



FM Key Terms

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&

Ratio Summary

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CA—IPCC

1st Group

3rd Paper

8 hours Targeted Revision

Financial Management

71 IMP simplifying Questions

Compiled by—Aakesh Mukesh Agarwal

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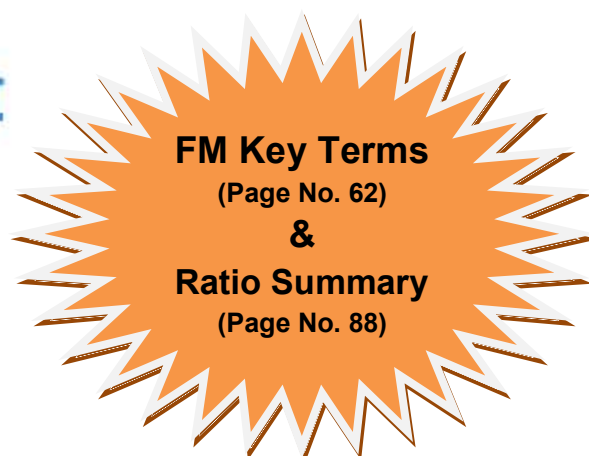
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Chapter-wise Time allocation and Rating

	Topics	Revision Time (in Minutes)	Rating
1.	Basic of FM	15	★
2.	Capital Budgeting	70	★★★★★
3.	Capital Structure	50	★★★★★
4.	Cash Flow Statement	55	★★★★★
5.	Cost of Capital	20	★★★★★
6.	Fund Flow Statement	30	★★★★★
7.	Leverage	15	★★★★★
8.	Ratio Analysis	40	★★★★★
9.	Source of Finance	35	★★★★
10.	Time Value of Money	15	★★
11.	Working Capital Management – Basic	10	★★
12.	Working Capital Management – Cash Management	30	★★★
13.	Working Capital Management – Inventory Management	10	★★★
14.	Working Capital Management – MPBF – Tandon Committee	10	★★★
15.	Working Capital Management – Operating Cycle	10	★★★
16.	Working Capital Management – Projected Statement	30	★★★★★
17.	Working Capital Management – Receivable Management	15	★★★
18.	Working Capital Management – Receivable – Factoring	20	★★★★★
		480	
		(8 Hours)	

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– Mukesh Agarwal



CA-IPCC (1st Group)

FINANCIAL MANAGEMENT

71 IMP QUESTIONS



	Questions and Solutions / Hints	Chapter
AEC Q.1.	Differentiate between the Profit maximization and Wealth maximization. <u>Solution / Hint :</u> Profit Maximisation and Wealth Maximisation The two most important objectives of financial management are as follows: 1. Profit maximization 2. Value maximization Objective of profit maximization: Under this objective the financial manager's sole objective is to maximize profits. The objective could be short-term or long term. Under the short-term objective the manager would intend to show profitability in a short run say one year. When profit maximization becomes a long-term objective the concern of the financial manager is to manage finances in such a way so as to maximize the EPS of the company. Objective of value maximization: Under this objective the financial manager strives to manage finances in such a way so as to continuously increase the market price of the company's shares. Under the short-term profit maximization objective a manager could continue to show profit increased by merely issuing stock and using the proceeds to invest in risk-free or near to risk-free securities. He may also opt for increasing profit through other non-operational activities like disposal of fixed assets etc. This would result in a consistent decrease in the shareholders profit – that is earning per share would fall. Hence it is commonly thought that maximizing profits in the long run is a better objective. This would increase the Earning Per Share on a consistent basis. However, even this objective has its own shortcomings, which are as follows: ➔ It does not specify the timing of duration of expected returns, hence one cannot be sure whether an investment fetching a Rs. 10 lakhs return after a period of five years is more or less valuable than an investment fetching a return of Rs. 1.5 lakhs per year for the next five years. ➔ It does not consider the risk factor of projects to be undertaken; in many cases a highly levered firm may have the same earning per share as a firm having a lesser percentage of debt in the capital structure. In spite of the EPS being the same the market price per share of the two companies shall be different. ➔ This objective does not allow the effect of dividend policy on the market price per share; in order to maximize the earning per share the companies may not pay any dividend. In such cases the earning per share shall certainly increase, however the market price per share could as well go down. ➔ For the reasons just given, an objective of maximizing profits may not be the same as maximizing the market price of	Basic of FM

share and hence the firm's value. The market price of a firm's share represents the focal judgment of all market participants as to the value of the particular firm. It takes into account present as well as futuristic earnings per share; the timing, duration and risk of these earnings; the dividend policy of the firm; and other factors that bear upon the market price of the share. The market price serves as a barometer of the company's performance; it indicates how well management is doing on behalf of its shareholders. Management is under continuous watch. Shareholders who are not satisfied may sell their shares and invest in some other company. This action, if taken, will put downward pressure on the market price per share and hence reduce the company's value.

AEC Q.2. Differentiate between Traditional Phase and Modern Phase of Financial Management.

Basic of FM

Solution / Hint :

Traditional Phase and Modern Phase of Financial Management

During the **Traditional Phase**, financial management was considered necessary only during occasional events such as takeovers, mergers, expansion, liquidation, etc. Also, when taking financial decisions in the organisation, the needs of outsiders (investment bankers, people who lend money to the business and other such people) to the business was kept in mind.

Whereas, on the other hand, **Modern Phase** is still going on. The scope of financial management has greatly increased now. It is important to carry out financial analysis for a company. This analysis helps in decision-making. During this phase, many theories have been developed regarding efficient markets, capital budgeting, option pricing, valuation models and also in several other important fields in financial management.

AEC Q.3. Write short notes on the Role of Chief Financial Officer (CFO).

Basic of FM

Solution / Hint :

Role of Chief Financial Officer (CFO)

A new era has ushered during the recent years for chief financial officers. His role assumes significance in the present day context of liberalization, deregulation and globalisation. The chief financial officer of an organisation plays an important role in the company's goals, policies, and financial success. His responsibilities include:

- i. **Financial Analysis and Planning:** Determining the proper amount of funds to employ in the firm, i.e. designating the size of the firm and its rate of growth.
- ii. **Investment Decisions:** The efficient allocation of funds to specific assets.
- iii. **Financing and Capital Structure Decisions:** Raising funds on favourable terms as possible i.e. determining the composition of liabilities.
- iv. **Management of Financial Resources (such as working capital).**
- v. **Risk Management:** Protecting assets.

AEC Q.4. Differentiate between Financial Lease and Operating Lease.

Capital Budgeting

Solution / Hint :

Financial Lease and Operating Lease

	Financial Lease	Operating Lease
1.	The risk and reward incident to ownership are passed on to the lessee. The lessor only remains the legal owner of the asset.	The lessee is only provided the use of the asset for a certain time. Risk incident to ownership belongs wholly to the lessor.
2.	The lessee bears the risk of obsolescence.	The lessee is only provided the use of asset for a certain time. Risks incidental to ownership belongs wholly to the lessor.
3.	The lessor is interested in his rentals and not in the asset. He must get his principal back along with interest. Therefore, the lease is non-cancellable by either party.	As the lessor does not have difficulty in leasing the same asset to other willing lessee, the lease is kept cancellable by the lessor.
4.	The lessor enters into the transaction only as financier. He does not bear the cost of repairs, maintenance or operations.	Usually, the lessor bears the cost of repairs, maintenance or operations.
5.	The lease is usually fully paid out, that is, the single lease repays the cost of the asset together with the interest.	The lease is usually non-payout, since the lessor expects to lease the same asset over and over again to several users.

AEC Q.5. Explain the limitations of Capital Rationing.

**Capital
Budgeting**

Solution / Hint :**Limitations of Capital Rationing**

- (i) In capital rationing it may also be more desirable to accept several small investment proposals than a few large investment proposals so that there may be full utilisation of budgeted amount. This may result in accepting relatively less profitable investment proposals if full utilisation of budget is a primary consideration.
- (ii) Capital rationing may also mean that the firm foregoes the next most profitable investment following after the budget ceiling even though it is estimated to yield a rate of return much higher than the required rate of return. Thus capital rationing does not always lead to optimum results.

AEC Q.6. Write short notes on Merits of Payback Period.

**Capital
Budgeting**

Solution / Hint :**Merits of Payback Period**

- (i) This method of evaluating proposals for capital budgeting is quite simple and easy to understand. It has the advantage of making it clear that there is no profit on any project unless the payback period is over. Further, when funds are limited, they may be made to do more by selecting projects having shorter payback periods. This method is particularly suitable in the case of industries where the risk of technological obsolescence is very high. In such industries, only those projects which have a shorter payback period should be financed since the change in technology would make the projects totally obsolete before their costs are recovered.
- (ii) In the case of routine projects also use of payback period method favours projects which generate cash inflows in earlier years, thereby eliminating projects bringing cash inflows in later years which generally are conceived to be risky as risk tends to increase with futurity.
- (iii) By stressing earlier cash inflows, liquidity dimension is also considered in the selection criterion. This is important in situations of liquidity crunch and high cost of capital.
- (iv) The payback period can be compared to a break-even

point, the point at which the costs are fully recovered but profits are yet to commence.

- (v) The risk associated with a project arises due to uncertainty associated with the cash inflows. A shorter payback period means that the uncertainty with respect to the project is resolved faster.

AEC Q.7.

Zubair Electronics is considering the proposal of taking up a new project which requires an investment of Rs. 400 lakhs on machinery and other assets. The project is expected to yield the following earnings (before depreciation and taxes) over the next five years:

Year	Earnings (Rs. in lakhs)
1	160
2	160
3	180
4	180
5	150

The cost of raising the additional capital is 12% and assets have to be depreciated at 20% on 'Written Down Value' basis. The scrap value at the end of the five years' period may be taken as zero. Income-tax applicable to the company is 50%.

You are required to calculate the net present value of the project and advise the management to take appropriate decision. Also calculate the Internal Rate of Return of the Project.

Note: Present value of Re. 1 at different rates of interest is as follows:

Year	10%	12%	14%	16%
1	0.91	0.89	0.88	0.86
2	0.83	0.80	0.77	0.74
3	0.75	0.71	0.67	0.64
4	0.68	0.64	0.59	0.55
5	0.62	0.57	0.52	0.48

Solution / Hint :

(i) Calculation of Net Cash Flow

(Rs. in lakhs)					
Year	Profit before dep. and tax	Depreciation (20% on WDV)	PBT	PAT	Net cash flow
(1)	(2)	(3)	(4)	(5)	(3) + (5)
1	160	$400 \times 20\% = 80$	80	40	120
2	160	$(400 - 80) \times 20\% = 64$	96	48	112
3	180	$(320 - 64) \times 20\% = 51.2$	128.8	64.4	115.6
4	180	$(256 - 51.2) \times 20\% = 40.96$	139.04	69.52	110.48
5	150	$(204.8 - 40.96) = 163.84^*$	-13.84	-6.92	156.92

*including depreciation and loss on disposal of assets.

(ii) Calculation of Net Present Value (NPV)

(Rs. in lakhs)							
Year	Net Cash Flow	12%		14%		16%	
		D.F	P.V	D.F	P.V	D.F	P.V
1	120	.89	106.8	.88	105.60	.86	103.2
2	112	.80	89.6	.77	86.24	.74	82.88
3	115.6	.71	82.08	.67	77.45	.64	73.98
4	110.48	.64	70.70	.59	65.18	.55	60.76
5	156.92	.57	<u>89.44</u>	.52	<u>81.60</u>	.48	<u>75.32</u>
			438.62		416.07		396.14

**Capital
Budgeting**

Less: Initial Investment	400.00	400.00	400.00
NPV	38.62	16.07	(3.86)

(iii) **Advise:** Since Net Present Value of the project is maximum at 12% = 38.62 lakhs, therefore the project should be implemented.

(iv) **Calculation of Internal Rate of Return (IRR)**

$$\begin{aligned} \text{IRR} &= 14\% + \frac{16.07 \times 2\%}{16.07 - (-3.86)} \\ &= 14\% + \frac{32.14}{19.93} \\ &= 14\% + 1.61\% = 15.61\% \end{aligned}$$

AEC Q.8.

You are required to compute the internal rate of return (IRR) of the project given below and advise whether the project should be accepted if the company requires a minimum return of 17%.

Time	Rs.
0	(4,000)
1	1,200
2	1,410
3	1,875
4	1,150

Solution / Hint :

Calculation of Internal Rate of Return (IRR)

Total receipts are Rs. 5,635 giving a total profit of Rs. 1,635 and average profit of Rs. 409. The average investment is Rs. 2,000. The ARR is Rs. 409 ÷ Rs. 2,000 = 20%. Two thirds of the ARR is approximately 14%. The initial estimate of the IRR that we will take is 14%.

Time	Cash flow Rs.	Discount factor at 14%	PV Rs.	Discount factor at 16%	PV Rs.
0	(4,000)	1.000	(4,000)	1.000	(4,000)
1	1,200	0.877	1,052	0.862	1,034
2	1,410	0.769	1,084	0.743	1,048
3	1,875	0.675	1,266	0.641	1,202
4	1,150	0.592	681	0.552	635
		NPV	83	NPV	(81)

The IRR must be less than 16%, but higher than 14%. The NPVs at these two costs of capital will be used to estimate the IRR.

Using interpolation, we calculate IRR :

$$\begin{aligned} \text{IRR} &= 14\% + \left[\frac{83}{(83 + 81)} \times (16\% - 14\%) \right] \\ &= 14\% + \left[\frac{83}{164} \times 2\% \right] \\ &= 14\% + 1.01\% = 15.01\% \end{aligned}$$

Advise: The IRR is 15%. The project should be rejected as the IRR is less than the minimum return required by the company.

AEC Q.9.

Given below are the data on a capital project 'X' for Theta Limited for your consideration:

Annual Cost Saving	Rs. 60,000
Useful Life	4 years
Internal Rate of Return	15 %
Profitability Index	1.064
Salvage Value	0

You are required to calculate for the Project X:

- Cost of Project
- Payback Period

**Capital
Budgeting**

**Capital
Budgeting**

(iii) Cost of Capital

(iv) Net Present Value.

The following discount factor table is given for your use:

Discount factor	15%	14%	13%	12%
1 year	0.869	0.877	0.885	0.893
2 years	0.756	0.769	0.783	0.797
3 years	0.658	0.675	0.693	0.712
4 years	0.572	0.592	0.613	0.636
	2.855	2.913	2.974	3.038

Solution / Hint :**(i) Cost of Project 'X'**

At 15% internal rate of return (IRR), the Sum of total cash inflows = Cost of the project i.e Initial cash outlay

Annual Cost Savings = Rs. 60,000

Useful life = 4 years

Considering the discount factor table @ 15%, cumulative present value of cash inflows for 4 years is 2.855

Hence, Total Cash inflows for 4 years for Project X is

$$60,000 \times 2.855 = \text{Rs. } 1,71,300$$

Hence, Cost of the Project = Rs. 1,71,300

(ii) Payback Period

$$\begin{aligned} \text{Pay back period} &= \frac{\text{Cost of the Project}}{\text{Annual Cost Savings}} \\ &= \frac{\text{Rs. } 1,71,300}{60,000} \end{aligned}$$

$$\text{Payback Period} = 2.855 \text{ years}$$

(iii) Cost of Capital

$$\text{Profitability index} = \frac{\text{Sum of Discounted Cash inflows}}{\text{Cost of the Project}}$$

$$1.064 = \frac{\text{Sum of Discounted Cash inflows}}{1,71,300}$$

$$\therefore \text{Sum of Discounted Cash inflows} = \text{Rs. } 1,82,263.20$$

Since, Annual Cost Saving = Rs. 60,000

$$\text{Hence, cumulative discount factor for 4 years} = \frac{\text{Rs. } 1,82,263.20}{60,000}$$

From the discount factor table, at discount rate of 12%, the cumulative discount factor for 4 years is 3.038

Hence, Cost of Capital = 12%

(iv) Net Present Value (NPV)

NPV = Sum of Present Values of Cash inflows – Cost of the Project

$$= \text{Rs. } 1,82,263.20 - 1,71,300$$

$$= \text{Rs. } 10,963.20$$

Net Present Value = Rs. 10,963.20

AEC Q.10.

