

SEMESTER- V

COURSE- B.COM(P)

PAPER- FUNDAMENTALS OF FINANCIAL MANAGEMENT

QUESTION BANK

Q 1. The objective of financial management is shareholder wealth maximization and not Profit maximization. Comment.

OR

What are the major types of financial decisions that a firm makes? Briefly discuss each one of them.

Q.2 (a) How the financial decisions involve risk return trade off?

(b) Why time value of money is important in financial decision making?

(c) What is an annuity? Give three examples of an annuity.

OR

(a) X deposited Rs.10,000 in a fixed deposit account at 12% p.a. compounded annually for three years. How much amount he will get on maturity.

(b) X deposited Rs.250,000 in a fixed deposit account at 12% p.a. compounded quarterly for three years. How much amount he will get on maturity.

(c) X financed a machine by taking a loan of Rs250000 at 10% p.a. The loan is to be repaid in five equal annual installments starting from the end of the first year. Calculate the amount of equal annual installment.

Q.3 (a) Cash flows are superior to accounting profits for financial decisions. Comment.

(b) Write a note on payback method giving its merits and demerits.

(c) Why capital budgeting decisions are considered critical for the success of firm.

OR

A company is considering the purchase of a machine that will cost Rs.45,000. The machine will have a life of 5 years and it is expected to generate the following cash flows after tax during its life time :

Year	1	2	3	4	5
Cash flows (Rs.)	10,000	15,000	12,000	20,000	25,000

If the firm's cost of capital is 12% calculate Payback period, Net present value and Internal rate of return for the proposal.

- Q4. A machine is available for Rs.1,50,000 and is likely to yield following earnings over Its life of 5 years :

Year	1	2	3	4	5
Earnings (Rs.)	50,000	45,000	40,000	40,000	50,000

The purchase of machine would result in increase in working capital by Rs.15,000.

The machine will be depreciated on straight line method basis and is expected to have a salvage value of Rs.20,000 at the end of its life. The company is subject to a tax rate of 50%. Identify the relevant cash flows from the machine over its life of 5 years.

(showing the initial cash outflow, subsequent cash inflows and terminal cash flow.)

- Q.5 The equity shares of a company are currently being traded at a price of Rs.40. The expected growth rate in dividend payment is 5%. Find the cost of equity capital, if dividend paid last year is : (i) Rs.2. per share. (ii) Rs.5 per share.

- Q6. A company issued 10% debentures of face value of Rs.1,000 each, to be redeemed after 10 years. Issue of debenture involve a flotation cost of 2%. The debenture will finally be redeemed at a premium of 5%. The company's tax rate is 50%. Calculate the cost of debt.

- Q.7. (a) Define leverage. Distinguish between operating leverage and financial leverage.

- (b) A firm has a sales of Rs.10,00,000, variable cost of Rs.6,00,000 and fixed costs of Rs.2,00,000 and debt of Rs.5,00,000 at 12% rate of interest. Calculate the operating, financial and combined leverage.

OR

Discuss the important factors affecting the capital structure of the firm in practice.

- Q8 (a) X financed a car by taking a loan of Rs10,00,000 at 12% p.a. The loan is to be

repaid in five equal annual installments starting from the end of the first year.

Calculate the amount of equal annual installment.

- (b) A machine is available for Rs.1,50,000 and is likely to yield following earnings before tax over its life of 5 years :

Year	1	2	3	4	5
Earnings before tax (Rs.)	50,000	40,000	60,000	45,000	60,000

The purchase of machine would result in increase in working capital by Rs.15,000. The machine will be depreciated on straight line method basis and is expected to have a salvage value of Rs.10,000 at the end of its life. The company is subject to a tax rate of 50%. Identify the relevant cash flows from machine over its life of 5 years, showing initial cash outflow, subsequent cash inflows and terminal cash flow.

- (c) Write a note on payback method giving its merits and demerits.

- (d) A company is considering the purchase of a machine that will cost Rs.50 lakhs.

