

M.Com. DEGREE EXAMINATION APRIL 2011  
COMMERCE  
SECOND SEMESTER

COURSE : CORE  
PAPER : FINANCIAL MANAGEMENT  
TIME : 3 HOURS  
MAX. MARKS: 100

SECTION – A

ANSWER ANY FIVE QUESTIONS: ( 5 x 8 = 40)

1. Explain the following:
  - a. Trading on equity
  - b. Wealth maximisation
2. What are the factors to be considered in determining the capital structure of a firm?
3. Define 'capital budgeting'. What are the principles to be kept in mind while identifying the costs and benefits relating to a capital budgeting decision?
4. a) X deposits Rs.50,000 in a bank, which pays 12% interest per annum, compounded half yearly. Calculate the value of the deposit at the end of 5 years.  
b) A owes B Rs.40,000 today. A offers to pay Rs.6,000 today and another Rs.15,000 per year, for the next three years. Should B accept the offer, if his expected rate of interest is 15%?  
c) H buys a car for Rs.2,00,000 by making a down payment of Rs.50,000. The financier charges 12% interest per annum and fixes his annual instalment as follows:

Cost of car	Rs.2,00,000
Less: down payment	<u>Rs. 50,000</u>
Balance due	Rs.1,50,000
Interest @12% p.a. for 4 yrs on balance due	<u>Rs. 72,000</u>
Total due	<u>Rs.2,22,000</u>

Annual instalment payable for 4 yrs  $Rs.222000/4 = Rs.55,500$   
Calculate the effective rate of interest charged by the financier.  
d) X deposits Rs.20,000 in a bank which offers 12% interest per annum. How much can he withdraw every year, so that the deposit value at the end of 10 years will be nil.

5. A plans to acquire a machine costing Rs.60,000. It has a life of 4 years and no salvage value. Sales expected from the use of this machine over the next 4 years are as follows:

<u>Year</u>	<u>Sales(Rs.)</u>
1	50,000
2	60,000
3	55,000
4	40,000

Variable cost is expected to be 50% of sales and fixed cost Rs.5,000 per annum. Depreciation is to be provided under Straight Line Method. If the tax rate is 50%, calculate:

- The payback period
  - Return on average investment
6. Calculate the level of earnings before interest and tax at which the EPS between the following two options would be equal.
- Option 1 – Equity capital of Rs.6,00,000 in shares of Rs.10 each and 12% debentures of Rs.4,00,000
- Option 2 - Equity capital of Rs.4,00,000 in shares of Rs.10 each, 12% debentures of Rs.4,00,000 and 14% preference shares of Rs.2,00,000.

7. S Ltd has Rs.2,00,000 for capital investment. The following projects with the investment required and a profitability index is given below:

<u>Project</u>	<u>Initial investment(Rs.)</u>	<u>Profitability index</u>
A	60,000	1.22
B	30,000	0.95
C	70,000	1.20
D	90,000	1.18
E	40,000	1.20
F	80,000	1.05

Which of the above investments should be undertaken by the firm, assuming:

- Projects are divisible
  - Projects are indivisible
8. A company is considering 2 mutually exclusive projects. It uses the certainty equivalent approach in evaluating the projects. The estimated cash flows and the certainty equivalent of the two projects are as follows:

<u>Year</u>	<u>Project A</u>		<u>Project B</u>	
	<u>Cash flow(Rs.)</u>	<u>CE</u>	<u>Cash flows(Rs.)</u>	<u>CE</u>
0	(30,000)	1	(40,000)	1
1	15,000	0.95	25,000	0.9
2	15,000	0.85	20,000	0.8
3	10,000	0.7	15,000	0.7
4	10,000	0.65	10,000	0.6

Which project should be accepted if the risk free interest rate is 5%?

**SECTION – B****ANSWER ANY THREE QUESTIONS:****( 3 x 20 = 60)**

9. Define Cost of capital and explain its significance in financial decision making. Explain the various methods for computing the cost of equity capital.
10. H Ltd has a production and sales of 15,000 units per annum. Selling price per unit Rs.10, Variable cost is 60% of sales, Fixed cost Rs.30,000. Its capital structure includes 12% debentures of Rs.1,00,000 and 15% preference shares of Rs.20,000. Tax rate is 50%. Calculate:
- Operating leverage, Financial and combined leverage and interpret the results.
  - If sales increases by 20%, what will be the percentage change in EBIT?
  - If sales decreases by 10%, what will be the percentage change in EPS?
  - By what percentage should EBIT change for EPS to be completely wiped out?
  - What is the sales level at which the firm will break even?
  - What is the financial break-even point of the firm?
11. A Ltd is considering the introduction of a new product in the market. This would require the purchase of a machine for Rs.3,50,000 which would have a life of 5 years and a salvage value of Rs.50,000. In addition, Rs.80,000 would be required for working capital. The machine would be depreciated under Straight Line Method. The machine would have a capacity of 1,00,000 units per year. The production and sales for the five years is estimated to be 60%, 80%, 100%, 100% and 75% of capacity respectively. The selling price for the first two years would be Rs.8 per unit and for the next 3 years Rs.10 per unit. The variable cost would be 50% of sales. To manufacture the product the company will require 15,000 sq meters of space. The company currently has 10,000 sq.meters, which has been rented out by the company on an annual rent of Rs.6 per sq meter. The company plans to evict the tenant and use this space for the manufacture of the new product. Additional space required will however have to be rented by the company at Rs.8 per sq.meter per annum. 5% of sales will have to be spent for advertising the product. Fixed cost excluding depreciation would be Rs.30,000 per annum. If cost of capital is 15% and the tax rate is 50%, evaluate the project under NPV method.

12. XYZ Ltd has the following book value capital structure:

	<u>Rs.(lacs)</u>
Equity capital Rs.10 each	10
Retained earnings	5
15% preference capital (Rs.100 each)	4
12% debentures (Rs.100 each)	10
14% term loan	15

The next expected dividend on equity shares is Rs.4 per share. The dividend is expected to grow at the rate of 8% per annum. The market price of the equity share is Rs.40.

Preference shares redeemable at par, after 10 years is currently selling at Rs. 80 per share.

Debentures redeemable after 6 years at par, are selling at Rs.94 per debenture.

Tax rate is 50%.

Calculate Weighted Average Cost of Capital using :

- Book value as weights
- Market value as weights

13. A company's capital structure consists of the following:

	<u>Rs.(lacs)</u>
Equity capital Rs.100 each	20
Retained earnings	10
9% preference shares Rs.100 each	12
7% debentures Rs.100 each	<u>8</u>
Total	<u>50</u>

The company wants an additional fund of Rs.25,00,000 for expansion and has identified the following financing options:

- Issue 20,000 equity shares at a premium of Rs.25 per share
- Issue 8% debentures of Rs.100 each

The company expects to earn an EBIT of Rs.9,00,000 after expansion.

It is estimated that the PE ratio in the case of equity and debenture financing would be 12 and 8 respectively.

Which of the financing options would you recommend? Assume tax rate 50%.

Also calculate the indifference point EBIT between the two options.