Gamma Limited is considering three projects A, B and C. The cash flows associated with the projects are given below:

Cash flows associated with the Three Projects (Rs.)

Project	C ₀	C ₁	C ₂	C ₃	C ₄
A	(5,000)	1,000	1,000	3,000	0
B	(1,000)	0	1,000	2,000	3,000
C	(5,000)	1,000	1,000	3,000	5,000

You are required to:

- Calculate the Payback period of each of the three projects.
- If the cut-off period is two years, then which projects should be accepted?
- Projects with positive NPVs if the opportunity cost of capital is 10 percent.
- "Payback gives too much weight to cash flows that occur after the cut-off date". True or false?
- "If a firm used a single cut-off period for all projects, it is likely to accept too many short-lived projects." True or false?

Solution / Hint :**(a) Computation of Payback Periods**

Year	Project A		Project B		Project C	
	Cash flows	Cumulative Cash flows	Cash flows	Cumulative Cash flows	Cash flows	Cumulative Cash flows
1	1,000	1,000	0	0	1,000	1,000
2	1,000	2,000	1,000	1,000	1,000	2,000
3	3,000	5,000	2,000	3,000	3,000	5,000
4	0	5,000	3,000	6,000	5,000	10,000

When projects cash flows are not uniform, then Payback period is calculated by the process of cumulative cash flows till the time when the cumulative cash flows become equal to the original investment. Taking this into consideration, therefore, the Payback Periods for Projects A, B and C are:

Payback Period for Project A = 3 years,

Payback Period for Project B = 2 years, and

Payback Period for Project C = 3 years.

- If cut-off period is 2 years then, Project B should be accepted.

(c) Computation of Net Present Values (NPVs) of Projects A, B and C

Year	Discount factor @10%	Project A		Project B		Project C	
		Cash flows	Present Value of Cash flows	Cash flows	Present Value of Cash flows	Cash flows	Present Value of Cash flows
0		(5,000)		(1,000)		(5,000)	
1	0.909	1,000	909	0	0	1,000	909
2	0.826	1,000	826	1,000	826	1,000	826
3	0.751	3,000	2,253	2,000	1,502	3,000	2,253
4	0.683	0	0	3,000	2,049	5,000	3,415
			<u>3,988</u>		<u>4,377</u>		<u>7,403</u>
		NPV	(1,012)		3,377		2,403

Advise: Projects B and C should be accepted as they have positive net present values. (NPV_B = Rs. 3,377; NPV_C = Rs. 2,403)

- False.
- True.

Capital
Budgeting

AEC Q.11.

Beetal Limited is trying to decide whether to buy a machine for Rs. 80,000 which will save costs of Rs. 20,000 per annum for 5 years and which will have a resale value of Rs. 10,000 at the end of 5 years. If it is the company's policy to undertake projects only if they are expected to yield a return of 10 percent or more, you are required to advise Beetal Limited whether to undertake this project or not.

Capital
Budgeting

Solution / Hint :**Advise to Beetal Limited based on Internal Rate of Return (IRR)**

Annual depreciation = (80,000 - 10,000) / 5 = Rs. 14,000

Step 1: Calculate the net present value (NPV), using a rate that is two-thirds of the return on investment.

The return on investment would be:

$$\frac{(20,000 - 14,000)}{\frac{1}{2}(80,000 + 10,000)} = \frac{6,000}{45,000} = 13.3\%$$

Two thirds of 13.3% is 8.9% and so we can start by trying 9%

The IRR is the rate for the cost of capital at which the NPV = 0

Year	Cash Flow	PV Factor	PV of Cash flow
	Rs.	9%	Rs.
0	(80,000)	1.000	(80,000)
1-5	20,000	3.890	77,800
5	10,000	0.650	<u>6,500</u>
	NPV		<u>4,300</u>

This is fairly close to zero. It is also positive, which means that the actual rate of return is more than 9%. 9% can be used as one of the two NPVs close to zero.

Step 2: Calculate the NPV, using a rate that is greater than the first rate, as the first rate gave a positive answer. 12% can be tried.

Year	Cash Flow	PV Factor	PV of Cash flow
	Rs.	12%	Rs.
0	(80,000)	1.000	(80,000)
1-5	20,000	3.605	72,100
5	10,000	0.567	<u>5,670</u>
	NPV		<u>(2,230)</u>

This is fairly close to zero and negative. The real rate of return is, therefore, greater than 9% (positive NPV of Rs. 4,300) but less than 12% (negative NPV of Rs. 2,230).

Step 3: Use the two NPV values to estimate the IRR.

The interpolation method assumes that the NPV rises in linear fashion between the two NPVs close to 0. The real rate of return is, therefore, assumed to be on a straight-line between NPV = Rs. 4,300 at 9% and NPV = Rs. 2,230 at 12%.

$$IRR = 9 + \left[\frac{4,300}{4,300 + 2,230} \times (12 - 9) \right] \% = 10.98\% \text{ or } 11\%$$

Advise: If it is Beetal Limited's policy to undertake investments which are expected to yield 10% or more, then this project should be undertaken.

AEC Q.12.

Equipment A has a cost of Rs. 75,000 and net cash flow of Rs. 20,000 per year for six years. A substitute equipment B would cost Rs. 50,000 and generate net cash flow of Rs. 14,000 per year for six years. The required rate of return of both equipments is 11 per cent. Calculate the IRR and NPV for the equipments. Which equipment should be accepted and why?

Solution / Hint :Capital
Budgeting

Calculation of Net Present Value (NPV) and Internal Rate of Return (IRR) for Equipment A and Equipment B**Equipment A:**

$$\text{NPV} = 20,000 \times \text{PVA}_{F_{6,0.11}} - 75,000$$

$$= 20,000 \times 4.231 - 75,000$$

$$= 84,620 - 75,000 = \text{Rs. } 9,620$$

$$\text{IRR} = 20,000 \times \text{PVA}_{F_{6,r}} = 75,000$$

$$\text{PVA}_{F_{6,r}} = 75,000 / 20,000 = 3.75$$

From the present value of an annuity table, we find:

$$\text{PVA}_{F_{6,0.15}} = 3.784$$

$$\text{PVA}_{F_{6,0.16}} = 3.685$$

$$\text{Therefore, IRR} = r = 0.15 + 0.01 \left[\frac{3.784 - 3.75}{3.784 - 3.685} \right]$$

$$= 0.15 + 0.0034$$

$$= 0.1534 \text{ or } 15.34\%$$

Equipment B:

$$\text{NPV} = 14,000 \times \text{PVA}_{F_{6,0.11}} - 50,000$$

$$= 14,000 \times 4.231 - 50,000$$

$$= 59,234 - 50,000 = \text{Rs. } 9,234$$

$$\text{IRR} = 14,000 \times \text{PVA}_{F_{6,r}} = 50,000$$

$$\text{PVA}_{F_{6,r}} = 50,000 / 14,000 = 3.571$$

From the present value of an annuity table, we find:

$$\text{PVA}_{F_{6,0.17}} = 3.589$$

$$\text{PVA}_{F_{6,0.18}} = 3.498$$

$$\text{Therefore, IRR} = r = 0.17 + 0.01 \left[\frac{3.589 - 3.571}{3.589 - 3.498} \right]$$

$$= 0.17 + 0.002 = 0.172 \text{ or } 17.20\%$$

Recommendation: Equipment A has a higher NPV but lower IRR as compared to Equipment B. Therefore, Equipment A should be preferred since the wealth of the shareholders will be maximized.

- AEC Q.13.** Zion Limited is planning for the purchase of a machine that would cost Rs. 1,00,000 with the expectation that Rs. 20,000 per year could be saved in after-tax cash costs if the machine was acquired. The machine's estimated useful life is ten years, with no residual value, and would be depreciated by the straight-line method. You are required to calculate the payback period.

**Capital
Budgeting**

Solution / Hint :**Calculation of Payback Period**

The payback method evaluates investments on the length of time until total amount invested are recouped in the form of cash inflows or cash outflows avoided.

Payback Period = Initial investment ÷ Annual cash inflow of a project

$$= \text{Rs. } 1,00,000 \div \text{Rs. } 20,000$$

$$= 5 \text{ years.}$$

- AEC Q.14.** Differentiate between Debt Financing and Equity Financing

**Capital
Structure**

Solution / Hint :**Debt Financing and Equity Financing**

Financing a business through borrowing is cheaper than using equity. This is because:

- ✓ Lenders require a lower rate of return than ordinary shareholders. Debt financial securities present a lower risk than shares for the finance providers because they have prior claims on annual income

and liquidation.

- ✓ A profitable business effectively pays less for debt capital than equity for another reason: the debt interest can be offset against pre-tax profits before the calculation of the corporate tax, thus reducing the tax paid.
- ✓ Issuing and transaction costs associated with raising and servicing debt are generally less than for ordinary shares.

These are some of the benefits from financing a firm with debt. Still firms tend to avoid very high gearing levels. One reason is financial distress risk. This could be induced by the requirement to pay interest regardless of the cash flow of the business. If the firm goes through a rough period in its business activities it may have trouble paying its bondholders, bankers and other creditors their entitlement.

AEC Q.15. Name the various fundamental principles to be kept in mind while choosing a suitable capital structure.

Capital Structure

Solution / Hint :

Various Fundamental Principles to be kept in mind while choosing a Suitable Capital Structure

While choosing a suitable financing pattern, certain fundamental principles should

be kept in mind like:

- (i) **Cost Principle**
- (ii) **Risk Principle**
 - ➔ Business risk
 - ➔ Financial risk
- (iii) **Control Principle**
- (iv) **Flexibility Principle**
- (v) **Other Considerations**
 - ➔ • Nature of industry
 - ➔ • Timing of issue
 - ➔ • Competition in the industry.

AEC Q.16. Which of the following is an advantage of debt financing?

- (i) Interest and principal obligations must be paid regardless of the economic position of the firm.
- (ii) Debt agreements contain covenants.
- (iii) The obligation is generally fixed in terms of interest and principal payments.
- (iv) Excessive debt increases the risk of equity holders and therefore depresses share prices.

Capital Structure

Solution / Hint :

The requirement is to identify the advantages of debt financing. Answer (iii) is correct because the fixed obligation of interest and principal is an advantage to debt financing. Answers (i), (ii), and (iv) are incorrect because they are all disadvantages of debt financing.

AEC Q.17. The following are the summarised Balance Sheets of Zeta Limited as on 31st March, 2008 and 2009:

Cash Flow Statement

(Rs. in 000')					
Liabilities	31.3.08	31.3.09	Assets	31.3.08	31.3.09
Share Capital	3,900	5,200	Plant & Machinery	3,978	5,525
Reserve and Surplus	1,690	2,600	Land & Building	1,040	1,040
12% Debentures	-	1,300	Investment	130	130
Sundry Creditors	936	1,222	Inventories	676	975
Outstanding Rent	52	65	Sundry Debtors	728	1,131

Income-tax Payable	520	195	Prepaid Selling Expenses	26	52
			Cash at Bank	494	1,677
			Cash in Hand	26	52
	<u>7,098</u>	<u>10,582</u>		<u>7,098</u>	<u>10,582</u>

Profit & Loss Account for the year ended 31st March, 2009

(Rs. in 000')

	Rs.		Rs.
To Opening stock	806	By Sales	6,331
To Purchases	2,080	By Closing Stock	1,105
To Wages	650		
To Gross Profit c/d	<u>3,900</u>		
	<u>7,436</u>		<u>7,436</u>
To Depreciation	390	By Gross Profit b/d	3,900
To Office Expenses	390	By Discount	39
To Rent	130	By Commission	91
To Selling & Distribution Expenses	780	By Dividend	260
To Income Tax	1,040		
To Net Profit c/d	<u>1,560</u>		
	<u>4,290</u>		<u>4,290</u>
To Dividend	650	By Balance b/d	1,690
To Balance c/d	<u>2,600</u>	By Net Profit b/d	<u>1,560</u>
	<u>3,250</u>		<u>3,250</u>

You are required to prepare a Cash flow statement as per AS 3 (revised).

Solution / Hint :**Cash Flow Statement for the year ending 31st March, 2009
[as per AS 3 (revised)]**

(Rs. in '000')

(A) Cash flow from Operating Activities		
Cash from Sales	5,928	
Commission Received	<u>91</u>	
		6,019
Cash Payments		
Cash Purchases	1,755	
Wages	650	
Office Expenses	390	
Rent	117	
Selling and Distribution Expenses	<u>806</u>	
		<u>3,718</u>
		2,301
Less : Tax paid		<u>1,365</u>
Cash flow from Operating Activities (a)		936
(B) Cash flow from Investing Activities		
Purchase of Plant & Machinery	(1,937)	
Dividend Received	<u>260</u>	
Net Cash used in Investing Activities (b)		(1,677)

(C) Cash flow from Financing Activities	
Issue of Shares	1,300
Issue of 12% Debentures	1,300
Dividend Paid	(650)
Net Cash flow from Financing Activities (c)	<u>1,950</u>
Net Increase in Cash and Cash Equivalents during the year (a+b+c)	<u>1,209</u>
Add: Cash and Cash Equivalents at 1-4-2008	<u>520</u>
Cash and Cash Equivalents at 31-3-2009	<u>1,729</u>

Working Notes:**1. Cash Sales**

Cash Sales = Total Sales – Increase in Debtors
= 6,331 – (1,131 – 728)
= 6,331 – 403 = Rs. 5,928

2. Cash Purchases

Cash Purchases = Total Purchases – Increase in Creditors
= 2,080 – (1,222+39 – 936)
= 2,080 – 325 = Rs. 1,755

3. Rent

	Rs.
Rent	130
Add: Rent Outstanding as on 31-3-2008	<u>52</u>
	182
Less: Rent Outstanding as on 31-3-2009	<u>65</u>
	<u>117</u>

4. Tax Payable

Tax Payable A/c			Rs.
	Rs.		Rs.
To Tax Paid	1,365	By Balance b/d	520
To Balance c/d	<u>195</u>	By Profit and Loss A/c	<u>1,040</u>
	<u>1,560</u>		<u>1,560</u>

5. Selling and Distribution Expenses

	Rs.
Selling and Distribution Expenses	780
Add: Prepaid Selling Expenses on 31-3-2009	<u>52</u>
	832
Less: Prepaid Selling Expenses on 31-3-2008	<u>26</u>
	<u>806</u>

AEC Q.18. Differentiate between the Explicit Cost and Implicit Cost.**Cost of Capital****Solution / Hint :****Explicit Cost and Implicit Cost**

The **Explicit cost** of any source of capital may be defined as the discount rate that equals that present value of the cash inflows that are incremental to the taking of financing opportunity with the present value of its incremental cash outflows.

Whereas, on the other hand, **Implicit cost** is the rate of return associated with the best investment opportunity for the firm and its shareholders that will be foregone if the project presently under consideration by the firm was accepted. Opportunity costs are technically referred to as implicit cost of capital.

AEC Q.19. Write short notes on Trading on Equity**Cost of Capital****Solution / Hint :****Trading on Equity**

The term 'trading on equity' is derived from the fact that debts are contracted and loans are raised mainly on the basis of equity capital. Those who provide debt have a limited share in the firm's earnings and hence want to be protected

in terms of earnings and values represented by equity capital. Since fixed charges do not vary with the firm's earnings before interest and tax, a magnified effect is produced on earnings per share. Whether the leverage is favourable in the sense increase in earnings per share more proportionately to the increased earnings before interest and tax depends on the profitability of investment proposals. If the rate of return on investment exceeds their explicit cost financial leverage is said to be positive.

