firm with 125,000 common shares outstanding. It needs to raise Rs. 800,000 in order to manufacture cement frisbies for a national contest. The current stock price is Rs. 25. The Company decides to raise the funds by issuing preferred stock with a 90% coupon.

Q.No.6 (a) Jamil Corporation currently has a net income of Rs. 950,000, a stock price of Rs. 30 and 50,000 shares. What is the firm's earnings per share after a 10% stock dividend is paid?

(b) A firm has annual sales of Rs. 2.19 million (assume 365 days inn one year). Its working capital position, less cash balance in sales rupees, is as follows:

Account Receivable	Rs. 270,000
Inventory	Rs. 174,000
Account Payable	Rs. 228,000

- (i) How many days does it take for cash to flow through the current asset cycle?
 (ii) What is the net cash conversion cycle in days?

Q.No.7 (a) You are the manager of Imtiaz Super Store, and must decide between keeping automobile or electronics in the place that has become available. You have the following information regarding the two alternatives:

	<u>Automobile</u>	<u>Electronics</u>
Annual Sales (365 days)	Rs. 750,000	Rs. 620,000
Bad debt losses (% of sales)	1%	1.5%
Operating cost (% of sale)	65%	55%
Average age of inventory	30 days	75 days
Average collection period	30 days	45 days

The opportunity cost of inventory in current assets is 10%.

Required

What is the average level of accounts receivables for each alternative?

(b) The following information was taken from the common-Size Income Statement of Marvi Industries in 2007.

Cost of Goods Sold	58%
Selling Expenses	6%
General and Administrative Expenses	14%
Depreciation	10%
Interest Expense	8%
Taxes	2%

No expense other than those shown above was incurred in 2007.

Required

What was the net profit margin in 2007?

KARACHI UNIVERSITY BUSINESS SCHOOL
UNIVERSITY OF KARACHI
FINAL EXAMINATION, JUNE – JULY 2008: AFFILIATED COLLEGES
FINANCIAL MANAGEMENT BA (M) – 622
MBA – IV

Date: June 27, 2008
Max. Marks: 60

Max Time: 3 Hours

Instructions: Attempt any four questions. All questions carry equal marks.

- Q.No.1 (a) Differentiate the following terms:
- (i) Premium Bond and Discounted Bond
 - (ii) CAPM and APT
 - (iii) Total Risk and Market Risk
 - (iv) Compounding and Discounting
- (b) Find the future values of the following ordinary annuities:
- (i) FV of Rs. 400 each 6 months for 5 years at a nominal rate of 12 percent, compounded semiannually.
 - (ii) FV of Rs. 200 each 3 months for 5 years at a nominal rate of 12 percent, compounded quarterly.
- (c) You have recently purchased shares of stock in the X Corporation. Currently, the dividend per share is Rs. 1.75. If you expect dividend to grow by 12 percent a year what will your dividend payment be seven years from today.

Q.No.2 the following tabulation gives earning per share figures for Pappas Manufacturing during the preceding ten years. The firm's common stock, 140,000 shares outstanding, is now selling for Rs. 50 a share, and the expected dividend for the coming year (2009) is 50 percent of EPS for the year. Investors expected past trends to continue, so g may be based on the historical earnings growth rate.

<u>Year</u>	<u>EPS</u>
1999	2.00
2000	2.16
2001	2.33
2002	2.52
2003	2.72
2004	2.94
2005	3.18
2006	3.43
2007	3.70
2008	4.00

The current interest rate on new debt is 8 percent. The firm's marginal tax rate is 40 percent. The firm's market value capital structure, considered to be optimal, is as follows:

Debt	Rs. 3,000,000
Common Equity	<u>7,000,000</u>
Total Capital	Rs. <u>10,000,000</u>

Required

Find the firm's WACC, assuming no common stock is sold.

Q.No.3 You are a financial analysis for the National Company. The Director of capital budgeting has asked you to analyze two proposed capital investments, Project X and Y. each project has a cost Rs. 100,000 and the cost of capital for both projects is 12 percent. The projects' expected net cash flows are as follows:

Year	Expected Net Cash Flow	
	Project X	Project Y
0	Rs. 100,000	Rs. 100,000
1	65,000	35,000
2	30,000	35,000
3	30,000	35,000
4	10,000	35,000

Required

Calculate each project's payback, net present value (NPV), interest rate of return (IRR).

Q.No.4 A corporation declares a 10 percent stock dividend and a cash dividend of 20 paises to be paid to both old shares and those received as stock dividends. Before this announcement the balance sheet appeared as follows:

Assets		Liabilities	
Cash	Rs. 10,000,000	Common:	10,000
Other asset	90,000,000	Par (Rs. 1)	Rs. 10,000,000
		Paid-in capital	40,000,000
		Retained earnings	50,000,000
Total assets	Rs. 100,000,000	Total equity	Rs. 100,000,000

Required

Construct a new balance sheet showing the firm's position after paying the stock and cash dividends.