The machine will have a life of 5 years with zero expected salvage value. It will require additional working capital of Rs. 3,00,000 over its life time and it is expected to generate the following cash flows during its life time :

Year	1	2	3	4	5
Cash flows (Rs.)	10,00,000	15,00,000	12,00,000	20,00,000	25,00,000

If the firm's cost of capital is 10% calculate Payback period and Net Present Value

for the proposal.

Q.9. The following information is available from the balance sheet of a company:

Source	Amount (Rs.)
Equity Share Capital	20,00,000
12% Preference Share Capital	10,00,000
10% Debentures	20,00,000

The company had just paid an equity dividend of Rs.20 per share. The expected growth in dividend is 5% annual. The current market price of equity share is Rs.160. Income tax rate is 50%. Determine the weighted average cost of capital of the company.

- (b) A firm has a sales of Rs.10,00,000, variable cost of Rs.6,00,000 and fixed costs of Rs.2,00,000 and debt of Rs.5,00,000 at 10% rate of interest. Calculate the operating, financial and combined leverage. Also calculate percentage change in EPS if sales is expected to increase by 10%.

Q 10 . A firm's current EBIT is Rs. 10,00,000. At present it has outstanding debt of Rs. 20,00,000 at 10% interest per annum. Its present equity cost is estimated to be 16%. Find out the current value of firm and overall capitalization rate (K_o) using traditional approach.

The firm is considering increasing its leverage by raising additional debt of Rs. 10,00,000 at 12% interest per annum and using the proceeds to reduce the amount of equity. Due to increased financial risk, cost of equity (K_e) is likely to go up to 20%. Would you recommend this plan?

Q. 11 XYZ Ltd. is currently having 10,00,000 equity shares of the face value of Rs. 10 each. It is expected that company will have year end net profit of Rs.5,00,000. Due to recessionary conditions, the company expects 10% return on its investment in future. The equity capitalization rate is 12%. What is the expected price per share according to Gordon Model if the company intends to have a dividend payout of 50%. What should be the optimum payout ratio in such a scenario? What will be the price of the share at that optimum payout

Q 12 What is working capital management and what factors determine the working capital requirement?

Q.13. A firm's projected sales for the year 2014 is 1,00,000 units and the expected selling price is Rs. 40 per unit. Different cost components are expected to be as under:

Raw Material cost per unit	Rs. 10
Labour cost per unit	Rs. 12
Overhead cost per unit	Rs. 8

Raw material remain in stock on an average for 4 weeks, work in progress for 2 weeks and finished goods for 6 weeks. Debtors are allowed 4 weeks credit. Suppliers give 8 weeks credit. Cash sales account for 30% of total sales. A minimum cash balance of Rs. 1,00,000 is to be maintained.

Prepare an estimate of net working capital requirement for the firm for the year 2014.

Q.14 Write notes on the following :

(a) Costs associated with inventory.

- (b) Credit policy.
- (c) Objectives of cash management.

Q.15. Investment, Financing and Dividend decisions are all interrelated. Comment.

OR

Explain the concept of 'profit maximization' and 'wealth maximization'.

Q.16. Compare the following:

- i) NPV Vs. IRR
- ii) Business Risk Vs. Financial Risk.
- iii) Historical Weights Vs. Market Value Weights
- iv) Operating Leverage Vs. Financial Leverage

Q.17. i) 'Cost of retained earning is same as cost of equity.' Comment.

ii) 'Cash flows occurring at different point of time are not comparable.'

Explain the reason and how can they be made comparable.

iii) Factors effecting cost of debt.

Q.18 The marketing department of a firm estimates that 5,000 units of product can be sold annually at a unit sale price (cash) of Rs. 20 each. The cash variable expenses to manufacture the product will be Rs. 12.per unit. It will also involve cash fixed cost of Rs. 6,000 yearly. The machine to manufacture the product is available in the market and it will cost Rs. 60,000. Its expected useful life is 10 years & expected salvage is Rs. 5,000. The installation cost would amount to Rs.10,000. As a result of the acquisition of the machine the working capital requirement will increase by Rs. 20,000. The firm uses the straight-line method (SLM) of depreciation. It is in 30 % tax bracket.

You are required to compute the relevant cash flow (outflow & inflows) associated with the acquisition of the machine.

