Financial Management

1. Explain the structure of Indian Financial System with the diagram
2. What is ratio analysis? What are objectives and benefits of ratio analysis?
3. Define working capital. What are the types of working capital?
4. What is financial planning? Explain the steps of financial planning.
5. Define capital budgeting. What are the techniques of capital budgeting?
6. What is the difference between equity share and preference share?
7. What is the difference between share and debenture?
8. Define capital structure. Explain the factors affecting the capital structure.
9. Explain capital structure planning. What are the techniques of capital structure planning?
10. Explain the difference between operating and financial leverage.
11. What is dividend? Explain the types of dividend policy.
12. Following are the particulars pertaining to assets and liabilities of a company.

Liabilities	Rs	Assets	Rs
2500 Equity share of Rs 100 each fully paid up	250000	Land and building	500000
2500 8% preference shares of Rs 100 each fully paid up	250000	Plant and Machinery	400000
Reserves	200000	Inventory	150000
3000 9% Debentures Rs 100 each	300000	Sundry Debtors	100000
Sundry Creditors	150000	Cash and Bank Balances	45000
Bank Overdraft	50000	Prepaid expenses	5000
	1200000		1200000

Calculate the following ratio and offer your comment on the ratio:

- Debt equity ratio
- Current ratio
- Quick ratio

Solution:-

- Debt Equity Ratio = Long term Debt

  Shareholder Equity

1 Long- term Debt = Rs 3, 00,000(Debenture)
2 Shareholder Equity = Equity share + Preference share + Reserve

= 2, 50, 000+2, 50,000+2, 00,000

= Rs 7, 00,000

Debt Equity Ratio = 3, 00, 000

7, 00,000

Debt Equity Ratio = 0.4: 1

- Current Ratio = Current Assets

  Current Liabilities

1 Current Assets = Inventory + Sundry Debtor + Cash and Bank Balance + Prepaid Expenses

= 1, 50,000 + 1, 00,000 + 45,000 + 5,000

= 3, 00,000

2 Current Liabilities = Sundry Creditor + Bank Overdraft
= 1, 50,000 + 50,000
=2, 00,000

Current Ratio = 3, 00,000

2, 00,000

Current Ratio = 1.5 or 1.5: 1

- Quick ratio = Quick Assets

  Quick Liabilities

1 Quick Assets = Current Assets – (Inventory + Prepaid Expenses)

= 3, 00,000 – (1, 50,000 +5,000)

=1, 45,000

2 Quick Liabilities = Current Liabilities - Bank Overdraft

= 2, 00,000 – 50,000

= 1, 50,000

Quick Ratio = $\frac{1,\ 45,000}{1,\ 50,000}$

Quick Ratio = 0.966 or 0.96: 1

13. From the following data , prepare a statement showing working capital requirement for the year 2015
    - Estimated output for the year 130000 unit (52 weeks)
    - Stock of raw materials 2 weeks and material in process for 2 weeks and overheads are incurred
    - Finished goods remain in storage for 2 weeks
    - Creditors 2 weeks
    - Debtors 4 weeks
    - Outstanding wages and overheads 2 weeks each
    - Selling prices per unit Rs 15
    - Analysis of cost per unit is as below

Raw material	Rs 5 per unit
Labour	Rs 3 per unit
Overheads	Rs 2 per unit
Profit	Rs 5 per unit

Assume the operations are evenly spread throughout the year.

Solution:-

Estimation of Working capital Requirement

Particulars	**Rs**
A) Current Assets	
1 Stock of raw material (2 weeks)(1,30,000 X 5 X 2/52)	25,000
2 Stock of material in process	
• Raw Material (2 week) (1,30,000 X 5 X 2/52) 25,000	