Q.No.5 You have been asked by the president of your company to evaluate the proposed acquisition of a new spectrometer for the firm's R&D department. The equipment's basic price is Rs. 70,000, and it would cost another Rs. 15,000 to modify it for special use by your firm. The spectrometer, which falls into the MACRS 3-year class, would be sold after three years for Rs. 30,000. Use of the equipment would require an increase in net working capital (spare parts inventory) of Rs. 4,000. The spectrometer would have no effect on revenues, but it is expected to save the firm Rs. 25,000 per year in before-tax operating costs, mainly labor. The firm's marginal tax rate is 40 percent.

Required

- What is the net cost of the spectrometer? (That is, what is the year 0 net cash flow?)
- What are the net operating cash flows in year 1, 2, and 3?
- What is the additional (none operating) cash flow in Year 3?

UNIVERSITY OF KARACHI
FINAL EXAMINATION, JANUARY-2008: AFFILIATED COLLEGES
FINANCIAL MANAGEMENT BA (M) – 622
MBA – IV

Date: January 22, 2008
 Max. Marks: 60

Max Time: 3 Hours

Instructions: Attempt any five questions.

- Q.No.1 (a) Differentiate between:
- (i) Cash flow and incremental cash flow
 - (ii) Real rate of return and nominal rate of return
 - (iii) Sunk cost and opportunity cost
 - (iv) CAPM and APT
- (b) Moin Corporation's common stock is currently selling for Rs. 50 per share. The current dividend is Rs. 2.00 per share. If dividends are expected to grow at 6% per year and if flotation costs are 10% then what is the firm's cost of retained earnings and what is its cost of new common stock?

- Q.No.2 (a) A risk-averse investor is considering two possible assets as the asset to be held in isolation. The assets' possible returns and related probabilities (i.e. the probability distributions) are as follows:

<u>Asset X</u>		<u>Asset Y</u>	
<u>P</u>	<u>K</u>	<u>P</u>	<u>K</u>
0.10	-3%	0.05	-3%
0.10	2	0.10	2
0.25	5	0.30	5
0.25	8	0.30	8
0.30	10	0.30	10

Which asset should be preferred?

- (b) An electronic company has a return of 22% and a beta of 2. A leisure products company has a return of 18.5% and a beta of 1.5.
- (i) What is the market return?
 - (ii) What is the risk-free rate?
- Q.No.3 (a) Calculate the required rate of return for Mahmood & Co., assuming that investors expect a 5% rate of inflation in the future. The risk-free rate equal to 3% and the market risk premium is 5%. Mahmood has a beta of 2.0, and its realized rate of return has average 15% over the last 5 years.
- (b) Assume that you will receive Rs. 2,000 a year in Years 1 through 5, Rs. 3,000 a year in Years 6 through 8, and Rs. 4,000 in year 9, with all cash flows to be received at the end of the year. If you require a 14% rate of return, what is the present value of these cash flows?
- (c) You deposited (Rs. 1,000) in a saving account that pays 8% interest, compounded quarterly, planning to use it to finish your last year in college. Eighteen months later you decide to close out your account. How much money will you receive?
- Q.No.4 Babar Corporation's present capital structure, which is also its target capital structure, is 40% debt and 60% is common equity. Next year's net income is projected to be Rs. 21,000, and Babar's payout ratio is 30%. The company's earnings and dividends are

growing at a constant rate of 5%; the last dividend D_0) was Rs. 2.00; and the current equilibrium stock price is Rs. 21.88. Babar can raise all the debt financing it needs at 14.0%. If Babar issues new common stock, a 20% flotation cost will be incurred. The firm's marginal tax is 40%.

- What is the maximum amount of net capital that can be raised at the lowest component cost of equity?
- Assume that at one point along the marginal cost of capital schedule the component cost of equity is 18.0%. What is the weighted average cost of capital at that point?

Q.No.5

Karachi Company is evaluating the new investment in a project which requires an initial outlay of Rs. 10,000 and has the following cash flows:

<u>Year</u>	<u>CFAT</u>
1	Rs. 3000
2	Rs. 3000
3	Rs. 3000
4	Rs. 4000
5	Rs. 4000

Assuming all cash flows occur at the end of the period.

Q.No.6

- Sky Lifts Inc. is a highly seasonal business. The following summary balance sheet provides data for peak and off-peak seasons (in thousands of rupees).

	<u>Peak</u>	<u>Off-peak</u>
Cash	Rs. 50	Rs. 30
Marketable securities	0	20
Account receivable	40	20
Inventories	100	50
Net fixed assets	<u>500</u>	<u>500</u>
	<u>Rs. 690</u>	<u>Rs. 620</u>

Required

From the above data identify and conclude the working capital policy of the firm.