In other words, it can be stated that trading on equity means using borrowed funds to generate returns in anticipation that the return would be more than the interest paid on those funds. Therefore, trading on equity occurs when a company uses bonds, preference shares or any other type of debt to increase its earnings on equity shares. For example, a company may use long term debt to purchase assets that are expected to generate earnings more than the interest on the debt. The earnings in excess of the interest on the debt will increase the earnings of the company's equity shareholders. This increase in earnings indicates that the company was successful in trading on equity.

AEC Q.20.

Vishwabharati Limited has the following book value capital structure:

Equity Capital (in shares of Rs. 10 each, fully paid up - at par)	Rs. 15 crores
11% Preference Capital (in shares of Rs. 100 each, fully paid up - at par)	Rs. 1 crore
Retained Earnings	Rs. 20 crores
13.5% Debentures (of Rs. 100 each)	Rs. 10 crores
15% Term Loans	Rs. 12.5 crores

The next expected dividend on equity shares per share is Rs. 3.60; the dividend per share is expected to grow at the rate of 7%. The market price per share is Rs. 40. Preference share, redeemable after ten years, is currently selling at Rs. 75 per share. Debentures, redeemable after six years, are selling at Rs. 80 per debenture. The Income tax rate for the company is 40%.

You are required to calculate the weighted average cost of capital using:

- Book value proportions; and
- Market value proportions.

Cost of Capital**Solution / Hint :****(a) Statement showing Computation of Weighted Average Cost of Capital by using Book Value Proportions**

Source of Finance	Amount (Book value) (Rs. in crores)	Weight (Book value proportion)	Cost of Capital	Weighted Cost of Capital
		(a)	(b)	(c) = (a) × (b)
Equity capital	15	0.256	0.16 (Refer to working note 1)	0.04096
11% Preference capital	1	0.017	0.1543	0.00262
Retained earnings	20	0.342	0.16 (Refer to working note 2)	0.05472
13.5% Debentures	10	0.171	0.127 (Refer to working note 1)	0.02171
15% term loans	12.5	0.214	0.09 (Refer to working note 3)	0.01926
	<u>58.5</u>	<u>1.00</u>	<u>0.013927</u> (Refer to working note 4)	<u>0.013927</u>
Weighted Average Cost of Capital				13.93%

(b) Statement showing Computation of Weighted Average Cost of Capital by using Market Value Proportions

Source of Finance	Amount (Rs. in crores)	Weight (Market value proportions)	Cost of Capital	Weighted Cost of Capital
		(a)	(b)	(c) = (a) × (b)
Equity capital	60.00	0.739	0.16	0.11824

	(Rs. 1.5 crores x Rs. 40)		(Refer to working note 1)	
11% Preference capital	0.75	0.009	0.1543	0.00138
	(Rs. 1 lakh x Rs. 75)		(Refer to working note 2)	
13.5% Debentures	8.00	0.098	0.127	0.01245
	(Rs. 10 lakhs x Rs. 80)		(Refer to working note 3)	
15% Term loans	12.50	0.154	0.09	0.01386
			(Refer to working note 4)	
	<u>81.25</u>	<u>1.00</u>		<u>0.14593</u>
Weighted Average Cost of Capital				14.59%

Note: Since retained earnings are treated as equity capital for purposes of calculation of cost of specific source of finance, the market value of the ordinary shares may be taken to represent the combined market value of equity shares and retained earnings. The separate market values of retained earnings and ordinary shares may also be worked out by allocating to each of these a percentage of total market value equal to their percentage share of the total based on book value.

Working Notes:

1. *Cost of Equity Capital and Retained Earnings (K_e)*

$$K_e = \frac{D_1}{P_0} + g$$

Where,

K_e = Cost of equity capital

D_1 = Expected dividend at the end of year 1

P_0 = Current market price of equity share

g = Growth rate of dividend

Now, it is given that $D_1 = \text{Rs. } 3.60$, $P_0 = \text{Rs. } 40$ and $g = 7\%$

$$\text{Therefore, } K_e = \frac{\text{Rs. } 3.60}{\text{Rs. } 40} + 0.07$$

$$\text{or } K_e = 16\%$$

2. *Cost of Preference Capital (K_p)*

$$K_p = \frac{D + \left[\frac{F - P}{n} \right]}{\left[\frac{F + P}{2} \right]}$$

Where,

D = Preference dividend

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Obstacles are those frightful things you see when you take your eyes off your goal.




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F = Face value of preference shares

P = Current market price of preference shares

N = Redemption period of preference shares

Now, it is given that D= 11%, F=Rs. 100, P= Rs. 75 and n= 10 years

$$\text{Therefore } K_p = \frac{11 + \left[\frac{\text{Rs. } 100 - \text{Rs. } 75}{10} \right]}{\left[\frac{\text{Rs. } 100 + \text{Rs. } 75}{2} \right]} \times 100$$

$$= 15.43 \%$$

3. Cost of Debentures (K_d)

$$K_d = \frac{r(1-t) \left[\frac{F-P}{n} \right]}{\left[\frac{F+P}{2} \right]}$$

Where,

r = Rate of interest

t = Tax rate applicable to the company

F = Face value of debentures

P = Current market price of debentures

n = Redemption period of debentures

Now it is given that r= 13.5%, t=40%, F=Rs. 100, P=Rs. 80 and n=6 years

$$\text{Therefore, } K_d = \frac{13.5(1-0.40) + \left[\frac{\text{Rs. } 100 - \text{Rs. } 80}{6} \right]}{\left[\frac{\text{Rs. } 100 + \text{Rs. } 80}{2} \right]} \times 100$$

$$= 12.70\%$$

4. Cost of Term Loans (K_t)

$$K_t = r(1-t)$$

Where,

r = Rate of interest on term loans

t = Tax rate applicable to the company

Now, r = 15% and t= 40%

Therefore, $K_t = 15\% (1 - 0.40) = 9\%$

AEC Q.21.

The capital structure of Shahuji Limited as on 31st March, 2009 is as follows:

	Rs.
Equity capital : 6,00,000 equity shares of Rs. 100 each	6 crore
Reserve and surplus	1.20 crore
12% debenture of Rs. 100 each	1.80 crore

For the year ended 31st March, 2009 Shahuji Limited has paid equity dividend @ 24%. Dividend is likely to grow by 5% every year. The market price of equity share is Rs. 600 per share. Income-tax rate applicable to Shahuji Limited is 30%.

Required:

- Compute the current weighted average cost of capital.
- The company has planned to raise a further Rs. 3 crore by way of long-term loan at 18% interest. If loan is raised, the market price of equity share is expected to fall to Rs. 500 per share. What will be the new weighted average cost of capital of Shahuji Limited?

Solution / Hint :

Cost of Capital

(i) Computation of Current Weighted Average Cost of Capital**Cost of Debentures (k_d)**

$$k_d = \frac{I}{NP}(1-t) = \frac{12}{100}(1-0.30)$$

$$= 8.4\%$$

Cost of Equity Share Capital (k_e)

$$k_e = \frac{D_1}{P_0} + g$$

$$= \frac{24(1+0.05)}{600} + 5\%$$

$$= \frac{25.2}{600} + 0.05$$

$$= 0.042 + 0.05 = 0.092$$

$$= 9.2\%$$

Sources of Capital	Amount (Rs. in crores)	Weight	Cost of Capital	Weighted Cost of Capital
Equity	7.20	0.8	9.2%	7.36
Debentures	1.80	0.2	8.4%	<u>1.68</u>
Weighted Average Cost of Capital				<u>9.04</u>

Current Weighted Average Cost of Capital = 9.04 %

(ii) Computation of New Weighted Average Cost of Capital**Cost of Existing Debentures (k_d)**

Cost of existing debenture = 8.4%

Cost of Loan

$$\text{Cost of Loan} = \frac{18}{100}(1-0.30)$$

$$= 0.18 \times 0.70 = 12.6\%$$

Cost of Equity Share Capital (k_e)

$$k_e = \frac{24(1.05)}{500} + 5\%$$

$$= \frac{25.2}{500} + 0.05$$

$$= 0.0504 + 0.05 = 0.1004$$

$$= 10.04\%$$

Sources of Capital	Amount (Rs. in crores)	Weight	Cost of Capital	Weighted Cost of Capital
Equity	7.20	0.60	10.04%	6.024
Debt (Loan)	3.00	0.25	12.6%	3.15
Debentures	<u>1.80</u>	0.15	8.4%	<u>1.26</u>
	<u>12.00</u>			<u>10.434%</u>

New Weighted Average Cost of Capital = 10.434%

AEC Q.22.

Assume that a company is expected to pay a dividend of Rs. 5.00 per share this year. The company along with the dividend is expected to grow at a rate of 6%. If the current market price of the share is Rs. 60 per share, calculate the estimated cost of equity?

Solution / Hint :

Cost of Capital

Calculation of Estimated Cost of Equity using Dividend-yield-plus-growth-rate Approach

$$\begin{aligned}\text{Estimated cost of equity} &= (\text{Dividend} / \text{Price of the Share}) + \text{Growth rate} \\ &= [(Rs. 5 \div Rs. 60) + 6\%] \\ &= 14.3\%\end{aligned}$$

AEC Q.23.

Bestvision Company requires Rs. 10,00,000 of financing and is considering two options as given under:

Options	Amount of Equity Raised (Rs.)	Amount of Debt Financing (Rs.)	Before-tax Cost of Debt (per annum)
A	7,00,000	3,00,000	8%
B	3,00,000	7,00,000	10%

In the first year of operations, the company is expected to have sales revenues of Rs. 5,00,000; cost of sales of Rs. 2,00,000; and general and administrative expenses of Rs. 1,00,000. The tax rate is 30%. All earnings are paid out as dividends at year end.

You are required to calculate:

- The weighted average cost of capital under option A, if the cost of equity is 12%.
- The return on equity and the debt ratio under the two options.

Solution / Hint :

- (a) Calculation of Weighted Average Cost of Capital (WACC)

$$\begin{aligned}\text{WACC} &= (\text{Weight of equity}) \times (\text{Cost of equity}) + (\text{Weight of debt}) \times (\text{Before-tax cost of debt}) \times (1 - \text{Tax rate}) \\ &= (0.7) \times (0.12) + (0.3) \times (0.08) \times (1 - 0.3) \\ &= 0.084 + 0.0168 = 0.1008 = 10.08\%\end{aligned}$$

- (b) Calculation of Return on Equity (ROE) and Debt Ratio

$$\text{Return on Equity} = \text{Net Income} \div \text{Amount of Equity Invested}$$

$$\text{Debt Ratio} = \text{Amount of Debt Financing} \div \text{Total Assets}$$

Calculations of the Two Ratios for Both Financing Arrangements

	<i>Option A</i>	<i>Option B</i>
Sales revenue	Rs. 5,00,000	Rs. 5,00,000
Cost of sales	2,00,000	2,00,000
General & administrative expense	1,00,000	1,00,000
Interest expenses	<u>24,000</u>	<u>70,000</u>
Taxable income	Rs. 1,76,000	Rs. 1,30,000
Tax payable (30%)	<u>52,800</u>	<u>39,000</u>
Net income	Rs. 1,23,200	Rs. 91,000
Equity invested	7,00,000	3,00,000
	<u>1,23,200</u>	<u>91,000</u>
Return on Equity	7,00,000	3,00,000
	<u>= 17.6%</u>	<u>= 30.3%</u>
	<u>3,00,000</u>	<u>7,00,000</u>
Debt Ratio	10,00,000	10,00,000
	<u>= 0.3</u>	<u>= 0.7</u>

AEC Q.24.

Ganpati Limited has issued 10% debentures of nominal value of Rs. 100. The market price is Rs. 90 ex-interest. You are required to calculate the cost of debentures if the debentures are:

- Irredeemable; and
- Redeemable at par after 10 years.

Solution / Hint :

Cost of Capital

Cost of Capital

(a) Cost of Irredeemable Debentures

$$\text{Cost of Irredeemable Debentures} = \frac{I}{P_0} = \frac{\text{Rs. } 10}{\text{Rs. } 90} \times 100\% = 11.1\%$$

(b) Cost of Redeemable Debentures

The capital profit that will be made from now to the date of redemption is Rs. 10 i.e. (Rs. 100 – Rs. 90). This profit will be made over a period of ten years which gives annualized profit of Re. 1 which is about 1% of current market value. The best trial and error figure to try first is, therefore, 12%.

Year		Cash flow	Discount factor 12%	PV Rs.	Discount factor 11%	PV Rs.
0	Market value	(90)	1.000	(90.00)	1.000	(90.00)
1-10	Interest	10	5.650	56.50	5.889	58.89
10	Capital Repayment	100	0.322	<u>32.20</u>	0.352	<u>35.20</u>
				<u>(1.30)</u>		<u>4.09</u>

$$\begin{aligned} \text{Cost of Redeemable Debentures} &= \left(11 + \frac{4.09}{(4.09 - -1.30)} \times 1\right) \\ &= 11 + \frac{4.09}{(5.39)} \times 1 = 11 + 0.758 \\ &= 11.758 = 11.76\% \end{aligned}$$

AEC Q.25.

Xansa Limited's operating income is Rs. 1,80,000. The company's cost of debt is 12% and currently it employs Rs. 5,25,000 of debt. The overall cost of capital of the company is 16%. You are required to determine the cost of equity of Xansa Limited.

Cost of Capital

Solution / Hint :**Computation of Cost of Equity**

	Rs.
Net operating income of the company i.e. EBIT	1,80,000
Less: Interest on Debt (12% of Rs. 5,25,000)	<u>63,000</u>
Earnings available for equity shareholders	<u>1,17,000</u>
Overall cost of capital (ko) = 16%	

$$\begin{aligned} \text{Total Value of Company} &= \frac{\text{EBIT}}{\text{KO}} = \frac{1,80,000}{0.16} \\ &= \text{Rs. } 11,25,000 \end{aligned}$$

$$\begin{aligned} \text{Cost of Equity (ke)} &= \frac{\text{Earnings available to equity share holders}}{\text{Market value of equity}} \times 100 \\ &= \frac{1,17,000}{11,25,000 - 5,25,000} \times 100 = \frac{1,17,000}{6,00,000} \times 100 \end{aligned}$$

$$\text{Cost of Equity} = 19.5\%$$

AEC Q.26.

You are required to calculate the cost of equity of Alpha Limited whose risk-free interest rate equals to 5%, the expected market rate of interest equals to 10%, and the firm's beta coefficient is equal to 0.9.

Cost of Capital

Solution / Hint :

Computation of Cost of Equity based on CAPM

$$K_e = R_f + b (R_m - R_f)$$

$$K_e = 5\% + (10\% - 5\%) (0.9)$$

$$= 5\% + (5\%) (0.9)$$

$$= 5\% + 4.5\%$$

$$= 9.5\%$$

Cost of Equity = 9.5%.

AEC Q.27.