• Direct Labour (50% Completion) (1,30,000 X 3 X 2/52 X 50/100) 7,500	
• Overheads (50% Completion) (1,30,000 X 2 X 2/52 X 50/100) 5,000	37,500
3 Stock of finished goods (2 weeks) (1,30,000 X 10 X 2/52)	50,000
4 Debtors at cost (4 weeks)(1,30,000 X 10 X 4/52)	1,00,000
Total Current Assets (A)	**2,12,500**
B) Current Liabilities	
1 Creditors (2 weeks)(1,30,000 X 5 X 2/52)	25,000
2 Outstanding Wages (1,30,000 X 3 X 2/52)	15,000
3 Overheads Wages (1,30,000 X 2 X 2/52)	10,000
Total Current Assets (B)	**50,000**
Net Working Capital Required (A-B)	**1,62,500**

14. Prepare proforma income statement for the month of January, February and March 2016 for Bharat motors from the information given below:

- Sales are projected at Rs 2,00,000, Rs 250000 and Rs 3,00,000 for January, February and March, 2016 respectively
- Cost of goods sold are estimated at Rs 1,00,000, Rs 1,20,000 and Rs 1,30,000 for January, February and March, 2016 respectively.
- Selling expenses are estimated to be 5% of the value of sales
- Rent is Rs 7,000 per month, administrative expenses for January 2016 are expected to be Rs 50,000 but an increase of 2% per month over the previous month's administrative expenses is projected.
- The company has Rs 1, 00,000 of 10% loan, interest payable monthly.
- Corporate tax rate is 50%.

Solution:-

Proforma Income Statement

For the month of January, February and March, 2016

Particulars	January(Rs)	February(Rs)	March(Rs)
A) Sales	2,00,000	2,50,000	3,00,000
Less: Cost of Goods Sold	1,00,000	1,20,000	1,30,000
Gross Profit(A)	**1,00,000**	**1,30,000**	**1,70,000**
B) Operating Expenses:			
Administrative expenses	50,000	51,000	52,020
Rent	7,000	7,000	7,000
Selling expenses	10,000	12,500	15,000

Total Operating Expenses(B)	**67,000**	**70,500**	**74,020**
Profit Before Interest and Tax (A-B):	**33,000**	**59,500**	**95,980**
Less: Interest	10,000	10,000	10,000
Profit Before Tax	23,000	49,500	85,980
Tax (50%)	11,500	24,750	42,990
Profit After Tax	**11,500**	**24,750**	**42,990**

15. A project costs Rs 1, 00,000 and yields an annual cash inflow of Rs 20,000 for 8 years. Calculate its payback period.

Solution:-

The Payback period for the project is as follow

Payback Period = Initial Outflow of the project = 1, 00,000 = 5 Years

Annual Cash Inflow 20,000

16. A company is considering an investment proposal to install a new milling control at a cost of Rs 50,000. The facility has a life expectancy of 5 years without any salvage value. The firm uses SLM of depreciation and the same is used for tax purposes. The tax rate is assumed to be 35%. The estimated cash flows before depreciation and tax (CFBDT) from the investment proposal are as follows:
Compute:

Year	1	2	3	4	5
CFBDT	10,000	10,692	12,769	13,462	20,385

Compute:

- Payback period
- Average rate of return
- NPV at 10% discount rate
- Profitability index at 10% discount rate.

Solution:-

Years	Cash Flow Before Depreciation and Tax (CFBDT)	Depreciation	Cash Flow After Depreciation (CFAD)	Tax at 35%	Cash Flow After Depreciation and Tax (CFADT)	Cash Flow Before Depreciation and After Tax (CFBDAT)	Cumulative CFBDAT	PV at 10%	Present Value CFBDAT
1	10,000	10,000	NIL	NIL	NIL	10,000	10,000	0.909	9,090
2	10,692	10,000	692	242	450	10,450	20,450	0.826	8,632
3	12,792	10,000	2,792	969	1,800	11,800	32,250	0.751	8,862
4	13,462	10,000	3,462	1,212	2,250	12,250	44,500	0.683	8,367
5	20,385	10,000	10,385	3,635	6,750	16,750	61,250	0.621	10,401
	Total Present Value								**45,352**

17. Determine the values of the firms A and B under the Traditional Approach from the following equilibrium valued of two firms belonging to the homogenous risk class according to the NOI Approach.

- The Cost of Equity (Ke) for Firm A is 14 %, and
- The Cost of Equity (Ke) for Firm B is 11%.

