K.J. Somaiya Institute of Management Studies & Research
Course: PGDM (IB) – III Tri. End Term Exam
Sub: Advanced Financial Management

Date of Exam: 5th April, 2017 Time: 3 Hrs. Marks: 50

Note:
1. Question No.1 is compulsory (20 Marks).
2. Answer any three from remaining (10 Marks)
3. Use of scientific calculator is allowed but not financial calculator or mobile phone.

Question No.1
ML Limited being appraised by an investment banker. The following information has been assembled.

Base Year (Year 0) Information	
Revenues	Rs.1000 million
EBIT	Rs.250 million
Capital expenditure	Rs.295 million
Depreciation	Rs.240 million
Working capital as a % of revenue	20%
Tax rate	40%

Inputs for High Growth Period	
Length of high growth period	5 years
Growth in Revenues, EBIT, Depreciation and capital expenditure	25%
Working capital as a % of revenue	20%
Cost of debt	15% (Pre Tax)
D/E Ratio	1.5
Risk free rate	12%
Market risk premium	6%
Equity beta	1.583
Tax rate	40%

Inputs for Transition Period	
Length of Transition period	5 Years
Growth rate in revenues, depreciation, EBIT and capital expenditure will decline by 3% from 5th Year onwards.	3% decline
Working capital as % of revenue	20%
D/E Ratio	1:1
Risk free rate	11%
Market risk premium	6%
Beta	1.10
Tax Rate	40%

Inputs for Stable Growth Period	
Growth rate in revenues, depreciation, EBIT and capital expenditure	10%
Working capital as % of revenue	20%
D/E Ratio	0:1
Pre tax cost of debt	12%
Risk free rate	10%
Market risk premium	6%
Beta	1
Tax Rate	40%

By using the above inputs calculate FCFF and find out value of the firm.
Note: FCFF = EBIT (1-t) + Depreciation – Capital Expenditure – Change in Working Capital

Question No.2
Existing capital structure of Zenith Enterprises is as follows:

Particulars	Rs. Crores
Paid-up share capital of Rs. 10 each	10
Reserves and surplus	15
Debentures bearing 14% interest per year	15
Total	40

An expansion program for company is under consideration. It requires Rs.20 crores and promises an increase of Rs.6 crores in EBIT from its existing level of Rs.8 crores.
Three financing alternatives for obtaining the requisite amount of Rs.20 crores are under consideration.
The first alternative is to issue equity shares of Rs.10 par at a premium of Rs.40 each. Share issue expenses as also under pricing of the issue in comparison to ruling market price results in net proceedings of Rs.40 for every new share issued.
The second alternative is to borrow the requisite amount at 15% rate of interest per year.
The third alternative is a combination of the first and second, under which Rs.10 crores will be borrowed at 15% rate of interest per year and the balance amount obtained by share issue as per terms indicated in the first alternative.
Applicable corporate tax rate is 40%.

Required:
(A) If the expansion program is to be considered only if the EPS increase from its existing level, indicate which plan qualifies for consideration.
(B) At what level of EBIT will EPS be equal to zero under each of the financial alternatives?
(C) Determine the point of indifference among the three financing alternatives.

Question No. 3 (A)
A company earns Rs.10 per share at an IRR of 15%. The firm has policy of paying 40% of earning as dividends. If the required rate of return is 10%. Determine the price of the share under (A) Walter's Model (B) Gordon's Model.

Question No. 3 (B)
Asoka Limited has a capital structure shown below:

Particulars	Rs. Crores
Paid-up share capital of Rs. 10 each	10
Reserves and surplus	15
Debentures bearing 14% interest per year	15
Total	40

Show the changed capital structure if the company declares a bonus issue of shares in the ratio of 1:5 to ordinary shareholders when the issue price per share is Rs.100. How would the capital structure be affected if the company had split its stock five-for-one instead of declaring bonus issue?

Question No. 4 (A)

X Co. has a net operating income of Rs.200000 on an investment of Rs.100000 in assets. It can raise debt at a 16% rate of interest. Assume that taxes do not exist.

Using NI approach and an equity capitalization rate of 18%, compute the total value of and the WACC if the firm has (I) No Debt (II) Rs.300000 debt, (III) Rs.600000 debt.

Question No. 4 (B)

Two firms A and B are identical in all respect except that B has Rs.500000 debt outstanding at a 6% rate of interest. The values of the two are given as follows:

Particulars	A	B
Net operating income	150000	150000
Cost of debt	--	30000
Net income	150000	120000
Ke	0.10	0.15
Market value of equity	1500000	800000
Market value of debt	--	500000
Total value of firm	1500000	1300000
Ko	0.10	0.1154

Assume that an investor owns 10% of A's shares. How can the investor obtain same return at a lower cost?

Question No. 5

From the following information concerning Nebula Limited, prepare a statement showing computation of EVA for the year ended 31st March, 2010:

Summarized Profit and Loss Account

	Amount	Amount
Sales		2000000
Cost of goods sold		1200000
Gross Profit		800000
Expenses:		
General	200000	
Office and administration	250000	
Selling and distribution	64000	514000
PBIT		286000
Less: Interest		36000
PBT		250000
Tax @ 40%		100000
PAT		150000

Summarized Balance Sheet

Liabilities	Amount	Assets	Amount
Equity shares	240000	Fixed assets	600000
Reserves	160000	Stock	120000
Term Loan	240000	Debtors	60000
Current Liabilities	160000	Bank	20000
Total	800000	Total	800000

Other Particulars:

(i) General expenses include R&D expenses of Rs.800000. For EVA computation R&D expenses are to be considered as an investment.

(ii) Cost of goods sold includes depreciation expenses of Rs.60000.

(iii) The expectation return of shareholder is 12%.

Question No. 6

The income statement & balance sheet of ME Limited for yr.1 & yr.2 are as follows:

Profit & Loss Account (Rs. In lakhs)	**Year 1**	**Year 2**
Net sales	2400	2670
Cost of goods sold	1830	2040
Gross profit	570	630
Selling expenses	180	195
General & administration exp.	180	156
Depreciation	150	192
Operating profit	60	87
Non-operating surplus/deficit	24	30
Profit before interest & tax	84	117
Interest	30	33
Profit before tax	54	84
Tax	21	30
Profit after tax	33	54
Dividends	18	21
Retained earnings	15	33

BALANCE SHEET (Rs. In lakhs)	Year 1	Yea r2
Assets		
Fixed assets (net)	90	1140
Investments	0	60
Current assets, loans & advances	60	
• Cash & bank		42
• Receivables	36	600
• Inventories	54	576
• Prepaid expenses	0	135
Miscellaneous expenditure & losses	51	42
Total	9	**2595**
	12	
	3	
	45	
	22	
	23	
Liabilities		
Share capital		
Equity	450	450
Reserves & surplus	354	387
Secured loans		
Term loans	432	525
Bank borrowings	489	597
Current liabilities		
Trade creditors	378	501
Provisions	120	135
Total	**2223**	**2595**

a) Using the percent of sales method (except, assume that dividends are raised to 24, depreciation to 180 & interest to 36) prepare the pro forma income statement for the year 3. Assume that the sales will be Rs 3060 in year 3.
b) Assume that all items on the assets side, except investment & miscellaneous expenditures & losses, will grow proportionally to sales likewise, trade credit will be proportional to sales. Finally estimate the amount of external financing needed for year 3.

The tax rate expected is 35%. This will be the only provision in the year 3.