The following financial statements relate to Thermox Limited:

Balance Sheet as on

	March 31, 2009	March 31, 2008
	Rs.	Rs.
<i>Capital and Liabilities:</i>		
Share capital, Rs. 10 par value	1,67,500	1,50,000
Share premium	3,35,000	2,37,500
Reserves and Surplus	1,74,300	1,23,250
Debentures	2,40,000	—
Long-term loans	40,000	50,000
Creditors	28,800	27,100
Bank Overdraft	7,500	6,250
Accrued expenses	4,350	4,600
Income-tax payable	48,250	16,850
	<u>10,45,700</u>	<u>6,15,550</u>
	March 31, 2009	March 31, 2008
	Rs.	Rs.
<i>Assets:</i>		
Land	3,600	3,600
Building, net of depreciation	6,01,800	1,78,400
Machinery, net of depreciation	1,10,850	1,07,050
Investment in 'A' Ltd.	75,000	—
Stock	58,800	46,150
Prepaid expenses	1,900	2,300
Debtors	76,350	77,150
Trade Investments	40,000	1,05,000
Cash	<u>77,400</u>	<u>95,900</u>
	<u>10,45,700</u>	<u>6,15,550</u>

Income Statement

for the year ended March 31, 2009

	Rs.
Net Sales	13,50,000
Less: Cost of goods sold and operating expenses (including depreciation on buildings of Rs. 6,600 and depreciation on machinery of Rs. 11,400)	<u>12,58,950</u>
Net operating profit	91,050
Gain on sale of trade investments	6,400
Gain on sale of machinery	<u>1,850</u>
Profits before tax	99,300
Income-tax	<u>48,250</u>
Profits after tax	<u>51,050</u>

Additional information:

- (i) Machinery with a net book value of Rs. 9,150 was sold during the year.
- (ii) The shares of 'A' Ltd. were acquired by issue of debentures.

You are required to prepare a Funds Flow Statement (Statement of Changes in Financial Position on Working capital basis) for the year ended March 31, 2009.

**Fund Flow
Statement**

Solution / Hint :**Schedule of Changes in Working Capital**

	March 31, 2009	March 31, 2008	Impact on Working Capital	
			Increase	Decrease
Current Assets				
Stock	58,800	46,150	12,650	—
Prepaid expenses	1,900	2,300	—	400
Debtors	76,350	77,150	—	800
Trade Investments	40,000	1,05,000	—	65,000
Cash	<u>77,400</u>	<u>95,900</u>	<u>—</u>	<u>18,500</u>
	<u>2,54,450</u>	<u>3,26,500</u>	<u>12,650</u>	<u>84,700</u>
Current Liabilities				
Creditors	28,800	27,100	—	1,700
Bank overdraft	7,500	6,250	—	1,250
Accrued expenses	4,350	4,600	250	—
Income tax payable	<u>48,250</u>	<u>16,850</u>	<u>—</u>	<u>31,400</u>
	<u>88,900</u>	<u>54,800</u>	<u>250</u>	<u>34,350</u>
Net Working Capital	1,65,550	2,71,700	12,900	1,19,050
Decrease in net working capital	<u>1,06,150</u>	<u>—</u>	<u>1,06,150</u>	<u>—</u>
	<u>2,71,700</u>	<u>2,71,700</u>	<u>1,19,050</u>	<u>1,19,050</u>

Machinery Account

	Rs.		Rs.
Balance b/d	1,07,050	Sale of machinery (given)	9,150
Purchase of machinery (plug)	24,350	Depreciation (given)	11,400
	<u>1,31,400</u>	Balance c/d	<u>1,10,850</u>
			<u>1,31,400</u>

Trade Investments Account

	Rs.		Rs.
Balance b/d	1,05,000	Cash (sale of trade investments)	65,000
	<u>1,05,000</u>	Balance c/d	<u>40,000</u>
			<u>1,05,000</u>

Estimation of Funds flow from Operations

	Rs.
Profit after tax	51,050
Add: Depreciation on Buildings	6,600
Depreciation on Machinery	<u>11,400</u>
	69,050
Less: Gain on sale of machinery	<u>1,850</u>
Funds from Operations	<u>67,200</u>

Note: Gain on sale of trade investment has been considered as an operating income. Trade investments have been considered as part of current assets.

**Statement of Changes in Financial Position (Working Capital basis)
for the year ended March 31, 2009**

	Rs.
Sources:	
Funds from operations	67,200
Sale of machinery on gain (9,150 + 1,850)	11,000
Debentures issued (Rs. 2,40,000 – 75,000)	1,65,000
Investment in 'A' Ltd. financial transaction and hence not affecting working capital	
Issue of share capital (including share premium)	<u>1,15,000</u>
Financial Resources Provided	<u>3,58,200</u>
Uses:	
Purchase of building (6,01,800 + 6,600 – 1,78,400)	4,30,000
Purchase of machinery	24,350
Payment of long-term loan	<u>10,000</u>
Financial Resources Applied	<u>4,64,350</u>
Net Decrease in Working Capital	<u>1,06,150</u>

AEC Q.28.

The fixed assets and equities of Alpha Limited are supplied to you both at the beginning and at the end of the year 2008-2009:

	1.04.2008	31.03.2009
	Rs.	Rs.
Plant Less: Depreciation	63,500	1,42,500
Investment in Shares of Beta Limited	1,32,000	2,90,000
Bonds Payable	2,50,000	70,000
Capital Stock	4,00,000	4,00,000
Retained Earnings	2,38,000	4,10,500

You are not in a position to have complete Balance Sheet data or an income statement for the year in spite of the fact that you have obtained the following information:

- (a) Dividend of Rs. 37,500 was paid.
- (b) The net income included Rs. 13,000 as profit on sale of equipment. There has been an increase of Rs. 93,000 in the value of gross plant assets even though equipments worth Rs. 29,000 with a net book value of Rs. 19,000 were disposed off.

You are required to prepare a statement of sources and uses of net working capital.

Solution / Hint :

Working Notes:

(i) Purchase of Plant	Rs.
Net increase in Gross Value	93,000
Add: Gross Value of Plant Sold	<u>29,000</u>
	<u>1,22,000</u>

(ii) **Depreciation on Plant and Machinery**

Plant and Machinery Account

	Rs.		Rs.
To Balance b/d	63,500	By Sale of Plant & Machinery A/c	19,000
To Purchases	1,22,000	By Depreciation (balancing figure)	24,000
		By Balance c/d	<u>1,42,500</u>
	<u>1,85,500</u>		<u>1,85,500</u>

(iii) Funds from Operations	Rs.
Increase in Retained Earnings	1,72,500
[4,10,500 – 2,38,000]	
Add: Dividend Paid	37,500
Add: Depreciation on Plant	<u>24,000</u>
	2,34,000
Less: Gain on Sale of Equipment	<u>13,000</u>
	<u>2,21,000</u>

Statement of Sources and Uses of Fund

Sources	Rs.	Uses	Rs.
Funds from Operation	2,21,000	Purchase of plant	1,22,000
Sale of Equipment	32,000	Purchase of Investments	1,58,000
		(2,90,000 - 1,32,000)	
Decrease in Net Working Capital (Balancing figure)	2,44,500	Payment of Bonds	1,80,000
		Dividends	<u>37,500</u>
	<u>4,97,500</u>		<u>4,97,500</u>

Fund Flow Statement

AEC Q.29.

Differentiate between the Operating Leverage and Financial Leverage.

Leverage

Solution / Hint :

Operating Leverage and Financial Leverage

Operating leverage is defined as the “firm’s ability to use fixed operating costs to magnify effects of changes in sales on its earnings before interest and taxes.” When there is an increase

or decrease in sales level the EBIT also changes. The effect of change in sales on the level of EBIT is measured by operating leverage. Operating leverage occurs when a firm has fixed costs which must be met regardless of volume of sales. When the firm has fixed costs, the percentage change in profits due to change in sales level is greater than the percentage change in sales. Whereas, Financial leverage is defined as “the ability of a firm to use fixed financial charges to magnify the effects of changes in EBIT/Operating profits, on the firm's earnings per share”. The financial leverage occurs when a firm's capital structure contains obligation of fixed financial charges e.g. interest on debentures, dividend on preference shares etc. along with owner's equity to enhance earnings of equity shareholders. The fixed financial charges do not vary with the operating profits or EBIT. They are fixed and are to be paid irrespective of level of operating profits or EBIT.

AEC Q.30.

The data relating to Company Alpha and Company Beta are given for your consideration:

Leverage

	Company Alpha	Company Beta
Equity Capital	Rs. 6,00,000	Rs. 3,50,000
12% Debentures	Rs. 4,00,000	Rs. 6,50,000
Output (units) per annum	60,000	15,000
Selling Price/ unit	Rs. 30	Rs. 250
Fixed Costs per annum	Rs. 7,00,000	Rs. 14,00,000
Variable Cost per unit	Rs. 10	Rs. 75

You are required to calculate the operating leverage, financial leverage and combined leverage of Alpha and Beta Companies.

Solution / Hint :**Computation of Degree of Operating Leverage, Financial Leverage and Combined Leverage of Companies Alpha and Beta**

	Company Alpha	Company Beta
Output Units per annum	60,000	15,000
	Rs.	Rs.
Selling Price / Unit	30	250
Sales Revenue	18,00,000	37,50,000
	(60,000 units × Rs. 30)	(15,000 units × Rs. 250)
Less: Variable Costs	6,00,000	11,25,000
	(60,000 units × Rs. 10)	(15,000 units × Rs. 75)
Contribution (C)	12,00,000	26,25,000
Less: Fixed Costs	7,00,000	14,00,000
EBIT	5,00,000	12,25,000
Less: Interest @ 12% on Debentures	48,000	78,000
Earnings before taxes (EBT)	4,52,000	11,47,000

	Company Alpha	Company Beta
Calculation of Degree of Operating Leverage (DOL)		
$DOL = \frac{C}{EBIT}$	2.4 (Rs.12,00,000 / Rs.5,00,000)	2.14 (Rs.26,25,000 / Rs.12,25,000)
Calculation of Degree of Financial Leverage (DFL)		
$DFL = \frac{EBIT}{EBT}$	1.11 (Rs.5,00,000 / Rs.4,52,000)	1.07 (Rs.12,25,000 / Rs.11,47,000)
Calculation of Degree of Combined Leverage (DCL)		
$DCL = DOL \times DFL$	2.66 (2.4 × 1.11)	2.29 (2.14 × 1.07)

AEC Q.31.

Mahadev Limited is considering the installation of a new project costing Rs. 80,00,000. Expected annual sales revenue from the project is Rs. 90,00,000 and its variable costs are 60 percent of sales. Expected annual fixed cost other than interest is Rs. 10,00,000. Corporate tax rate is 30 percent. The company wants to arrange the funds through issue of 4,00,000 equity shares of Rs. 10 each and 12 percent debentures of Rs. 40,00,000.

You are required to:

- Calculate the operating, financial and combined leverages and earnings per share (EPS); and also
- Determine the likely level of EBIT, if EPS is (i) Rs. 4, (ii) Rs. 2, (iii) 0.

Solution / Hint :

(a) Calculation of Leverages and Earnings per Share (EPS)

Income Statement

	Rs.
Sales Revenue	90,00,000
Less: Variable Cost @ 60%	<u>54,00,000</u>
Contribution	36,00,000
Less: Fixed Cost other than Interest	<u>10,00,000</u>
Earnings before Interest and Tax (EBIT)	26,00,000
Less: Interest (12% on Rs. 40,00,000)	<u>4,80,000</u>
Earnings before tax (EBT)	21,20,000
Less: Tax @ 30%	<u>6,36,000</u>
Earnings after tax (EAT)	<u>14,84,000</u>

(i) Calculation of Operating Leverage (OL)

$$\begin{aligned} \text{Operating Leverage} &= \frac{\text{Contribution}}{\text{EBIT}} \\ &= \frac{\text{Rs. } 36,00,000}{26,00,000} \\ &= 1.3846 \end{aligned}$$

Leverage

(ii) Calculation of Financial Leverage (FL)

$$\begin{aligned}\text{Financial Leverage} &= \frac{\text{EBIT}}{\text{EBT}} \\ &= \frac{\text{Rs. 26,00,000}}{\text{Rs. 21,20,000}} \\ &= 1.2264\end{aligned}$$

(iii) Calculation of Combined Leverage (CL)

$$\begin{aligned}\text{Combined Leverage} &= \text{OL} \times \text{FL} \\ &= 1.3846 \times 1.2264 \\ &= 1.6981\end{aligned}$$

(iv) Calculation of Earnings per Share (EPS)

$$\begin{aligned}\text{EPS} &= \frac{\text{EAT}}{\text{Number of Equity Shares}} \\ &= \frac{\text{Rs. 14,84,000}}{4,00,000} \\ &= 3.71\end{aligned}$$

(b) Calculation of likely levels of EBIT at Different EPS

$$\text{EPS} = \frac{(\text{EBIT} - I)(1 - T)}{\text{Number of Equity Shares}}$$

(i) If EPS is Rs. 4

$$4 = \frac{(\text{EBIT} - 4,80,000)(1 - 0.3)}{4,00,000}$$

$$\text{EBIT} - 4,80,000 = \frac{16,00,000}{0.70}$$

$$\text{EBIT} - 4,80,000 = 22,85,714$$

$$\text{EBIT} = \text{Rs. 27, 65,714}$$

(ii) If EPS is Rs. 2

$$2 = \frac{(\text{EBIT} - 4,80,000)(1 - 0.3)}{4,00,000}$$

$$\text{EBIT} - 4,80,000 = \frac{8,00,000}{0.70}$$

$$\text{EBIT} - 4,80,000 = 11,42,857$$

$$\text{EBIT} = \text{Rs. 16, 22,857}$$

(iii) If EPS is Rs. Zero

$$0 = \frac{(\text{EBIT} - 4,80,000)(1 - 0.3)}{4,00,000}$$

$$\text{EBIT} = \text{Rs. 4,80,000}$$

AEC Q.32. Differentiate between Liquidity Ratios and Activity Ratios

Ratio Analysis

Solution / Hint :**Liquidity Ratios and Activity Ratios**

Liquidity or short-term solvency means ability of the business to pay its short-term liabilities. Inability to pay-off short-term liabilities affects its credibility as well as its credit rating. Continuous default on the part of the business leads to commercial bankruptcy. Eventually such commercial bankruptcy may lead to its sickness and dissolution. Short-term lenders and creditors of a business are very much interested to know its state of liquidity because of their financial stake. Therefore, **liquidity ratios** provide information about a company's ability

to meet its short-term financial obligations.

Whereas, on the other hand, the **activity ratios**, also called the Turnover ratios or Performance ratios, are employed to evaluate the efficiency with which the firm manages and utilises its assets. These ratios usually indicate the frequency of sales with respect to its assets. These assets may be capital assets or working capital or average inventory. These ratios are usually calculated with reference to sales/cost of goods sold and are expressed in terms of rate or times.

AEC Q.33. Write short notes on Composition of ROE using Du Pont

Ratio Analysis

Solution / Hint :

Composition of ROE using Du Pont

There are three components in the calculation of return on equity using the traditional DuPont model- the net profit margin, asset turnover, and the equity multiplier. By examining each input individually, the sources of a company's return on equity can be discovered and compared to its competitors.

- (i) **Net Profit Margin:** The net profit margin is simply the after-tax profit a company generates for each rupee of revenue.

$$\text{Net profit margin} = \text{Net Income} \div \text{Revenue}$$

Net profit margin is a safety cushion; the lower the margin, lesser the room for error.

- (ii) **Asset Turnover:** The asset turnover ratio is a measure of how effectively a company converts its assets into sales. It is calculated as follows:

$$\text{Asset Turnover} = \text{Revenue} \div \text{Assets}$$

The asset turnover ratio tends to be inversely related to the net profit margin; i.e., the higher the net profit margin, the lower the asset turnover.

- (iii) **Equity Multiplier:** It is possible for a company with terrible sales and margins to take on excessive debt and artificially increase its return on equity. The equity multiplier, a measure of financial leverage, allows the investor to see what portion of the return on equity is the result of debt. The equity multiplier is calculated as follows:

$$\text{Equity Multiplier} = \text{Assets} \div \text{Shareholders' Equity}$$

Calculation of Return on Equity

To calculate the return on equity using the DuPont model, simply multiply the three components (net profit margin, asset turnover, and equity multiplier.)

$$\text{Return on Equity} = \text{Net profit margin} \times \text{Asset turnover} \times \text{Equity multiplier}$$

AEC Q.34.