- The account of Waseem Inc. indicates the following changes in long-term assets and capital for the past year:
 - Fifty thousand (50,000) shares of common stock were sold at Rs. 25 per share.
 - Two million rupees (Rs. 2 million) in bonds matured and were retired.
 - Dividends of Rs. 1 million were paid.
 - Net fixed assets declined by Rs. 200,000.
 - Net income was calculated to be Rs. 2 million.
 - Depreciation expense was Rs. 1.5 million.

Required

What was the increase or decrease in net working capital?

UNIVERSITY OF KARACHI
FINAL EXAMINATION, 2007: AFFILIATED COLLEGES
FINANCIAL MANAGEMENT BA (M) – 622
MBA – IV

Max. Marks: 60

Date: January 15, 2007

Time: 3 Hrs

Instruction: Attempt any five questions.

Question # 1

- a. What is meant by the external environment for financial management? What factors are included here? Explain briefly how each factor influences financial management?
- b. If management is maximizing the firm's net income, this is necessarily identical to maximizing earnings per share and stock price. Do you agree or not? Explain.

Question # 2

- a. You are given the following information about a firm: The growth rate equals a 8 percent; return on assets (ROA) is 10 percent; the debt ratio is 20 percent; the stock is selling at Rs. 36. what is the return on equity (ROE)?
- b. What problems would the investor and/or firms face if replacement costs were substituted for historical costs in the firms financial statements?
- c. Selected ratios for Ahmed Industries are given below:-

Current ratio	2.5
Average collection period	54 days
Total debt to total assets	40%
Total assets turnover	2
Inventory turnover	3

Based upon the information above complete the following balance sheet for the Company.

Cash	Rs. 100,000	Current Liabilities	
Receivables		Long-term debt	
Inventory		Total debt	
Plant		Common equity	Rs. 600,000
Total assets	_____	Total claims	_____
	_____		_____

Question # 3

Ross and Sons Company have a target capital structure that calls for 40 percent debt, 10 percent preferred stock, and 50 percent common equity. The firm's current after-tax cost of debt is 6 percent, and it can sell as much debt as it wishes at this rate. The firm's preferred stock currently sells for 90 a share and pays a dividend of Rs. 10 per share; however, the firm net only Rs. 80 per share from the sale of new preferred stock. Ross expects to retain Rs. 15,000 in earnings over the next year. Ross common stock currently sells for Rs. 40 per share, but the firm will net only Rs. 34 per share from the sale of new common stock. The firm recently paid a dividend of Rs. 2 per share on its common stock, and investors expect the dividend to grow indefinitely at a constant rate of 10 percent per year.

- a. What is the firm's cost of retained earnings?
- b. What is the firm's cost of newly issued common stock?
- c. What is the firm's cost of newly issued preferred stock?

Question # 4

- a. Two projects being considered by a firm are mutually exclusive and have the following project cash flows:

<u>Year</u>	<u>Project A</u>	<u>Project B</u>
0	(Rs. 100,000)	(Rs. 100,000)
1	39,500	0
2	39,500	0
3	39,500	133,000

Based only on the information given, which of the two projects would be preferred, and why?

- b. Genuine Products Company requires a new machine. Two companies have submitted bids, and you have been assigned the task of choosing one of the machines. Cash flow analysis indicates the following:

<u>Year</u>	<u>Machine A</u>	<u>Machine B</u>
0	Rs. 2,000	Rs. 2,000
1	0	832
2	0	832
3	0	832
4	3,877	832

Based only on the information given, which of the two projects would be preferred, and why?

Question # 5

- a. The Target Copy Company is contemplating the replacement of its old printing machine with a new model costing Rs. 60,000. The old machine, which originally cost Rs. 40,000, has 6 years expected life remaining and a current book value of Rs. 30,000 versus a current market value Rs. 24,000. Target's corporate tax rate is 40 percent. If Target sells the old machine at market value, what is the initial outlay (after – tax) for the new printing machine?
- b. Sound Systems Company wants to use the economic ordering quantity model to determine the optimal order quantity of speakers. The wholesale unit purchase price to Sound Systems is Rs. 50, and annual sales at Rs. 100 per unit retail price total Rs. 50,000. The fixed cost of placing an order is Rs. 10, and the carrying cost is 50 percent of the purchase price. What is the EOQ, in units?

Question # 6

The staff National Manufacturing has estimated the following net cash flows and probabilities for a new manufacturing process:

<u>Year</u>	<u>Net Cash Flow</u>		
	<u>P = 0.2</u>	<u>P = 0.6</u>	<u>P = 0.2</u>
0	(Rs. 200,000)	(Rs. 200,000)	(Rs. 200,000)
1	40,000	60,000	80,000
2	40,000	60,000	80,000
3	40,000	60,000	80,000
4	40,000	60,000	80,000
5	40,000	60,000	80,000
5*	0	40,000	60,000

Line 0 is the cost of the process Lines 1- 5 are operating cash flows, and line 5* contains the estimated salvage values. The firm's marginal cost capital (MCC) for an average-risk project is 10 percent.