Particulars	Firm A (Rs)	Firm B (Rs)
Earnings before Interest and Tax (EBIT)	50,000	50,000
Less: Interest	10,000	-
Earnings available for Equity Shareholders (NI)	40,000	50,000
Equilibrium Cost of Capital (Ko)	0.125	0.125
Total Value of the Firm (V)	4,00,000	4,00,000
Market Value of Debt (D)	2,00,000	-
Market Value of Equity (S) = V-D	2,00,000	4,00,000
Cost of Equity (Ke)	20%	12.5%

Solution:-

Statement showing the total value of the firm

Particular	Firm A (Rs)	Firm B (Rs)
Earnings before Interest and Tax (EBIT)	50,000	50,000
Less:- Interest	10,000	-

Earnings available for Equity Shareholders (NI)	40,000	50,000
Equity Capitalisation Rate (Ke)	0.14	0.11
Market Value of Equity (S)	2,85,714	4,54,545
Market Value of Debt (D)	2,00,000	-
Total Value of Firm	**4,85,714**	**4,54,545**

As per the Tradition Approach the value of the levered firm will be more than that of unlevered firm up to the equilibrium point. Hence, the market value of firm A is more than that of Firm B

18. Determine the EPS of a textile company which has EBIT of Rs 1,60,000. Its capital structure consists of the following securities.

Particulars	RS
10% Debentures	5,00,000
12% Preference shares	1,00,000
Equity shares (of 100 each)	4,00,000

The company is in the 35% tax bracket.

- Determine the firms EPS.
- Determine the percentage change in EPS associated with 30% increase and 30% decrease in EBIT.

Solution:-

1. Determination of EPS

Particulars	**Rs**
Earnings Before Interest and Tax(EBIT)	1,60,000
Less:-Interest (0.10 X 5,00,000)	50,000
Earning Before Tax (EBT)	1,10,000
Less:-Tax (0.35 X 1,10,000)	38,500
Earning After Tax (EAT)	71,500
Less :- Dividends on preference share (12% X 1,00,000)	12,000
Earnings Available to equity shareholders	59,500
Number of Equity Share	4,000
Earning Per Share(EPS)(59,500/4,000)	14.88

2. Change in EPS

Particulars	**Changes in EBIT**

	(+30%)	(-30%)
Earnings Before Interest and Tax(EBIT)	2,08,000	1,12,000
Less:- Interest	50,000	50,000
Earning Before Tax (EBT)	1,58,000	62,000
Less:- Taxes	55,300	21,700
Earnings After Tax (EAT)	1,02,700	40,300
Less:-Dividend on Preference share (12,000)	12,000	12,000
Earnings available to equity shareholder	90,700	28,300
Number of equity shares	4,000	4,000
Earnings per share EPS= Amount for equity shares/ No of Equity shares	22.68	7.06
Percentage Change in EPS (EPS/EPS) X 100	**(52.44%)**	**(-52.44%)**

19. X Ltd Present the following capital structure data:

Source	Rs
Ordinary share (1000 shares)	50,000
10% Preference share	20,000
12% Debentures	15,000
	85,000

The dividend payment of the company is @ of 5%. Further the company raises additional funds for replacement of assets of 14% debenture amounting Rs 10,000

You are ask to find out: Weighted Average Cost of Capital of existing as well as new capital structure.

Solution:-

Computation of Weighted Average Cost of Capital (Ko)

Source (1)	**Amount (Rs) (2)**	**Weight (3)**	**After Tax Cost (%) (4)**	**Weighted Cost (%) (5)= (3) X (4)**
Ordinary Share	50,000	0.59	5%	2.95%
Preference share	20,000	0.24	10%	2.4%
Debentures	15,000	0.18	12%	2.16%
	85,000	1.0		7.15%
Weighted Average Cost of Capital (Ko				**7.15%**

Computation of Weighted Average Cost of Capital (Ko)