Ratio Analysis

Housestores Limited		
Consolidated Balance Sheets		
Amounts in lakhs, except per share data	February 2, 2009	February 2, 2008
	Rs.	Rs.
Assets		
<i>Current Assets:</i>		
Cash and Cash equivalents	2,188	2,477
Short-term investments, including current maturities of long-term investments	65	69
Receivables, net	1,072	920
Merchandise inventories	8,338	6,725

Other current assets	<u>254</u>	<u>170</u>
Total current assets	11,917	10,361
<i>Property and equipment, at cost:</i>		
Land	5,560	4,972
Buildings	9,197	7,698
Furniture, fixtures and equipment	4,074	3,403
Leasehold improvements	872	750
Construction in progress	724	1,049
Capital leases	<u>306</u>	<u>257</u>
	20,733	18,129
Less: Accumulated depreciation and amortization	<u>3,565</u>	<u>2,754</u>
Net property and equipment	17,168	15,375
Notes receivable	107	83
Cost in excess of the fair value of net assets acquired, net of accumulated amortisation of Rs. 50 at February 2, 2009, and Rs. 49 at February 3, 2008	575	419
Other assets	<u>244</u>	<u>156</u>
Total assets	<u>30,011</u>	<u>26,394</u>
Liabilities and Shareholders' Equity		
<i>Current Liabilities:</i>		
Accounts payable	4,560	3,436
Accrued salaries and related expenses	809	717
Sales taxes payable	307	348
Deferred revenue	998	851
Income taxes payable	227	211
Other accrued expenses	<u>1,134</u>	<u>938</u>
Total current liabilities	8,035	6,501
Long-term debt, excluding current installments	1,321	1,250
Other long-term liabilities	491	372
Deferred income taxes	<u>362</u>	<u>189</u>

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Total liabilities	10,209	8,312
<i>Shareholders' Equity</i>		
Equity shares, par value Rs. 0.05; authorized: 10,000 shares, issued and outstanding 2,362 shares at February 3, 2009, and 2,346 shares at February 3, 2008	118	117
Paid-in capital	5,858	5,412
Retained earnings	15,971	12,799
Accumulated other comprehensive loss	(82)	(220)
Unearned compensation	(63)	(26)
Treasury stock, at cost, 69 shares at February 2, 2009	<u>(2,000)</u>	—
Total shareholders' equity	<u>19,802</u>	<u>18,082</u>
Total liabilities and shareholders' equity	<u>30,011</u>	<u>26,394</u>

Housestores Limited
Consolidated Statements of Earnings
Year Ended

	<i>February 2, 2009</i>	<i>February 3, 2008</i>	<i>January 28, 2007</i>
<i>Amounts in lakhs, except per share data</i>			
Net Sales	Rs. 58,247	Rs. 53,553	Rs. 45,738
Cost of merchandise sold	<u>40,139</u>	<u>37,406</u>	<u>32,057</u>
Gross profit	18,108	16,147	13,681
<i>Operating expenses:</i>			
Selling and store operating	11,180	10,163	8,513
Pre-opening	96	117	142
General and administrative	<u>1,002</u>	<u>935</u>	<u>835</u>
Total operating expenses	12,278	11,215	9,490
Operating income	5,830	4,932	4,191
<i>Interest income (expense):</i>			
Interest and investment income	79	53	47
Interest expense	<u>(37)</u>	<u>(28)</u>	<u>(21)</u>
Interest, net	42	25	26
Earnings before provision for income taxes	5,872	4,957	4,217
Provision for income taxes	<u>2,208</u>	<u>1,913</u>	<u>1,636</u>
Net earnings	Rs. 3,664	Rs. 3,044	Rs. 2,581
Weighted-average equity shares	2,336	2,335	2,315
Basic earnings per share	Rs. 1.57	Rs. 1.30	Rs. 1.11
Diluted weighted-average equity shares	2,344	2,353	2,352
Diluted earnings per share	Rs. 1.56	Rs. 1.29	Rs. 1.10

You are required to calculate:

- Profitability Ratios
- Activity Ratios
- Liquidity Ratios
- Debt Utilisation Ratios
- Market Ratios.

Solution / Hint :

(a) Profitability Ratios

Profitability ratios measure how effective a firm is at generating profit from operations. They are some of the most closely watched and widely quoted financial ratios. Management attempts to maximize these ratios to maximize firm value.

- (i) **Gross margin** measures the percentage of each sale in rupees remaining after payment for the goods sold.

$$\text{Gross margin} = \frac{\text{Gross profit}}{\text{Net sales}} = \frac{\text{Rs. 18,108}}{\text{Rs. 58,247}} = 31.09\%$$

Remember that gross profit is equal to net sales minus cost of goods sold.

- (ii) **Profit margin** finds the proportion of revenue that finds its way into profits. Profit margin is calculated as net income divided by net sales, as shown below:

$$\text{Profit margin} = \frac{\text{Net income after interest and taxes}}{\text{Net sales}} = \frac{\text{Rs. 3,664}}{\text{Rs. 58,247}} = 6.29\%$$

- (iii) **Operating profit margin** measures the percentage of each sales in rupees that remains after the payment of all costs and expenses except for interest and taxes. This ratio is followed closely by analysts because it focuses on operating results. Operating profit is often referred to as earnings before interest and taxes or EBIT.

$$\text{Operating profit margin} = \frac{\text{Operating profit}}{\text{Net sales}} = \frac{\text{Rs. 5,830}}{\text{Rs. 58,247}} = 10.01\%$$

- (iv) **Return on assets (return on investment)** measures the percentage return generated on the assets available (investment). This ratio may be calculated as:

$$\text{Return on assets} = \frac{\text{Net income after interest and taxes}}{\text{Average total assets}} = \frac{\text{Rs. 3,664}}{\text{Rs. 28,203}} = 12.99\%$$

$$\begin{aligned} \text{Average total assets} &= \frac{(\text{Ending total assets} + \text{Beginning total assets})}{2} \\ &= \frac{(\text{Rs. 30,011} + \text{Rs. 26,394})}{2} \\ &= \text{Rs. 28,203} \end{aligned}$$

- (v) **Return on equity** measures the percentage return generated to equity shareholders.

$$\text{Return on equity} = \frac{\text{Net income after interest and taxes}}{\text{Average shareholders' equity}} = \frac{\text{Rs. 3,664}}{\text{Rs. 18,942}} = 19.34\%$$

$$\text{Average shareholders' equity (SE)} = \frac{(\text{Ending SE} + \text{Beginning SE})}{2}$$

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$$= \frac{(\text{Rs. } 19,802 + \text{Rs. } 18,082)}{2}$$

$$= \text{Rs. } 18,942.$$

- (vi) **The dividend payout ratio** measures the dividend paid in relation to net earnings. If Housestores Limited's dividend for the year was Rs. 0.22, the dividend payout is calculated as:

$$\text{Dividend payout ratio} = \frac{\text{Cash dividend per share}}{\text{Earnings per share}}$$

$$= \frac{\text{Rs. } 0.22}{\text{Rs. } 1.57}$$

$$= 0.14 \text{ or } 14\%.$$

(b) Asset Utilisation (Activity) Ratios

Asset utilization ratios measure the time it takes to convert various assets to sales or cash. Asset utilisation ratios are used to measure the efficiency with which assets are managed. For this reason, they are often called asset management ratios.

- (i) **Receivables turnover** measures the number of times per year the balance of receivables is collected. This is a very important measure of the efficiency with which management is managing accounts receivables.

$$\text{Receivables turnover} = \frac{\text{Net credit sales}}{\text{Average accounts receivable}}$$

This ratio cannot be computed for Housestores Limited since the company does not break out the amount of credit sales.

- (ii) The **average collection period** measures the average number of days it takes to collect an account receivable. This ratio is also referred to as the number of days of receivable and the number of day's sales in receivables.

$$\text{Average collection period} = \frac{\text{Average accounts receivable}}{\text{Average sales per day}}$$

Again, this ratio cannot be calculated for Housestores Limited because the company does not break out the amount of credit sales.

- (iii) **Inventory turnover** measures the efficiency with which a firm utilizes (manages) its inventory.

$$\text{Inventory turnover} = \frac{\text{Cost of goods sold}}{\text{Average inventory}} = \frac{\text{Rs. } 40,139}{\text{Rs. } 7,532} = 5.33 \text{ times}$$

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$$\text{Average inventory} = \frac{(\text{Ending inventory} + \text{Beginning inventory})}{2}$$

$$= \frac{(\text{Rs. 8,338} + \text{Rs. 6,725})}{2}$$

$$= \text{Rs. 7,532.}$$

- (iv) A related measure is the **number of days' sales in inventory**.

$$\text{Number of days' sales in inventory} = \frac{\text{Average inventory}}{\text{Cost of goods sold} / 365}$$

$$= \frac{\text{Rs. 7,532}}{\text{Rs. 40,139} / 365}$$

$$= 68.49 \text{ days.}$$

- (v) **Fixed asset turnover** measures the efficiency with which the firm uses its fixed assets.

$$\text{Fixed asset turnover} = \frac{\text{Sales}}{\text{Average net fixed assets}} = \frac{\text{Rs. 58,247}}{\text{Rs. 16,272}} = 3.58 \text{ times}$$

$$\text{Average fixed assets} = \frac{(\text{Ending fixed assets} + \text{Beginning fixed assets})}{2}$$

$$= \frac{(\text{Rs. 17,168} + \text{Rs. 15,375})}{2}$$

$$= \text{Rs. 16,272.}$$

- (vi) **Total asset turnover** measures the efficiency with which the firm uses its total assets.

$$\text{Total asset turnover} = \frac{\text{Sales}}{\text{Average total assets}} = \frac{\text{Rs. 58,247}}{\text{Rs. 28,203}} = 2.07 \text{ times}$$

(c) Liquidity Ratios

Liquidity ratios measure the firm's ability to meet its short-term obligations as they come due.

- (i) The **current ratio** is the most common measure of short-term liquidity. It is sometimes referred to as the working capital ratio because net working capital is the difference between current assets and current liabilities.

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}} = \frac{\text{Rs. 11,917}}{\text{Rs. 8,035}} = 1.48$$

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Current assets include cash and cash equivalents, net accounts receivable, marketable securities classified as current, inventories and prepaid expenses.

Current liabilities include accounts payable, short-term notes payable, current maturities of long-term debt, unearned revenue, and other accrued liabilities.

- (ii) The **quick (acid) ratio** provides a more conservative measure of short-term liquidity. It takes out inventory because in times of financial difficulty inventory may be saleable only at liquidation value.

$$\text{Quick ratio} = \frac{\text{Current assets} - \text{Inventory}}{\text{Current liabilities}} = \frac{\text{Rs. } 11,917 - 8,338}{\text{Rs. } 8,035} = 0.45$$

(d) Debt Utilisation Ratios

Debt utilisation ratios measure the effectiveness with which management finances the assets of the firm. They are used to evaluate the financial leverage of the firm.

- (i) The **debt to total assets** measures the proportion of total assets financed with debt and, therefore, the extent of financial leverage.

$$\text{Debt to total assets} = \frac{\text{Total liabilities}}{\text{Total assets}} = \frac{\text{Rs. } 10,209}{\text{Rs. } 30,011} = 34.02\%$$

- (ii) The **debt to equity ratios** also measures the extent of the firm's financial leverage.

$$\text{Debt to equity ratio} = \frac{\text{Total liabilities}}{\text{Total equity}} = \frac{\text{Rs. } 10,209}{\text{Rs. } 19,802} = 51.56\%$$

- (iii) The **times interest earned** measures the firm's ability to make contractual interest payments.

$$\text{Times interest earned} = \frac{\text{Earnings before interest and taxes}}{\text{Interest expense}} = \frac{\text{Rs. } 5,830}{\text{Rs. } 37} = 157.57$$

(e) Market Ratios

Market ratios involve measures that consider the market value of the company's shares.

- (i) The **price/earnings (PE) ratio** is the most commonly quoted market measure. Assuming that Housestores Limited's share price is Rs. 34.00, the price/earnings ratio would be computed as follows:

$$\text{Price / earnings} = \frac{\text{Market price per share}}{\text{Earnings per share}} = \frac{\text{Rs. } 34}{\text{Rs. } 1.57} = 21.66$$

- (ii) The **market / book ratio** provides another evaluation of how investors view the company's past and future performance. To calculate the ratio, the book value per share must first be calculated.

$$\begin{aligned} \text{Book value per share} &= \frac{\text{Total equity}}{\text{Number of shares outstanding}} \\ &= \frac{\text{Rs. } 19,802}{2,362} = \text{Rs. } 8.38 \text{ per share} \end{aligned}$$

Again, assuming a Rs. 34 market price per share, the market / book ratio is calculated as follows:

$$\begin{aligned} \text{Market / Book ratio} &= \frac{\text{Market value per share}}{\text{Book value per share}} \\ &= \frac{\text{Rs. } 34.00}{\text{Rs. } 8.38} = 4.06. \end{aligned}$$

AEC Q.35.

Soft Toys Limited is a toy manufacturing company. It manufactures purple teddy bears, which is the latest craze among kids and teenagers. The company is now at full production of the teddy bears. The final accounts for the year 2008 and 2009 have been given for your consideration:

Profit and Loss Account for the year ending 31st December

	2009	2008
	'000	'000
Sales	30,000	20,000
Cost of Sales	<u>20,000</u>	<u>11,000</u>

Ratio Analysis

Operating Profit	10,000	9,000
Interest	<u>450</u>	<u>400</u>
Profit before tax	9,550	8,600
Tax	<u>2,000</u>	<u>1,200</u>
Profit after tax	7,550	7,400
Dividends	<u>2,500</u>	<u>2,500</u>
Retained Profit	<u>5,050</u>	<u>4,900</u>

Balance Sheet as on 31st December

	2009			2008		
	'000	'000	'000	'000	'000	'000
Fixed Assets			1,500			1,400
Current Assets						
Stock	7,350			3,000		
Debtors	10,000			6,000		
Cash	<u>2,500</u>			<u>4,500</u>		
		19,850			13,500	
Current Liabilities						
Overdraft	2,000			-		
Dividends Payable	2,500			2,500		
Trade Creditors	<u>4,200</u>			<u>2,500</u>		
		(8,700)			(5,000)	
Net Current Assets			11,150			8,500
8% Debentures			(1,200)			(3,500)
Net Assets			<u>11,450</u>			<u>6,400</u>
Equity Shares (25p)			5,000			5,000
Profit and Loss a/c			<u>6,450</u>			<u>1,400</u>
			<u>11,450</u>			<u>6,400</u>

You are required to identify the main problems faced by Soft Toys Limited using ratio analysis and provide possible solutions to the problems.

Solution / Hint :**(i) Problems Faced by Soft Toys Limited**

Soft Toys Limited has become significantly more reliant on short-term liabilities to finance its operations as shown by the following analysis:

	2009		2008	
	'000		'000	
Total Assets	<u>21,350</u>		<u>14,900</u>	
Short-term Liabilities	8,700	40.7%	5,000	33.6%
Long-term Funds (Equity and Debt)	<u>12,650</u>	<u>59.3%</u>	<u>9,900</u>	<u>66.4%</u>
	<u>21,350</u>		<u>14,900</u>	

(a) Overtrading

A major reason for this is overtrading. Sales increased by 50% in one year, but the operating profit margin fell from $9,000/20,000 = 45\%$ in 2008 to $10,000/30,000 = 33\%$ in 2009.

(b) Refinancing

However, the effect is compounded by the repayment of Rs. 2.3 million (66%) of the 8% debentures and replacement with Rs. 2 million bank overdraft and increased trade creditor finance. Although this may be because the interest rate on the overdraft is cheaper than on the debentures. It is generally not advisable in the context of the risk of short-term debt.

However, if it is felt that the current sales volume is abnormal and that, when the Soft Toys Limited reaches the end of its product life cycle, sales will stabilise at a lower level, the use of shorter-term debt is justified.

