LOYOLA-INTERNATIONAL ACADEMIC COLLABORATION
LOYOLA COLLEGE CHENNAI – 600 034

BBA-FRANCE – END SEMESTER EXAMINATION

SECOND SEMESTER – APRIL 2023

BBA 237 – FINANCIAL MANAGEMENT I

Date : 08-05-2023 Dept. No. Max. : 100 Marks
Time : 01:00 PM - 04:00 PM

PART – A

ANSWER ALL QUESTIONS **(10 X 2 = 20 Marks)**

1. A 10% Rs.1000 bond of X Ltd has a maturity period of 5 years. Interest is paid half yearly. As an investor, whose expected rate is 12% p.a., what price are you prepared to pay for the bond?

2. Risk free rate is 5% p.a. Market rate of return is 12%, and Beta of the share is 1.2. Calculate the cost of equity.

3. An investment of Rs.100 gives a return of 15.5%. If the inflation rate is 5% p.a., what is the real return?

4. The share of a company is currently quoting R$s.50. If the investors required rate is 16% p.a. And the growth rate of dividend is 6% p.a., what is the next dividend?

5. HDFC Bank offers 12% interest per annum on deposits, but calculates interest quarterly. Calculate the effective annual interest.

6. X Ltd maintains a debt equity ratio of 2:3. If the cost of debt before tax is 16% and the cost of equity is 18%, calculate WACC. Assume the tax rate is 40%.

7. A finance company offers to pay you Rs.60,000 at the end of 10 years from now, if you deposit Rs.25,000 today. What rate of interest is the company offering?

8. You borrow a housing loan of Rs.5,00,000 at 12% interest per annum, repayable in 8 equal annual installments. If you decide to repay the loan at the end of the 3rd year, how much should you pay?

9. As a student you are offered 2 options for a scholarship:

   a. Rs.40,000 now

   b. Rs.10,000 immediately, plus Rs.12,000 per year for the next 5 years.

   If the required rate of interest is 12%, which option will you choose?

10. If you open a recurring deposit of Rs.5000/- per year starting now, in a bank which offers 8% interest p.a., what will be the value of your deposit at the end of 10 years from now?

PART – B

ANSWER ANY 5 QUESTIONS **(5 X 10 = 50 Marks)**

11. Explain the following
    a. Debt is cheaper than equity
    b. Reserves are a cost free source of funds.
    c. Define Pay back period, and state its drawbacks

12. A project requires Rs.2,00,000 and yields the following profits before depreciation and tax during its life of 3 years .. Rs.60,000, Rs.1,00,000 and Rs.1,20,000 respectively. The tax rate is 50%. Calculate return on average investment and internal rate of return.

13. XYZ Limited has an average selling price of Rs.50 per unit. Its variable cost is Rs.15 per unit, and fixed costs amount to Rs.8,00,000. It pays 50 per cent tax on its income. Its capital structure consists of 10,000 equity shares of Rs.100 each and Rs.5,00,000 14% debentures, Sales are 1,00,000 units. Calculate the degree of operating leverage, financial leverage, combined leverage and Earnings per share and interpret the results.
    a. If sales increases by 20%, by what percentage will EBIT and EPS increase?
    b. If EPS is wiped out, by what percentage would sales have changed?

14. A Ltd's 12% debenture of Rs.100/- face value is currently quoting Rs.92/-. It has a life of 5 years to maturity. As an investor whose required rate is 16%,
    a. What is the maximum price you would be prepared to pay for the debenture now?
    b. If you decide to buy the debenture at the end of 2 years from now, how much are you prepared to pay?
    c. If you decide to buy the debenture now at the current market price, what is the yield to maturity?

15. An equity share of B Ltd is expected to give dividend of Rs.5/- in the next year. This dividend will grow at 10% per annum for the next 3 years, after which the growth rate will be a constant 6% per annum.
    a. Investors required rate is 12% what will be the price he will be prepared to pay for the share now?
    b. If he decides to buy the share at the end of the second year from now, what is the price he is prepared to pay?