Source (1)	Amount (Rs) (2)	Weight (3)	After Tax Cost (%) (4)	Weighted Cost (%) (5)= (3) X (4)
Ordinary Share	50,000	0.59	5%	2.5%
Preference share	20,000	0.21	10%	2.1%
12% Debentures	15,000	0.16	12%	1.92%
14% Debentures	10,000	0.11	14%	1.54%
	95,000	1.0		8.06%
Weighted Average Cost of Capital (Ko				**8.06%**

20. ABC Ltd. belongs to a risk class for which the appropriate capitalisation rate is 10%. It currently has outstanding 5,000 shares selling at 100 each. The firm is contemplating the declaration of dividend of Rs 6 per share at the end of the current financial year. The company expect to have a net income of Rs 50,000 and has a proposal for making new investment of Rs 1,00,000. Show that under the MM hypothesis, the payment of dividend does not affect the value of the firm

Solution:-

1) Value of the firm when dividends are paid:

i) Price of the share at the end of the current financial year.

$P1 = Po(1 + Ke) – D1$

Where,

Market price per share at the beginning of the period (P0)=Rs 100

Dividend to be received at the end of the period D1 = Rs 6 per share

Cost of equity capital (Ke) = 10 % or 0.10

Market price per share at the end of the period (P1) = 100(1+0.10)-6= 100 X 1.10 - 6 = 110 - 6= Rs104

ii) Number of shares to be issued.

m = I - (E – nD1) / P1

Where

Investment required (I)= Rs 1,00,000

Total earnings of the firm during the period (E) = Rs 50,000

Number of shares outstanding at the beginning of the period (n) = 5000 outstanding shares

Dividend to be received at the end of the period (D1)= Rs6

Market price per share at the end of the period (P1) = Rs 104

Number of shares to be issued (m) = 1,00,000-(50,000-5,000×6) / 104

= 80,000 /104

= 769.23 Shares

iii) Value of the firm

Value of the firm (nPo) = (n+m) P1 – (I-E)/1+Ke

Number of shares outstanding at the beginning of the period (n) = 5,000

Number of shares to be issued (m) = 769.23

Market price per share at the end of the period (P1) = Rs 110

Investment required (I) = Rs 1,00,000

Total earnings of the firm during the period (E) = Rs50,000

Cost of equity capital (Ke) = 10% or 0.10

=(5,000 +769.23) X 104 – (1,00,000-50,000)/1+0.10

=(5,769.23) X 104 – (50,000)/1.10

=6,00,000- 50,000/1.10

=5,50,000/1.10

=Rs 5,00,000

2) Value of the firm when dividends are not paid:

i) Price of the share at the end of the current financial year.

$P1 = Po(1 + Ke) – D1$

Where,

Market price per share at the beginning of the period (P0)=Rs 100

Dividend to be received at the end of the period D1 = 0

Cost of equity capital (Ke) = 10 % or 0.10

Market price per share at the end of the period (P1) = 100(1+0.10)-0= 100 X 1.10 = Rs 110

ii) Number of shares to be issued.

$m = I - (E – nD1) / P1$

Where

Investment required (I)= Rs 1,00,000

Total earnings of the firm during the period (E) = Rs 50,000

Number of shares outstanding at the beginning of the period (n) = 5000 outstanding shares

Dividend to be received at the end of the period (D1)= 0

Market price per share at the end of the period (P1) = Rs 110

Number of shares to be issued (m) = 1,00,000-(50,000-0) / 110

= 50,000 /110

= 454.54 Shares

iii) Value of the firm

Value of the firm (nPo) = (n+m) P1 – (I-E)/1+Ke

Number of shares outstanding at the beginning of the period (n) = 5,000

Number of shares to be issued (m) = 454.54

Market price per share at the end of the period (P1) = Rs 110

Investment required (I) = Rs 1,00,000

Total earnings of the firm during the period (E) = Rs50,000

Cost of equity capital (Ke) = 10% or 0.10

=(5,000 +454.54) X 110 – (1,00,000-50,000)/1+0.10

=(5,454.54) X 110 – (50,000)/1.10

=6,00,000- 50,000/1.10

=5,50,000/1.10

=Rs 5,00,000

Hence, whether dividends are paid or not, the value of the firm remains the same Rs 5,00,000.