

Faculty of Management Studies

University of Delhi

MBA FT-6204 Financial Management

Time Allowed: 3 Hours

Max. Marks: 50

Instructions:

Attempt 5 questions in all. All questions carry equal marks.

1. (a) Respond true or false to the following statements relating to the dividend discount model.
 - A. The dividend discount model cannot be used to value a high growth company that pays no dividends.
 - B. The dividend discount model will undervalue stocks, because it is too conservative.
 - C. The dividend discount model will find more undervalued stocks, when the overall stock market is depressed.
 - D. Stocks that are undervalued using the dividend discount model have generally made significant positive excess returns over long periods (five years or more).
 - E. Stocks which pay high dividends and have low price/earnings ratios are more likely to come out as undervalued using the dividend discount model.(5)
1. (b) An analyst complains that the Gordon Growth Model yields absurd results. He presents several problems that he has had with the model. Respond to each of these comments.
 - A. The model values stocks which do not pay dividends at zero.
 - B. The model sometimes yields negative values for stocks, when growth rates exceed the discount rate.
 - C. The model yields absurdly high values for other stocks, where the discount rate is very close to the growth rate.
 - D. No firm raises dividends by a fixed percent every year. The model's assumption is unrealistic and the values obtained from it will not hold.
 - E. Since cyclical firms have earnings which go up and down, based upon economic conditions, the model can never be used to value a cyclical firm.(5)
2. (a) David Lyons, CEO of Lyons Solar Technologies, is concerned about his firm's level of debt financing. The company uses short-term debt to finance its temporary working capital needs, but it does not use any permanent (long-term) debt. Other solar technology companies average about 30 percent debt, and Mr. Lyons wonders why they use so much more debt, and what its effects are on stock prices. To gain some insights into the matter, he poses the following questions to you, his recently hired Assume that firms U and L are in the same risk class, and that both have $EBIT =$

Rs 500,000. Firm U uses no debt financing, and its cost of equity is $r_{sU} = 14\%$. Firm L has Rs 1 million of debt outstanding at a cost of $r_d = 8\%$. There are no taxes. Assume that the MM assumptions hold, and then: Find v , s , r_s , and WACC for firms U and L

Using the data given above, assume that firms L and U are both subject to a 40 percent corporate tax rate, Find v , s , r_s , and WACC for firms U and L. (5)

2. (b) XYZ limited R&S position as on 31 march 2010 were as follows:

(Rupees in millions)

General reserve	125
Revelation reserve	60
Securities premium	50
P/L Balance	50

	285

The company has 10 million outstanding shares of rupees 10 each. Securities premium account include rupees 30 million for shares issued for consideration others than cash.

The board of XYZ Limited recommended a bonus issues of 2:1(2 equity shares for each shares held) at rupees 10 each.

Show how it will be recorded in the balance sheet. Do bonus issues really matters. Comment on the market price per share of the company after the bonus issues. (5)

3. Six computer engineers from a MNC are leaving that firm in order to form their own corporation. The new firm will produce and distribute computer software on a national basis. The software will be aimed at scientific markets and businesses desiring to install comprehensive information system. Private investors have been lined up to finance the new company. Two financing proposals are being studied. Both of these plans involve the use of some financial leverage. However, one is much more highly levered than the other. Plan A requires the firm to sell bonds with an effective interest rate of 14 percent. One million Rupees would be raised in this manner. Additionally, under plan A Rs. 5 million would be raised by selling stock at Rs. 50 per common shares. Plan B also involve raising Rs. 6 million. This would be accomplished by selling Rs. 3 million of bonds at an interest rate of 16 percent. The other Rs. 3 million would come from selling common stock at Rs. 50 per share. In both cases the use of financial leverage is considered to be a permanent part of firm's capital structure, so no fixed maturity date is used in the analysis. The firm considers a 50 percent tax rate as appropriate for planning purposes

- a. Find the EBIT indifference level associated with the two financing plans, and prepare an EBIT-EPS analysis chart.
- b. Prepare an analytical income statement that demonstrates that EPS will be the same regardless of the plan selected. Use the EBIT level found in part (a) above.
- c. A detailed financial analysis of the firm's prospects suggests that long-term EBIT will be above Rs. 2,70,000 annually. Which financing plan should be chosen?

(10)

4. Mr. Shiv Sawhney planned to operate a Travel Agency, for which his first step was to purchase a luxury coach, he named his travel agency as "Agra tour and travel" for which he needed Rs. 10 lakh. He took a loan of Rs. 6 lakh and financed 4 lakh from his pocket. He had invested this 4 lakh in a bank account on which he was receiving interest @10%

The salvage value that the Bus will fetch after the useful life of 5 years is expected to be Rs 2.5 lakh.

His assumptions regarding the occupancy of the Bus and cost are given in the Exhibit 1 to 3, which you have to assume to be correct.