16. A Ltd requires Rs.5,00,000 for a new project. It has identified the following methods of raising the funds.

a. Issue 40,000 equity shares of Rs.10 each and the balance in 14% preference shares of Rs.10/- each.

b. Issue 20,000 equity shares of Rs.10 each and Rs.3,00,000 10% debentures.

Calculate the indifference point EBIT of the two options, assuming tax rate is 50%. Also explain which option will be better if the actual EBIT is (a) more than the indifference point EBIT (b) less that the indifference point EBIT

17. A firm plans to buy a machine. Two models are available.

a. Model A - Cost Rs.4,00,000 and requires annual maintenance cost of Rs.10,000 during its life of 3 years.

b. Model B - Cost Rs.3,50,000 and requires maintenance cost of Rs.20,000, Rs.28,000, Rs.35,000 and Rs.40,000 during its life of 4 years.

Both the machines will have a salvage value equal to 10% of its cost at the end of its life. If cost of capital is 12% p.a., which machine should you buy, assuming (i) if the machines are not to be replaced? (ii) If the machines are to be replaced?

PART – C

ANSWER ANY 2 QUESTIONS **(2 X 15 = 30 Marks)**

18. The existing capital employed by ABC Ltd consists of:

	(Rs.)
Equity capital (Rs.10)	5,00,000
12% Preference capital (Rs.10)	2,00,000
Reserves	1,00,000
10% Debentures	2,00,000
	10,00,000

The existing EBIT of the company is Rs.2,20,000.

The Company is planning an expansion program, which will require an investment of Rs.5,00,000. After expansion the rate of EBIT on the total capital employed is expected to increase by 3%. The company has identified 3 financing options for the expansion.

a. Issue 50,000 Equity shares of Rs.10 each.

b. Issue 20,000 Equity shares of Rs.10 each and the balance by the issue of 12% Debentures.

c. Issue 30,000 Equity shares of Rs.10 each and the balance by the issue of 12% Preference shares of Rs.10 each.

Assuming a tax rate of 50%, which financing option would you recommend, if the P/E ratio under the 3 plans after expansion are 10, 8 and 7 respectively.

19. The following is the capital structure of S Ltd as on 31.12.2015

Equity shares 100 each	Rs.5,00,000
Reserves	Rs.2,00,000
12% Debentures pf Rs.100 each	Rs.3,00,000
14% Preference share capital	Rs.1,00,000
18% State Bank Loan	Rs.4,00,000

The market price of the company share is Rs.80 and the next expected dividend is Rs.12 per share.

The dividend growth rate is expected to be 5% per annum.

Debentures redeemable at the end of 4 years at par, are currently selling at Rs.92

Preference shares redeemable 10 years from now are currently selling at Rs.90..

Assuming the tax rate is 50%, calculate weighted average cost of capital using **book value** and **market value** as weights.

20. A Ltd is planning to introduce a new product "X" in the market, after conducting a market survey at a cost of Rs.30,000. The new product will require the purchase of a machine costing Rs.4,70,000 and an additional working capital of Rs.1 lakh. The machine will have a life of 5 years and a scrap value of Rs.70,000 at the end of its life. Depreciation is to be provided under straight line method. Tax rate is 50%. Details of budgeted sales and expenses of the product for the 5 years are given below:

Year	Sales (units)	Selling price per unit(Rs.)	Variable cost per unit(Rs.)	Fixed cost p.a(Rs.)
1	70,000	4	2	40,000
2	90,000	5	3	50,000
3	1,10,000	5	3	50,000
4	1,30,000	6	4	60,000
5	90,000	6	4	80,000

The Fixed Cost per annum given above does not include depreciation, but includes an allocated Fixed Cost of Rs.10,000 per annum. Advertisement per year is 5% of sales. The cost of capital is 16% p.a. Using Net Present Value method, determine whether the new product should be introduced. PV of Re.1 at 16% for the 5 years are respectively 0.86; 0.74; 0.64; 0.55 and 0.48

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