Q.19. Moongapa Ltd. has a machine with an additional life of 5 years which costs Rs. 10,00,000 and has a book value of Rs. 4,00,000. A new machine costing Rs. 20,00,000 is available. Though its capacity is the same as that of old machine, it will mean a saving variable costs to the extent of Rs. 7,00,000 per annum. The life of the machine will be 5 years

at the end of which it will have a scrap value of Rs. 2,00,000. The income tax is 40 % and a policy the firm does not make an investment if the yield is less than 12 % per annum. The old machine if sold today, will realise Rs. 1,00,000, it will have no salvage value if sold at the end of 5 years. Advice Moongapa Ltd whether or not the old machine should be replaced? Capital gain on sale of old machine is also subject to the same tax at the rate of 40 %.

Q.20. A company is considering which of the two mutually exclusive projects it should undertake. The finance director thinks that the project with the higher NPV should be chosen whereas the managing director thinks that the one with the higher IRR should be undertaken especially as both projects have the same initial outlay and length of life. The company anticipates a cost of capital of 10 % and the net after tax cash flows of the projects are as follows:

(Cash Flows : Rs. `000)

Year	Project X	Project Y
0	(200)	(200)
1	35	218
2	80	10
3	90	10
4	75	4
5	20	3

Calculate NPV and IRR of each project. State with reason, which project you would recommend.

Q.21. You are the financial analyst of a company and you are required to determine the weighted average cost of capital of the company using:

(i) book value weights and (ii) market value weights.

The following information is available for your perusal:

The company's present capital structure is:	Rs.
Preference shares (Rs.100 per share)	2,00,000
Equity shares (Rs.10 per share)	10,00,000

Debentures (Rs. 100 per debenture) 8,00,000

All these securities are traded in the capital market. Recent prices are:

Debentures @ Rs. 110 per debenture

Preference shares @ Rs.120 per shares

Equity shares @ Rs.22 per shares

Anticipated external financing opportunities are

Rs. 100 per debenture redeemable at par; 10 year-maturity, 13 % coupon rate, 4 % flotation costs.

Rs. 100 pref. share redeemable at par; 10 year-maturity, 14 % dividend rate, 5 % flotation costs,

Equity shares: Rs. 2 per share flotation costs,

All the securities can be issued at the prevailing market price.

The dividend expected on the equity shares at the end of year is Rs. 2 and the earning. are expected to increase by 7 % p.a. The firm has a policy of paying all its earning in the form of dividends. The corporate tax rate is 40 %.

Q.22. The following data is available for XYZ Ltd.

	(Amt. Rs.)
Sales	2,00,000
Variable cost @ 30%	<u>60,000</u>
Contribution	1,40,000
Fixed cost	<u>1,00,000</u>
EBIT	40,000
Interest	<u>5,000</u>
Profit before tax	<u>35,000</u>
Find out	

- (a) Using the concept of financial leverage by what percentage will the taxable income increase if EBIT increases by 6%.
- (b) Using the concept of operating leverage by what percentage will EBIT increase if there is 10% increase in sales, and
- (c) Using the concept of leverage by what percentage will the taxable income increase, if the sales increase by 8%.

Also verify the results in view of the above figures.

Q.23. Try Ltd. has a requirement of raising Rs. 2,00,000 for which the following plans are suggested:

	Equity	8% Debt	Pref. Share
Plan A	100%	Nil	Nil
Plan B	50%	50%	Nil
Plan C	50%	Nil	50%

The cost of preference share is estimated to be 8% and the equity shares of face value of Rs. 10 each will be issued at a premium of Rs. 10 each. The expected EBIT of the firm is Rs. 80,000 and the applicable tax rate is 50%. Find out, for each plan the EPS, the financial break-even level and the indifference level of EBIT between Plans A and B and between Plans A and C.

Q 24. X deposited Rs.150,000 in a fixed deposit account at 8% p.a. compounded annually for nine years. How much amount he will get on maturity?

Q25. X took an educational loan of Rs.3,00,000 at 12% p.a. The loan is to be repaid in five equal annual installments starting from the end of the first year. Calculate the amount of equal annual installment.