- i. Assume that the project has average risk. Find the project's base case NPV. (Hint: Use expected values for the net cash flow in each year.)
- ii. Find the worst-case NPVs. What is the probability of occurrence of the worst

UNIVERSITY OF KARACHI
FINAL EXAMINATION, SPRING - 2006: AFFILIATED COLLEGES
FINANCIAL MANAGEMENT BA (M) - 622
MBA - IV

Max. Marks: 60
Date: June 27, 2006

Time Allowed: 3 Hours

INSTRUCTIONS

Attempt any SIX (06) questions. All questions carry equal marks.

- Q.1. (a) Describe the duties of the financial Manager in a business firm.
(b) Will profit maximization always result in stock price maximization? Explain.
(c) What are the factors which affect the firm's stock price? And identify some factors beyond a firm's control which influence its stock price.

- Q.2. (a) Differentiate between the following: (any five)

- (a) Zero Growth Stock and Constant Growth Stock
- (b) Total Risk and Market risk
- (c) Capital Gain and Ordinary Income
- (d) Yield to Maturity and Yield to Call
- (e) Primary Market and Secondary Market
- (f) Trust Receipts and Warehouse receipts

- (b) What are some methods firms can use to accelerate receipts?

- Q.3. Suppose Fahad Motor Company sold an issue of bonds with a 10-year maturity, a Rs. 1,000 par value, a 10% coupon rate, and semiannual interest payments.

- a. Two years after the bonds were issued, the going rate of interest on bonds such as these fell to 6%. At what price would the bonds sell?
- b. Suppose that, 2 years after the initial offering, the going interest rate had risen to 12%. At what price would the bonds sell?
- c. Suppose that the conditions in part an existed – that is, interest rates fell to 6% 2 years after the issue date. Suppose further that the interest rate remained at 6% for the next 8 years. What would happen to the price of the Fahad Motor Company bond overtime?

- Q.4. Old Gold is a mining Company. Currently Old Gold stock sells for Rs. 15 per share. Old Gold pays a 0.50 dividend per year with certainty. The price of Old Gold next year will depend on the state of the economy as given below.

- | | <u>Price</u> | <u>Probability</u> |
|------|--------------|--------------------|
| Bust | 5 | .5 |
| Boom | 25 | .5 |
- a) What is the expected return on Old Gold stock?
 - b) What is the expected capital gain?
 - c) What is the variance of Old Gold's return?

Q.5. You have been asked to evaluate a project which requires an initial cash outlay of Rs. 0.65 million. This project will generate net cash flows of Rs. 75,000 for five years and then Rs. 100,000 for the remaining five years. All cash in flows occur at the end of the period. You have determined that for a project of this type the investors require a rate of return of 10%.

Determine the following:

- a. NPV
- b. Payback period
- c. IRR

Q.6. (a) Your firm is planning to replace a machine which it had purchased in the past. The remaining economic life of the machine is 6 years and the book value is Rs. 120,000. The salvage value at the end of 6 years is expected to be zero. The replacement machine has an economic life of 6 years and can be purchased for Rs. 350,000. The salvage value is expected to be Rs. 50,000. This machine will generate Rs. 40,000 per year in additional revenues and will decrease operating costs by Rs. 20,000 per year. Assume that the book value of the old machine accurately reflects its market value. The marginal income tax rate is 40%, the depreciation is straight line and the RRR is 10%.

Determine the following:

- a) Initial Outlay
- b) CFAT

(b) You are trying to decide between three projects, A, B, C.

<u>Project</u>	<u>Investment</u>	<u>Return</u>	<u>Risk Premium</u>
A	Rs. 100	5%	2%
B	Rs. 100	7%	3%
C	Rs. 100	11%	6%

Assume that the risk free rate is 4% and that you have only Rs. 100 to invest.

- a. What is the best investment for this investor?
- b. At what risk-free interest rate will the investor be indifferent between the risk-free investment and A?

Q.7. (a) Mursalin's Entertainment Corporation has an after-tax cost of debt of 8%, a cost of preferred stock of 12%, and a cost of equity of 16%. What is the weighted average cost of capital, K_a or WACC, for this company? The capital structure of Mursalin's company contains 20% debt, 10% preferred stock, and 70 percent equity.

(b) Mr. Ahmed's firm has fixed costs of Rs. 20,000, variable costs per unit of Rs. 2, and a selling price per unit of Rs. 4.5. What is Mr. Ahmed's breakeven level of sales (in units)?