(c) Liquidity Ratios

As a result of overtrading, the company's current ratio has deteriorated from $13,500 / 5,000 = 2.7$ in 2008 to $19,850 / 8,700 = 2.28$ in 2009. The quick assets ratio (or 'acid test') has deteriorated from $10,500 / 5,000 = 2.1$ to $12,500 / 8,700 = 1.44$. However, these figures are acceptable and only if they continue to deteriorate, there is likely to be liquidity problem. In the year 2009, the company continues to have a healthy bank balance, although this has been achieved partly by halting dividend growth.

(d) Investment in Fixed Assets

Soft Toys Limited has not maintained an investment in fixed assets to match its sales growth. Sales/ fixed assets ratio has increased from $20,000 / 1,400 = 14.3$ times to $30,000 / 1,500 = 20$ times. This may be putting the quality of production at risk, but may be justified, however, if sales are expected to decline when the purple teddy bear loses its popularity.

(e) Working Capital Ratios

An analysis of working capital ratios shows that:

- (i) Stock turnover ratio has decreased from $20,000 / 3,000 = 6.67$ times to $30,000 / 7,350 = 4.08$ times. This indicates that there has been a large investment in stock. The question of whether this is justified again depends on expected future sales, but the strategy appears to be the opposite of that adopted for fixed assets.
- (ii) The average debtors payment period has increased from $6,000 / 20,000 \times 365 = 110$ days to $10,000 / 30,000 \times 365 = 122$ days, indicating a lack of credit control. This has contributed to weakening of the cash position. There appears to be no evidence of prompt payment discounts to debtors.
- (iii) The payment period to creditors (estimated roughly) has decreased from $2,500 / 11,000 \times 365 = 83$ days to $4,200 / 20,000 \times 365 = 77$ days. This result is unexpected, indicating that there has been no increase in delaying payment to creditors over the year. Creditors are being paid in a significantly shorter period than the period of credit taken by customers.
- (f) Thus the main problem facing Soft Toys Limited is its increasing over dependence on short-term finance, caused mainly by:
 - (i) A major investment in stock to satisfy a rapid increase in sales volumes,
 - (ii) Deteriorating profit margins,
 - (iii) Poor credit control of debtors, and
 - (iv) Repayment of debenture capital.

(ii) Solutions Provided for Soft Toys Limited

(a) Future Sales

Possible solutions to the above problems depend on future sales and product projections of Soft Toys Limited. If the rapid increase in sales has been a one-product phenomenon, there is little point in over-capitalizing by borrowing long-term and investing in a major expansion of fixed assets. If, however, sales of this and future products are expected to continue increasing, and further investment is needed, the company's growth should be underpinned by an addition of equity capital and an issue of longer-term debt.

(b) Better Working Capital Management

Regardless of the above, the working capital strategies followed by Soft Toys Limited could be improved. Debtors should be encouraged to pay more promptly. This is best done by instituting proper credit control procedures. Longer credit periods could probably be negotiated with creditors and quantity discounts should be considered.

AEC Q.36.

White Ash Limited is a manufacturer of products for the construction industry and its accounts are given for your consideration. You are required to calculate the liquidity and working capital ratios from the accounts and comment on the ratios.

Ratio Analysis

	2009	2008
	Rs. (in lakhs)	Rs. (in lakhs)
Turnover	2,065.0	1,788.7
Cost of Sales	<u>1,478.6</u>	<u>1,304.0</u>
Gross Profit	<u>586.4</u>	<u>484.7</u>
	2009	2008
	Rs. (in lakhs)	Rs. (in lakhs)
Current Assets		
Stocks	119.0	109.0
Debtors (Refer Note A)	400.9	347.4
Short-term Investments	4.2	18.8
Cash at bank and in hand	<u>48.2</u>	<u>48.0</u>
	<u>572.3</u>	<u>523.2</u>
Current Liabilities		
Loans and Overdrafts	49.1	35.3
Taxes	62.0	46.7
Dividend	19.2	14.3
Creditors (Refer to Note B)	<u>370.7</u>	<u>324.0</u>
	<u>501.0</u>	<u>420.3</u>
Net Working Capital	71.3	102.9

Notes:

	2009	2008
	Rs.	Rs.
A Trade Debtors	329.8	285.4
B Trade Creditors	236.2	210.8

Solution / Hint :**Computation of Liquidity and Working Capital Ratios for White Ash Limited**

	2009	2008
Current Ratio	$\frac{572.3}{501.0} = 1.14$	$\frac{523.2}{420.3} = 1.24$
Quick Ratio	$\frac{453.3}{501.0} = 0.90$	$\frac{414.2}{420.3} = 0.99$
Debtors' Payment Period	$\frac{329.8}{2,065.0} \times 365 = 58 \text{ days}$	$\frac{285.4}{1,788.7} \times 365 = 58 \text{ days}$
Stock Turnover Period	$\frac{119.0}{1,478.6} \times 365 = 29 \text{ days}$	$\frac{109.0}{1,304.0} \times 365 = 31 \text{ days}$
Creditors' Turnover Period	$\frac{236.2}{1,478.6} \times 365 = 58 \text{ days}$	$\frac{210.8}{1,304.0} \times 365 = 59 \text{ days}$

Analysis: White Ash Limited is a manufacturing group serving the construction industry, and so would be expected to have comparatively lengthy debtors' turnover period, because of the relatively poor cash flow in the construction industry. It is clear that the company compensates for this by ensuring that they do not pay for raw materials and other costs before they have sold their stocks of finished goods (hence the similarity of debtors' and creditors' turnover periods.)

White Ash Limited's current ratio is a little lower than average but its quick ratio is better than average and very little less than the current ratio. This suggests that the stock levels are strictly controlled, which is reinforced by the low stock turnover period. It would seem that working capital is tightly managed, to avoid the poor liquidity which could be caused by a high debtors' turnover period and comparatively high creditors.

AEC Q.37.

The balance sheet of Musa Limited is given for your consideration:

<i>Liabilities</i>		<i>Assets</i>	
Capital and Reserves	355	Net Fixed Assets	265
P & L Credit Balance	7	Cash	1
Loan from SFC	100	Receivables	125
Bank Overdraft	38	Stocks	128
Creditors	26	Prepaid Expenses	1
Provision for Tax	9	Intangible Assets	30
Proposed Dividend	15		
	<u>550</u>		<u>550</u>

Ratio Analysis

Based on the above information, you are required to compute the following ratios:

- Current Ratio
- Quick Ratio
- Debt Equity Ratio
- Proprietary ratio
- Net Working Capital
- If Net Sales is Rs.15 Lac, then what would be the Stock Turnover Ratio in times?
- Debtors Velocity Ratio if the sales are Rs. 15 Lacs.
- Creditors Velocity Ratio if purchases are Rs.10.5 Lacs.

Solution / Hint :**Computation of Different Ratios****(a) Current Ratio**

$$\text{Current Ratio} = \text{Current Assets} / \text{Current Liabilities} \\ = (125 + 128 + 1 + 1) / (38 + 26 + 9 + 15) = 255 / 88 = 2.89: 1$$

(b) Quick Ratio

$$\text{Quick Ratio} = \text{Quick Assets} / \text{Current Liabilities} \\ = (125 + 1) / 88 = 1.43: 1$$

(c) Debt Equity Ratio

$$\text{Debt to Equity Ratio} = \frac{\text{Total Liabilities}}{\text{Shareholders' Equity}} \quad \text{Or} \quad = \frac{\text{Long-term Liabilities}}{\text{Tangible Networth}} \\ = 100 / (362 - 30) \\ = 100 / 332 = 0.30: 1$$

(d) Proprietary Ratio

$$\text{Proprietary Ratio} = (\text{Tangible Networth} / \text{Tangible Assets}) \times 100 \\ = [(362 - 30) / (550 - 30)] \times 100 \\ = (332 / 520) \times 100 = 64\%$$

(e) Net Working Capital

$$\text{Net Working Capital Ratio} = \text{Current Assets} - \text{Current Liabilities (excluding short-term bank borrowings)} \\ = 255 - 88 = 167$$

(f) Stock Turnover Ratio in Times if Net Sales is Rs.15 Lacs.

$$\text{Stock Turnover Ratio} = \text{Net Sales} / \text{Average Stock} \\ = 1,500 / 128 = 12 \text{ times approximately}$$

(g) Debtors Velocity Ratio if Sales are Rs. 15 Lacs.

$$\text{Debtors Velocity Ratio} = (\text{Average Debtors} / \text{Net Sales}) \times 12 \\ = (125 / 1,500) \times 12 = 1 \text{ month}$$

(h) Creditors Velocity Ratio if Purchases are Rs.10.5 Lacs.

$$\text{Creditors Velocity Ratio} = (\text{Average Creditors} / \text{Purchases}) \times 12 \\ = (26 / 1,050) \times 12 = 0.3 \text{ months}$$

AEC Q.38.

The following accounting information and financial ratios of Mahurat Limited relate to the year ended 31st December, 2008:

1. Accounting Information:	2008
Gross Profit	15% of Sales
Net profit	8% of sales

Ratio Analysis

Raw materials consumed
Direct Wages
Stock of Raw Materials
Stock of Finished Goods
Debt Collection Period

20% of works cost
10% of work Cost
3 Months' Usage
6% of works cost
60 Days

2. Financial Ratios:

Fixed assets to sales	1:3
Fixed assets to Current assets	13:11
Current ratio	2:1
Long-term loans to Current liabilities	2:1
Capital to Reserves and Surplus	1:4

If value of fixed assets as on 31st December, 2007 amounted to Rs. 26 lakhs, you are required to prepare a summarised Profit and Loss Account of the company for the year ended 31st December, 2008 and also the Balance Sheet as on 31st December, 2008.

Solution / Hint :

(a) Working Notes:

(i) Calculation of Sales

$$\frac{\text{Fixed Assets}}{\text{Sales}} = \frac{1}{3}$$

$$\therefore \frac{26,00,000}{\text{Sales}} = \frac{1}{3} \Rightarrow \text{Sales} = \text{Rs. } 78,00,000$$

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(ii) Calculation of Current Assets

$$\frac{\text{Fixed Assets}}{\text{Current Assets}} = \frac{13}{11}$$

$$\therefore \frac{26,00,000}{\text{Current Assets}} = \frac{13}{11} \Rightarrow \text{Current Assets} = \text{Rs. } 22,00,000$$

(iii) Calculation of Raw Material Consumption and Direct Wages

	Rs.
Sales	78,00,000
Less: Gross Profit	<u>11,70,000</u>
Works Cost	<u>66,30,000</u>
Raw Material Consumption (20% of Works Cost)	Rs. 13,26,000
Direct Wages (10% of Works Cost)	Rs. 6,63,000

(iv) Calculation of Stock of Raw Materials (= 3 months usage)

$$= 13,26,000 \times \frac{3}{12} = \text{Rs. } 3,31,500$$

(v) Calculation of Stock of Finished Goods (= 6% of Works Cost)

$$= 66,30,000 \times \frac{6}{100} = \text{Rs. } 3,97,800$$

(vi) Calculation of Current Liabilities

$$\frac{\text{Current Assets}}{\text{Current Liabilities}} = 2$$

$$\frac{22,00,000}{\text{Current Liabilities}} = 2 \Rightarrow \text{Current Liabilities} = \text{Rs. } 11,00,000$$

(vii) Calculation of Debtors

$$\text{Average Collection Period} = \frac{\text{Debtors}}{\text{Credit Sales}} \times 365$$

$$\frac{\text{Debtors}}{78,00,000} \times 365 = 60 \Rightarrow \text{Debtors} = \text{Rs. } 12,82,191.78 \text{ or Rs. } 12,82,192$$

(viii) Calculation of Long term Loan

$$\frac{\text{Long term Loan}}{\text{Current Liabilities}} = \frac{2}{1}$$

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$$\frac{\text{Long term loan}}{11,00,000} = \frac{2}{1} \Rightarrow \text{Long term loan} = \text{Rs. } 22,00,000.$$

(ix) Calculation of Cash Balance

		Rs.
Current Assets		22,00,000
Less: Debtors	12,82,192	
Raw materials stock	3,31,500	
Finished goods stock	<u>3,97,800</u>	<u>20,11,492</u>
Cash balance		<u>1,88,508</u>

(x) Calculation of Net worth

Fixed Assets		26,00,000
Current Assets		<u>22,00,000</u>
Total Assets		48,00,000
Less: Long term Loan	22,00,000	
Current Liabilities	<u>11,00,000</u>	<u>33,00,000</u>
Net worth		<u>15,00,000</u>

Net worth = Share capital + Reserves = 15,00,000

$$\frac{\text{Capital}}{\text{Reserves and Surplus}} = \frac{1}{4} \Rightarrow \text{Share Capital} = 15,00,000 \times \frac{1}{5} = \text{Rs. } 3,00,000$$

$$\text{Reserves and Surplus} = 15,00,000 \times \frac{4}{5} = \text{Rs. } 12,00,000$$

**Profit and Loss Account of Mahurat Limited
for the year ended 31st December, 2008**

Particulars	Rs.	Particulars	Rs.
To Direct Materials	13,26,000	By Sales	78,00,000
To Direct Wages	6,63,000		
To Works (Overhead)	46,41,000		
Balancing figure			
To Gross Profit c/d (15% of Sales)	<u>11,70,000</u>		
	<u>78,00,000</u>		<u>78,00,000</u>
To Selling and Distribution Expenses (Balancing figure)	5,46,000	By Gross Profit b/d	11,70,000
To Net Profit (8% of Sales)	<u>6,24,000</u>		
	<u>11,70,000</u>		<u>11,70,000</u>

**Balance Sheet of Mahurat Limited
as on 31st December, 2008**

Liabilities	Rs.	Assets	Rs.
Share Capital	3,00,000	Fixed Assets	26,00,000
Reserves and Surplus	12,00,000	Current Assets:	
Long term loans	22,00,000	Stock of Raw Material	3,31,500
Current liabilities	11,00,000	Stock of Finished Goods	3,97,800
		Debtors	12,82,192
		Cash	<u>1,88,508</u>
	<u>48,00,000</u>		<u>48,00,000</u>

AEC Q.39.

Differentiate between the Global Depository Receipts and American Depository Receipts.

Source of
Finance

Solution / Hint :

Global Depository Receipts (GDRs) and American Depository Receipts (ADRs)

Global Depository Receipt is a negotiable certificate denominated in US dollars, which represents a non-US company's publicly, traded local currency equity.

GDRs are created when the local currency shares of an Indian company are delivered to the depository's local custodian bank, against which depository bank issues depository receipts in US dollar.

The GDRs may be freely traded in the overseas market like any other dollar denominated security either on a foreign stock exchange or in the over-the-counter market of qualified institutional buyers (QIBs). By issue of GDRs, Indian companies are able to tap global equity market to raise foreign currency funds by way of equity. It has distinct advantage over debt as there is no repayment of the principal and service costs are lower. Rule 144A of SEC of USA permits companies from outside USA to offer their GDRs to QIBs.

Whereas, American Depository Receipts (ADRs) are depository receipts issued by a company in the USA and are governed by the provisions of Security and Exchange Commission of USA. As the regulations are severe, Indian Companies tap the American market through private debt placements of GDRs listed in London Luxemburg Stock Exchanges.

Apart from legal impediments, ADRs are costlier than GDRs. Legal fees are considerably high for US listing. Registration fee in USA is also substantial. Hence, ADRs are less popular than GDR's.

AEC Q.40. Discuss in brief the concept of "Venture Capital Financing".