Exhibit -1

Agra Tours and Travels (cost Estimation)									
Year	Fuel oil grease	Repairs	Advertisemen t	Wages	Bonus	Other	Depreciatio n	Total Cost	
1	60,000	2,000	30,000	5,000	2,500	16,000	150,000	265,500	
2	80,000	2,000	30,000	6,000	2,600	16,000	150,000	286,600	
3	90,000	2,000	10,000	7,000	2,700	16,000	150,000	277,700	
4	110,000	3,000	10,000	8,000	2,800	16,000	150,000	299,800	
5	120,000	3,000	5,000	9,000	2,900	16,000	150,000	305,900	

Exhibit-2

Loan Amortization Schedule					
Year ending	loan taken	repaid	int. repaid	principle repaid	balance
1	600,000.0	166,446.0	72,000.0	94,446.0	505,554.0
2	505,554.0	166,446.0	60,666.5	105,779.5	399,774.5
3	399,774.5	166,446.0	47,972.9	118,473.1	281,301.4
4	281,301.4	166,446.0	33,756.2	132,689.8	148,611.6
5	148,611.6	166,446.0	17,833.4	148,612.6	-

Exhibit-3

Estimated profit						
Revenue	Cost	PBIT	Interest	PBT	Tax	PAT
300,000.0	265,500.0	34,500.0	72,000.0	-37500	-	-37500
330,000.0	286,600.0	43,400.0	60,666.5	-17266.48	-	-17266.48
390,000.0	277,700.0	112,300.0	47,972.9	64,327.1	22,514.5	41,812.6
390,000.0	299,800.0	90,200.0	33,756.2	56,443.8	19,755.3	36,688.5
390,000.0	305,900.0	84,100.0	17,833.4	66,266.6	23,193.3	43,073.3

Mr Shiv Sawhney, was very happy that after 5 years after paying the bank loan, he will be left with more than 2.6 lakh.

1. Do you agree with the calculation that he has made? If not then where has he committed a mistake?
2. Had you been in his place would you accept the project?
3. If not, than work out your calculations?
4. What will be the appropriate discount rate that you will like to use? (10)

5.(a) Calculate the optimum cash strategy under the following alternatives

Minimum cash balance = Rupees 10,000

Variance of daily cash flows = 6,250,000

Interest rate = .025 percent per day

Transactions cost for each sale or purchase of securities = Rupees 20. (4)

(b). To increase sales from their present annual Rupees 24 million KIM CHI company a wholesaler may try more liberal credit standard. Currently firm has an average collection period of 30 days. It believes that with increasingly liberal credit standards, the following will result:

CREDIT POLICY				
	A	B	C	D
Increase in sales from previous level (in million)	Rupees 2.8	1.8	1.2	0.6
Average collection period for incremental sales (days)	45	60	90	144
Bad debt losses on incremental sales	3%	6%	10%	15%

The price of the product average Rupees 20 per unit, and the variable cost average Rupees 18 per unit

If the company has a pretax cost of fund of 30% which credit policy should be pursued? Why? (Assume a 360-day year) (6)

With the assistance of firm management consultants, the directors of Ocean Blue Hotel, a profitable company in the hotel and leisure industry, are currently considering an expansion project to build a new country club and conference centre next to the existing hotel. The new complex will provide a wide range of leisure and business facilities for members, guests and business community.

The initial investment in land, buildings and equipments is estimated at £880,000, although grant aid of 10% of this capital cost will be received in the project's first year of operation. Annual operating costs (salaries, wages, overheads, etc.) associated with the project are estimated at £265,000 (which include depreciation of £58,000 and an allocation of the hotel's existing fixed overheads of £22,000). The cost of the consultants' report on the project was £12,000.

In the business plan the consultants' estimate of club membership is as follows:

No of members		Probability
Year 1	Year 2 onwards	of occurrence
300	600	0.15
400	700	0.20
500	800	0.30
600	900	0.20
700	1,000	0.15

The consultants also estimate membership fees as follows:

No of members		Probability
Year 1	Year 2 onwards	of occurrence
£200	£300	0.15
£250	£350	0.20
£300	£400	0.30
£350	£450	0.20
£400	£500	0.15

Additional revenues from other related activities (bar and restaurant sales, conferences and functions, etc.) are estimated at £45,000 per year. The business plan also assumes a ten-year economic life for the project.

Océan Blue's current cost of capital is 10% and the directors wish to add a risk premium of 2% for this project. The directors require a maximum acceptable payback period of six years for this project.

As a member of the management consultancy team you are required to:

1. Calculate the payback period (PPB) for the project;
2. Calculate the net present value (NPV) for the project;
3. Calculate the internal rate of return (IRR) for the project;
4. Identify, and briefly explain, two techniques you would consider appropriate for the assessment of risk in this particular project.
5. What other factors (financial and non-financial) should the directors consider in evaluating this project?
6. Based on your evaluation, advise the directors on the acceptability of the project.

Assume 30% tax rate and ignore residual values.

(10)