Q 26. The earnings of a company is Rs.10 per share. The capitalization rate applicable to the company is 10%. If the company's return on investment is 15%, what is the optimum payout ratio using Walter formula? What is the share price at that payout? What will be the share price at a payout of 20%, 50% and 80%

using the Walter formula?

- Q27. ABC Ltd. Has a capital of Rs. 20,00,000 in equity shares of Rs. 100 each. The current market price of these shares is Rs. 120 each. The company proposes to declare a dividend of Rs. 10 per share at the end of current financial year. The capitalization rate for the company's risk class is 10%. Based on Modigliani-Miller approach, calculate the market price per share of the company if:
- dividend is declared.
 - dividend is not declared.

TIME VALUE OF MONEY

Simple vs compound interest:

- Q 1. If you invest Rs. 1000 today at 10% interest rate, what will be its maturity value after 100 Years. (i) Under Simple Interest, (ii) Under compound interest.

Future value of a single sum. :

- Q 2. If you invest Rs. 10,000 today for a period of 5 years, what will be its maturity value if money is compounded annually at interest rates of ;
(i) 8% (ii) 10% (iii) 12% (iv) 15%
- Q 3 How much time it will take for Rs. 10,000 to grow to Rs. 16,000 compounded annually at 8% interest.
- Q 4 A finance company offers to triple my money in 10 years time. What is the effective rate of interest implicit in this offer.

Compounding with non annual periods (intra-year compounding):

- Q 5. How much a deposit of Rs. 1, 00,000 grows at the end of 5 years, if the nominal rate of Interest is 12% and it is compounded (i) annually; (ii) semiannually; (iii) quarterly.
- Q 6. Nominal rate of interest is 12%p.a. Find the effective rate of interest when money is compounding (i) annually; (ii) semiannually; (iii) quarterly; (iv) monthly; (v) daily; (vi) perpetually.

Doubling period :

- Q 7. In how much period your Rs. 10,000 will become Rs. 20,000 at 15% rate of interest compounded annually.

- Q 8. If a bank offers to double our money in 8 years, what is the effective rate of interest.
- Q 9. In how much period your money will double at 15% rate of interest. Give your answer
(i) using rule of 72 (ii) using rule of 69.
- Q 10. How many years will it take for Rs. 5000 invested today at 12% rate of interest to grow
to Rs. 160000? Use rule of 72.

Using compound interest function to find the growth in some financial variables:

- Q 11. A company currently pays a dividend of Rs. 1 per share which is expected to grow to Rs. 3 per share in 10 years. Find the average compound growth rate of dividends.
- Q 12. If you are given a choice between Rs. 4000 now and Rs. 15000 after ten years. Which one
Will you choose if your time preference rate is 12%.
- Q 13. Find the growth rate of sales from 1998 to 2004 from given data:

Year	1998	1999	2000	2001	2002	2004
Sales (in million of Rs.)	50	57	68	79	86	99

Future value of the cash flow stream :

- Q 14. Find the future value of the following cash flow stream at 10% compounded annually at
the end of period t_5 :

Time period	t_0	t_1	t_3	t_4	t_5
Cash flows (in rupees)	10000	20000	30000	10000	20000

Present value of a single cash flow :

- Q 15. Calculate the present value, discounted at 10% of receiving :
(i) Rs. 100000 at the end of year 10.
(ii) Rs. 10000 at the end of year 5.

Present value of a stream of cash flows :

- Q 16. Find the present value of the following cash flow stream at 10% rate of interest :

Year	0	1	2	3	4	5
Sales (Rs.)	-10000	2000	3000	4000	5000	2000

CAPITAL BUDGETING

- A machine purchased six years back for Rs. 1,50,000 has been depreciated to a book value of Rs. 90,000. It originally had a projected life of 15 years with salvage value expected to be nil. There is a proposal to replace this machine. A new machine will cost Rs. 2,50,000 with expected salvage value of Rs. 25,000 after its life of 9 years. The existing machine can now be scrapped away for Rs.50000. The new machine will result in reduction in operating cost by Rs.35,000 every year over the next 9 years. The new machine like old will be depreciated as per straight line method. Find out whether existing machine be replaced given the tax rate applicable for the firm to be 50% and cost of capital 10%.