Source of Finance

Solution / Hint :**Concept of Venture Capital Financing**

The venture capital financing refers to financing of new high risky venture promoted by qualified entrepreneurs who lack experience and funds to give shape to their ideas. In broad sense, under venture capital financing, venture capitalists make investments to purchase equity or debt securities from inexperienced entrepreneurs who undertake highly risky ventures with a potential of success. Some of the characteristics of Venture Capital Funding are:

- ➔ It is basically equity finance in new companies.
- ➔ It can be viewed as a long-term investment in growth-oriented small/medium firms.
- ➔ Apart from providing funds, the investor also provides support in form of sales strategy, business networking and management expertise, enabling the growth of the entrepreneur.

AEC Q.41. Discuss the advantages of raising finance by issue of debentures.

Source of Finance

Solution / Hint :**Advantages of Raising Finance by Issue of Debentures**

- (ii) The cost of debentures is much lower than the cost of preference or equity capital as the interest is tax-deductible. Also, investors consider debenture investment safer than equity or preferred investment and, hence, may require a lower return on debenture investment.
- (iii) Debenture financing does not result in dilution of control.
- (iv) In a period of rising prices, debenture issue is advantageous. The fixed monetary outgo decreases in real terms as the price level increases.

AEC Q.42. Discuss the features of Trade Credit.

Source of Finance

Solution / Hint :**Features of Trade Credit**

Trade Credit represents credit granted by suppliers of goods, etc., as an incident of sale. The usual duration of such credit is

15 to 90 days. It generates automatically in the course of business and is common to almost all business operations. It can be in the form of an 'open account' or 'bills payable'. Trade credit is preferred as a source of finance because it is without any explicit cost and till a business is a going concern it keeps on rotating. Another very important characteristic of trade credit is that it enhances automatically with the increase in the volume of business.

AEC Q.43. Explain some of the characteristics of Debentures.

Source of Finance

Solution / Hint :

Characteristics of Debentures

Some of the characteristics of Debentures or Bonds are:

- ➔ Debentures are normally issued in different denominations ranging from Rs. 100 to Rs. 1,000 and carry different rates of interest
- ➔ Normally, debentures are issued on the basis of a debenture trust deed which lists the terms and conditions on which the debentures are floated.
- ➔ Debentures are either secured or unsecured.
- ➔ The cost of capital raised through debentures is quite low since the interest payable on debentures can be charged as an expense before tax.
- ➔ From the investors' point of view, debentures offer a more attractive prospect than the preference shares since interest on debentures is payable whether or not the company makes profit.
- ➔ Debentures are thus instruments for raising long-term debt capital.

AEC Q.44. Write short notes on Debt Securitisation.

Source of Finance

Solution / Hint :

Debt Securitisation

It is a method of recycling of funds. It is especially beneficial to financial intermediaries to support the lending volumes. Assets generating steady cash flows are packaged together and against this asset pool, market securities can be issued, e.g. housing finance, auto loans, and credit card receivables.

Process of Debt Securitisation

- (i) **The origination function** – A borrower seeks a loan from a finance company or a bank. The credit worthiness of borrower is evaluated and contract is entered into with repayment schedule structured over the life of the loan.
- (ii) **The pooling function** – Similar loans on receivables are clubbed together to create an underlying pool of assets. The pool is transferred in favour of Special Purpose Vehicle (SPV), which acts as a trustee for investors.
- (iii) **The securitisation function** – SPV will structure and issue securities on the basis of asset pool. The securities carry a coupon and expected maturity which can be asset-based/mortgage-based. These are generally sold to investors through merchant bankers. Investors are – pension funds, mutual funds, insurance funds.

The process of securitisation is without recourse i.e. investor bears the credit risk or risk of default. Credit enhancement facilities like insurance, letter of credit (LOC) and guarantees are also provided.

AEC Q.45. Write short notes on External Commercial Borrowings (ECBs).

Source of Finance

Solution / Hint :

External Commercial Borrowings (ECBs)

External Commercial Borrowings (ECBs) refer to commercial loans (in the form of bank loans, buyers credit, suppliers credit, securitised instruments (e.g.

floating rate notes and fixed rate bonds) availed from non-resident lenders with minimum average maturity of 3 years. Borrowers can raise ECBs through internationally recognised sources like (i) international banks, (ii) international capital markets, (iii) multilateral financial institutions such as the IFC, ADB etc, (iv) export credit agencies, (v) suppliers of equipment, (vi) foreign collaborators and (vii) foreign equity holders.

External Commercial Borrowings can be accessed under two routes viz (i) Automatic route and (ii) Approval route. Under the Automatic route there is no need to take the RBI/Government approval whereas such approval is necessary under the Approval route. Company's registered under the Companies Act and NGOs engaged in micro finance activities are eligible for the Automatic Route whereas Financial Institutions and Banks dealing exclusively in infrastructure or export finance and the ones which had participated in the textile and steel sector restructuring packages as approved by the government are required to take the Approval Route.

AEC Q.46. Write short notes on the Bridge Finance.

Source of Finance

Solution / Hint :

Bridge Finance

Bridge finance refers to loans taken by a company normally from commercial banks for a short period because of pending disbursement of loans sanctioned by financial institutions. Though it is a of short term nature but since it is an important step in the facilitation of long term loan, therefore it is being discussed along with the long term sources of funds. Normally, it takes time for financial institutions to disburse loans to companies. However, once the loans are approved by the term lending institutions, companies, in order not to lose further time in starting their projects, arrange short term loans from commercial banks.

The bridge loans are repaid/adjusted out of the term loans as and when disbursed by the concerned institutions. Bridge loans are normally secured by hypothecating movable assets, personal guarantees and demand promissory notes. Generally, the rate of interest on bridge finance is higher as compared with that on term loans.

AEC Q.47. Write short notes on Venture Capital Financing.

Source of Finance

Solution / Hint :

Venture Capital Financing

It refers to financing of new high risky venture promoted by qualified entrepreneurs who lack experience and funds, to give shape to their ideas. In other words, under venture capital financing venture capitalist make investment to purchase equity or debt securities from inexperienced entrepreneurs who undertake highly risky ventures with a potential of success.

Some common methods of venture capital financing are as follows:

- (i) **Equity financing:** When funds are required for a longer period but the firm fails to provide returns to the investors during the initial stages, the venture capital finance is provided by way of equity share capital.
- (ii) **Conditional loan:** A conditional loan is repayable in the form of a royalty after the venture is able to generate 'sales'. Here royalty ranges between 2 to 15 per cent. No interest is paid on such loans.
- (iii) **Income note:** It combines the features of both conventional and conditional loans. The concern has to pay viz., interest and royalty on sales but at substantially low rates.
- (iv) **Participating debenture:** Such a security carries charges in three phases – in the start - up phase no interest is

charged, next stage a low rate of interest is charged up to a particular level of operation, after that, a high rate of interest is required to be paid.

AEC Q.48. Write short notes on the Perpetuity.

Time Value of Money

Solution / Hint :

Perpetuity

Perpetuity is an annuity in which the periodic payments or receipts begin on a fixed date and continue indefinitely or perpetually. Fixed coupon payments on permanently invested (irredeemable) sums of money are prime examples of perpetuities.

The formula for evaluating perpetuity is relatively straight forward. Two points which are important to understand in this regard are:

- (i) The value of the perpetuity is finite because receipts that are anticipated far in the future have extremely low present value (today's value of the future cash flows).
- (ii) Additionally, because the principal is never repaid, there is no present value for the principal.

Therefore the price of perpetuity is simply the coupon amount over the appropriate discount rate or yield.

AEC Q.49. Mr. Pinto borrowed Rs. 1,00,000 from a bank on a one-year 8% term loan, with interest compounded quarterly. Determine the effective annual interest on the loan?

Time Value of Money

Solution / Hint :

Calculation of Effective Annual Interest Rate

Effective Interest Rate (EAR) is calculated as follows:

$$EAR = \left(1 + \frac{r}{m}\right)^m - 1$$

Where,

r = Stated interest rate

m = Compounding frequency

$$EAR = \left(1 + \frac{0.08}{4}\right)^4 - 1$$

$$= 1.0824 - 1 = 0.0824$$

$$= 8.24\%$$

Effective Annual Interest Rate = 8.24%.

AEC Q.50. Suppose Adit has borrowed a 3-year loan of Rs. 10,000 at 9 per cent from his employer to buy a motorcycle. If his employer requires three equal end-of-year repayments, then calculate the annual instalment.

Time Value of Money

Solution / Hint :

Calculation of Annual Installment

$$10,000 = A \times PVFA_{3,0.09}$$

$$10,000 = A \times 2.531$$

$$A = \frac{10,000}{2.531} = \text{Rs. } 3,951$$

By paying Rs. 3,951 each year for three years, Adit shall completely pay-off his loan with 9 per cent interest. This can be observed from the loan-amortisation schedule given under:

Loan Amortisation Schedule

End of Year	Payment	Interest	Principal Repayment	Outstanding Balance
0				10,000
1	3,951	900	3,051	6,949
2	3,951	625	3,326	3,623
3	3,951	326	3,625*	0

*Rounding off error.

He pays Rs. 3,951 at the end of each year. At the end of the first year, Rs. 900 of this amount is interest (Rs. $10,000 \times 0.09$), and the remaining amount (Rs. 3,051) is applied towards the repayment of principal. The balance of loan at the beginning of the second year is Rs. 6,949 (Rs. $10,000 - \text{Rs. } 3,051$). As for the first year, calculations for interest and principal repayment can be made for the second and third years. At the end of the third year, the loan is completely paid-off.

- AEC Q.51.** The cost of a new mobile phone is Rs. 10,000. If the interest rate is 5 percent, how much would you have to set aside now to provide this sum in five years?

Time Value of Money

Solution / Hint :

$1 \div (1.05)^5 = 0.784$. Therefore, you need to set aside $10,000 \times 0.784 = \text{Rs. } 7,840$.

- AEC Q.52.** You are required to calculate the effective annual rate of interest of:
(a) 15% nominal per annum compounded quarterly; and
(b) 24% nominal per annum compounded monthly.

Time Value of Money

Solution / Hint :**(a) Computation of Effective Rate of Interest if Nominal rate is 15% per annum**

15% per annum (nominal rate) = 3.75% per quarter.

The effective annual rate of interest = $[1.0375^4 - 1] = 0.1587 = 15.87\%$

(b) Computation of Effective Rate of Interest if Nominal rate is 24% per annum

24% per annum (nominal rate) = 2% per month.

The effective annual rate of interest = $[1.02^{12} - 1] = 0.2682 = 26.82\%$

- AEC Q.53.** You have invested Rs. 60,476 at 8 percent. After paying the above tuition fees, how much would remain at the end of the six years?

Time Value of Money

Solution / Hint :

$1.08^6 = 1.587$. Therefore, at the end of 6 years you would have $1.587 \times (60,476 - 55,476) = \text{Rs. } 7,935$.

- AEC Q.54.** You have to pay tuition fees amounting to Rs. 12,000 a year at the end of each of the next six years. If the interest rate is 8 percent, how much do you need to set aside today to cover these fees?

Time Value of Money

Solution / Hint :

The present value of Re.1 a year for 6 years at 8% is 4.623. Therefore, you need to set aside $12,000 \times 4.623 = \text{Rs. } 55,476$.

- AEC Q.55.** Anand Toys maintains a separate account for cash disbursement. Total

Working

disbursements are Rs. 2,62,500 per month. Administrative and transaction cost of transferring cash to disbursement account is Rs. 25 per transfer. Marketable securities yield is 7.5% per annum. Determine the optimum cash balance according to William J Baumol model.

Solution / Hint :

Determination of Optimal Cash Balance according to William J. Baumol Model

The formula for determining optimum cash balance is:

$$C = \sqrt{\frac{2U \times P}{S}}$$

Where,

C = Optimum cash balance

U = Annual (or monthly) cash disbursement

P = Fixed cost per transaction.

S = Opportunity cost of one rupee p.a. (or p.m.)

$$\begin{aligned} C &= \sqrt{\frac{2 \times 2,62,500 \times 12 \times 25}{0.075}} \\ &= \sqrt{\frac{15,75,00,000}{0.075}} \\ &= \sqrt{2,10,00,00,000} \end{aligned}$$

Optimum cash balance, C, = Rs. 45,826

Capital
Management
– Cash
Management

AEC Q.56.

All of the following statements in regard to working capital are correct except

- (i) Current liabilities are an important source of financing for many small firms.
- (ii) Profitability varies inversely with liquidity.
- (iii) The hedging approach to financing involves matching maturities of debt with specific financing needs.
- (iv) Financing permanent inventory buildup with long-term debt is an example of an aggressive working capital policy.

Solution / Hint :

The requirement is to determine the false statement regarding working capital management. Answer (iv) is correct because financing permanent inventory buildup with long-term debt is an example of a conservative working capital policy. Answers (i), (ii), and (iii) are all accurate statements about working capital management.

Working
Capital
Management
– Basic

AEC Q.57.

Differentiate between the Spontaneous Sources and Negotiated Sources of Working Capital Finance.

Solution / Hint :

Spontaneous Sources and Negotiated Sources of Working Capital Finance

Spontaneous sources of finance are those which naturally arise in the course of business operations. Trade credit credit from employees, credit from suppliers of services, etc. are some of the examples which may be quoted in this respect Whereas, on the other hand, Negotiated sources, as the name implies, are those which have to be specifically negotiated with lenders say, commercial banks, financial institutions, general public etc.

Working
Capital
Management
– Basic

AEC Q.58.

Differentiate between the William J. Baumal and Miller- Orr Cash Management Model.

Solution / Hint :

Working
Capital
Management
– Cash
Management

William J. Baumal and Miller- Orr Cash Management Model

According to William J. Baumal's Economic order quantity model optimum cash level is that level of cash where the carrying costs and transaction costs are the minimum. The carrying costs refer to the cost of holding cash, namely, the interest foregone on marketable securities. The transaction cost refers to the cost involved in getting the marketable securities converted into cash. This happens when the firm falls short of cash and has to sell the securities resulting in clerical, brokerage, registration and other costs.

The optimum cash balance according to this model will be that point where these two costs are equal. The formula for determining optimum cash balance is:

$$C = \sqrt{\frac{2U \times P}{S}}$$

Where,

C = Optimum cash balance

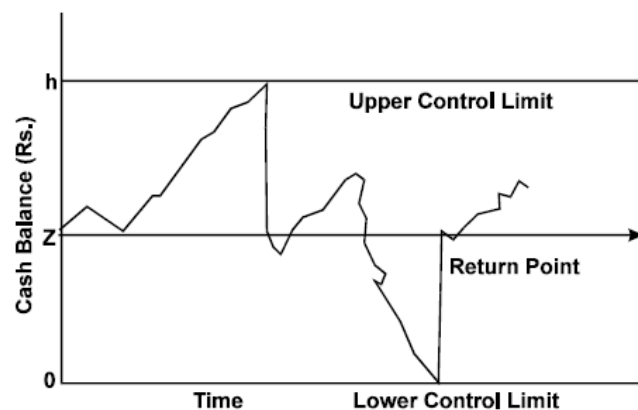
U = Annual (monthly) cash disbursements

P = Fixed cost per transaction

S = Opportunity cost of one rupee p.a. (or p.m.)

Miller-Orr cash management model is a net cash flow stochastic model. This model is designed to determine the time and size of transfers between an investment account and cash account. In this model control limits are set for cash balances. These limits may consist of h as upper limit, z as the return point, and zero as the lower limit.

When the cash balances reaches the upper limit, the transfer of cash equal to h-z is invested in marketable securities account. When it touches the lower limit, a transfer from marketable securities account to cash account is made. During the period when cash balance stays between (h, z) and (z, 0) i.e high and low limits no transactions between cash and marketable securities account is made. The high and low limits of cash balance are set up on the basis of fixed cost associated with the securities transactions, the opportunity cost of holding cash and the degree of likely fluctuations in cash balances. These limits satisfy the demands for cash at the lowest possible total costs. The diagram given below illustrates the Miller – Orr model.



MILLER-ORR CASH MANAGEMENT MODEL

AEC Q.59.

The following information is given for Goodluck Limited:

The company manufactures a product which sells for Rs. 50 and the variable cost of each unit is as follows.

Material	Rs. 26
Labour (wages)	Rs. 8
Variable overhead	Rs. 2

Fixed overheads (excluding depreciation) are budgeted at Rs. 5,500 per month payable on the 23rd of each month.

Additional information:

(i) Sales for the last two months of this year.

November	December
1,000	1,200

(ii) Budgeted sales for next year.

January	February	March	April	May	June
1,400	1,600	1,800	2,000	2,200	2,600

(iii) Production quantities for the last two months of this year.

November	December
1,200	1,400

(iv) Budgeted production units for next year.

January	February	March	April	May	June
1,600	2,000	2,400	2,600	2,400	2,200

(v) Wages are paid in the month when output is produced.

(vi) Variable overhead is paid 50 percent in the month when the cost is incurred and 50 percent the following month.

(vii) Suppliers of material are paid two months after the material is used in production.

(viii) Customers are expected to pay at the end of the second month following sale.

(ix) A new machine is scheduled for January costing Rs. 34,000; this is to be paid for in February.

(x) An old machine is to be sold for cash in January for Rs. 1,200.

(xi) The company expects to have a cash balance of Rs. 35,500 on 1st January.

You are required to:

(a) Prepare a month by month cash budget for the first six months of next year.

(b) Discuss the actions management might take in the light of the cash budget you have prepared.

Solution / Hint :

(a) Working Notes

(i) Sales Value

	Nov	Dec	Jan	Feb	Mar	Apr
Sales (units)	1,000	1,200	1,400	1,600	1,800	2,000
Sales value at Rs. 50 (Rs.)	50,000	60,000	70,000	80,000	90,000	1,00,000

Sales revenue will be received two months after the sale is made.

(ii) Production Costs

	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Production (units)	1,200	1,400	1,600	2,000	2,400	2,600	2,400	2,200
	'000	'000	'000	'000	'000	'000	'000	'000
Wages at Rs. 8	-	-	12.8	16.0	19.2	20.8	19.2	17.6
Variable o/h at Rs. 2	2.4	2.8	3.2	4.0	4.8	5.2	4.8	4.4

Working
Capital
Management
– Cash
Management

50% paid in month	1.2	1.4	1.6	2.0	2.4	2.6	2.4	2.2
50% in following month	-	1.2	1.4	1.6	2.0	2.4	2.6	2.4
Total payment	-	-	3.0	3.6	4.4	5.0	5.0	4.6
Material at Rs. 26	31.2	36.4	41.6	52.0	62.4	67.6	62.4	57.2
Payment after two months			31.2	36.4	41.6	52.0	62.4	67.6

Cash Budget for First Six Months of Next Year

	Jan '000	Feb '000	Mar '000	Apr '000	May '000	June '000
Receipts						
Sales Revenue	50.0	60.0	70.0	80.0	90.0	100.0
Sale of Old Machine	1.2	-	-	-	-	-
	51.2	60.0	70.0	80.0	90.0	100.0
Payments						
Wages	12.8	16.0	19.2	20.8	19.2	17.6
Variable Overhead	3.0	3.6	4.4	5.0	5.0	4.6
Material	31.2	36.4	41.6	52.0	62.4	67.6
Fixed Overhead	5.5	5.5	5.5	5.5	5.5	5.5
New Machine	-	34.0	-	-	-	-
	52.5	95.5	70.7	83.3	92.1	95.3
Net Cash flow	(1.3)	(35.5)	(0.7)	(3.3)	(2.1)	4.7
Opening Cash Balance	35.5	34.2	(1.3)	(2.0)	(5.3)	(7.4)
Closing Cash Balance	34.2	(1.3)	(2.0)	(5.3)	(7.4)	(2.7)

(b) The cash budget shows that Goodluck Limited will require more cash than is available from February onwards. Management might decide to arrange an overdraft to cover the deficit. Alternatively, they could reduce or avoid the deficit by taking actions such as the following:

- Negotiate credit facilities or stage payments for the purchase of the machine.
- Defer the purchase of the machine or lease it instead of buying.
- Defer payments to material suppliers, although the company already takes two months credit for these purchases.
- Attempt to collect payment from debtors more quickly.

AEC Q.60.

Sakya Limited has the following data for your consideration:

- The minimum cash balance is Rs. 8,000.
- The variance of daily cash flows is 40,00,000, equivalent to a standard deviation of Rs. 2,000 per day.
- The transaction cost for buying or selling securities is Rs. 50.
- The interest rate is 0.025 percent per day.

You are required to formulate a decision rule using the Miller- Orr model for cash management.

Solution / Hint :

Working
Capital
Management
– Cash
Management

Computation using Miller Orr Cash Management Model

The spread between the upper and the lower cash balance limits is calculated as follows:

$$\text{Spread} = 3 \left(\frac{3}{4} \times \frac{\text{Transaction cost} \times \text{Variance of cash flows}}{\text{Interest rate}} \right)^{\frac{1}{3}}$$

$$= 3 \left[\frac{3}{4} \times \frac{50 \times 40,00,000}{0.00025} \right]^{\frac{1}{3}} = \text{Rs. } 25,303$$

= Rs. 25,300 approx.

The upper limit and return point are now calculated as:

Upper Limit = Lower Limit + Rs. 25,300 = Rs. 8,000 + Rs. 25,300 = Rs. 33,300

Return Point = Lower limit + $\frac{1}{3} \times \text{spread}$

= Rs. 8,000 + $\frac{1}{3} \times \text{Rs. } 25,300$ = Rs. 16,433 or Rs. 16,400 approx.

Decision Rule: If the cash balance reaches Rs. 33,300, buy Rs. 16,900 (= 33,300 - 16,400) in marketable securities. If the cash balance falls to Rs. 8,000, sell Rs. 8,400 of marketable securities for cash.

AEC Q.61.

Nalanda Limited's average inventory is Rs. 1,00,00,000 and annual sales are Rs. 4,00,00,000. You are required to calculate the inventory conversion period.

Solution / Hint :**Calculation of Inventory Conversion Period**

$$\text{Inventory Conversion Period} = \frac{\text{Average Inventory}}{\text{Sales per day}}$$

$$\text{Inventory Conversion Period} = \frac{\text{Rs. } 1,00,00,000}{\text{Rs. } 4,00,00,000 / 365 \text{ days}} = 91 \text{ days}$$

Working
Capital
Management
– Inventory
Management

AEC Q.62.

The demand for a commodity is 40,000 units a year, at a constant rate. It costs Rs. 20 to place an order, and 40 paise to hold a unit for a year. Find the order size to minimize stock costs, the number of orders placed each year, and the length of the stock cycle.

Solution / Hint :**Computation of Order Size, Number of Orders and Length of the Stock Cycle**

$$\begin{aligned} \text{EOQ} &= \sqrt{\frac{2 \times 20 \times 40,000}{0.4}} \\ &= \sqrt{\frac{16,00,000}{0.4}} = \sqrt{40,00,000} \\ &= 2,000 \text{ units} \end{aligned}$$

This means that there will be $\frac{40,000}{2,000} = 20$ orders placed each year, so that the stock cycle is once every $52 \div 20 = 2.6$ weeks.

Total costs = $(20 \times \text{Rs. } 20) + \left(\frac{2,000}{2} \times 0.40 \right) = \text{Rs. } 800$ a year.

Working
Capital
Management
– Inventory
Management

AEC Q.63.

The following information relates to material "A" that is used by Gamma Company:

Annual usage in units	20,000
Working days per year	250
Safety stock in units	800
Normal lead time in working days	30

The units of the material "A" will be required evenly throughout the year. Compute

Working
Capital
Management
– Inventory
Management

the order point.

Solution / Hint :

Determination of Order Point for Material A

When safety stock is maintained, the order point is computed as follows:

Order Point = Daily demand × Lead time in days + Safety stock

Daily demand = 20,000 units ÷ 250 days

= 80 units

Order Point = [(80 × 30) + 800]

= 3,200 units

AEC Q.64.

Vijaylaxmi Limited, a newly formed company, has applied to a commercial bank for the first time for financing its working capital requirements. The following information is available about the projections for the current year:

Estimated level of activity: 1,04,000 completed units of production plus 4,000 units of work-in-progress. Based on the above activity, estimated cost per unit is:

Raw material	Rs. 80 per unit
Direct wages	Rs. 30 per unit
Overheads (exclusive of depreciation)	Rs. 60 per unit
Total cost	Rs. 170 per unit
Selling price	Rs. 200 per unit

Raw materials in stock: Average 4 weeks consumption, work-in-progress (assume 50% completion stage in respect of conversion cost) (materials issued at the start of the processing).

Finished goods in stock	8,000 units
Credit allowed by suppliers	Average 4 weeks
Credit allowed to debtors/receivables	Average 8 weeks
Lag in payment of wages	Average 1 $\frac{1}{2}$ weeks

Cash at banks (for smooth operation) is expected to be Rs. 25,000.

Assume that production is carried on evenly throughout the year (52 weeks) and wages and overheads accrue similarly. All sales are on credit basis only.

You are required to determine:

- The net working capital required;
- The maximum permissible bank finance under first and second methods of financing as per Tandon Committee Norms.

Solution / Hint :

- Estimate of the Requirement of Working Capital

	Rs.	Rs.
A. Current Assets:		
Raw material stock (Refer to Working note 3)	6,64,615	
Work in progress stock (Refer to Working note 2)	5,00,000	
Finished goods stock (Refer to Working note 4)	13,60,000	
Debtors (Refer to Working note 5)	29,53,846	
Cash and Bank balance	25,000	55,03,461

Working
Capital
Management
– MPBF –
Tandon
Committee

B. *Current Liabilities:*

Creditors for raw materials (Refer to Working note 6)	7,15,740	
Creditors for wages (Refer to Working note 7)	<u>91,731</u>	8,07,471
Net Working Capital (A-B)		<u>46,95,990</u>

(ii) **The Maximum Permissible Bank Finance as per Tandon Committee Norms***First Method:*

75% of the net working capital financed by bank i.e. 75% of Rs. 46,95,990

(Refer to (i) above)

= Rs. 35,21,993

Second Method:

(75% of Current Assets)- Current liabilities (i.e. 75% of Rs. 55,03,461)-Rs. 8,07,471

(Refer to (i) above)

= Rs. 41,27,596 – Rs. 8,07,471

= Rs. 33,20,125

Working Notes:1. *Annual Cost of Production*

	<i>Rs.</i>
Raw material requirements (1,04,000 units × Rs. 80)	83,20,000
Direct wages (1,04,000 units × Rs. 30)	31,20,000
Overheads (exclusive of depreciation)(1,04,000 × Rs. 60)	<u>62,40,000</u>
	<u>1,76,80,000</u>

2. *Work in progress Stock*

	<i>Rs.</i>
Raw material requirements (4,000 units × Rs. 80)	3,20,000
Direct wages (50% × 4,000 units × Rs. 30)	60,000
Overheads (50% × 4,000 units × Rs. 60)	<u>1,20,000</u>
	<u>5,00,000</u>

3. *Raw material Stock*

It is given that raw material in stock is average 4 weeks consumption. Since, the company is newly formed, the raw material requirement for production and work in progress will be issued and consumed during the year.

CS/CA

SUCCESS

Obstacles are those frightful things you see when you take your eyes off your goal.




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Hence, the raw material consumption for the year (52 weeks) is as follows:

	Rs.
For Finished goods	83,20,000
For Work in progress	<u>3,20,000</u>
	<u>86,40,000</u>
Raw material stock	$\frac{\text{Rs. } 86,40,000}{52 \text{ weeks}} \times 4 \text{ weeks}$
	i.e. Rs. 6,64,615

4. *Finished Goods Stock*

8,000 units @ Rs. 170 per unit = Rs. 13,60,000

5. *Debtors for Sale*

Credit allowed to debtors	Average 8 weeks
Credit sales for year (52 weeks) i.e. (1,04,000 units-8,000 units)	96,000 units
Selling price per unit	Rs. 200
Credit sales for the year (96,000 units × Rs. 200)	Rs. 1,92,00,000
Debtors	$\frac{\text{Rs. } 1,92,00,000}{52 \text{ weeks}} \times 8 \text{ weeks}$
	i.e Rs. 29,53,846

6. *Creditors for Raw material:*

Credit allowed by suppliers	Average 4 weeks
Purchases during the year (52 weeks) i.e. (Rs. 83,20,000 + Rs. 3,20,000 + Rs. 6,64,615) (Refer to Working notes 1,2 and 3 above)	Rs. 93,04,615
Creditors	$\frac{\text{Rs. } 93,04,615}{52 \text{ weeks}} \times 4 \text{ weeks}$
	i.e Rs. 7,15,740

7. *Creditors for Wages*

Lag in payment of wages	Average $1 \frac{1}{2}$ weeks
Direct wages for the year (52 weeks) i.e. (Rs. 31,20,000 + Rs. 60,000) (Refer to Working notes 1 and 2 above)	Rs. 31,80,000
Creditors	$\frac{\text{Rs. } 31,80,000}{52 \text{ weeks}} \times 1 \frac{1}{2} \text{ weeks}$
	i.e. Rs. 91,731

AEC Q.65.

Royal Sporting Company has Rs. 50 lakhs in inventory and Rs. 20 lakhs in accounts receivable. Its average daily sales is Rs. 1,00,000. The company's payables deferral period is 30 days. You are required to calculate the length of the company's cash conversion period?

**Working
Capital
Management
– Operating
Cycle**

Solution / Hint :

Calculation of the Conversion Cycle

Cash Conversion Period = Inventory Conversion Period + Receivables Collection Period – Payable Deferral Period

Inventory Conversion Period = Rs. 50,00,000 / Rs. 100,000 = 50 days

Receivable Conversion Period = Rs. 20,00,000 / Rs. 100,000 = 20 days.

Therefore, Cash Conversion Cycle = 50 days + 20 days – 30 days = 40 days

AEC Q.66.

Temco Limited manufactures foundry equipments and caters to the steel industry. To assess the need of working capital, the following data relating to Temco Limited is given for your consideration:

Turnover for the year	Rs. 15,00,000
<i>Costs as percentages of Sales</i>	<i>%</i>
Direct Materials	30
Direct Labour	25
Variable Overheads	10
Fixed Overheads	15
Selling and Distribution Overheads	5

Additional information:

On an average:

- (a) Debtors take 2.5 months before payment.
- (b) Raw materials are in stock for three months.
- (c) Work-in-progress represents two months of half produced goods.
- (d) Finished goods represent one month's production.
- (e) Credit is taken as follows:

Direct Materials	2 months
Direct Labour	1 week
Variable Overheads	1 month
Fixed Overheads	1 month
Selling and Distribution	0.5 months
- (f) Work-in-progress and finished goods are valued at material, labour and variable expense cost.

You are required to prepare a projected statement of working capital requirement of Temco Limited assuming that the labour force is paid for 50 working weeks a year.

Solution / Hint :

Working
Capital
Management
– Projected
Statement

CS/CA

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(a) Calculation of Annual Costs Incurred

		Rs.
Direct Materials	30% of Rs. 15,00,000	4,50,000
Direct Labour	25% of Rs. 15,00,000	3,75,000
Variable Overheads	10% of Rs. 15,00,000	1,50,000
Fixed Overheads	15% of Rs. 15,00,000	2,25,000
Selling and Distribution	5% of Rs. 15,00,000	75,000

(b) Calculation of Average Value of Current Assets

		Rs.	Rs.
Raw Materials	3/12 × Rs. 4,50,000		1,12,500
Work-in-progress			
Materials (50% complete)	1/12 × Rs. 4,50,000	37,500	
Labour (50% complete)	1/12 × Rs. 3,75,000	31,250	
Variable Overheads (50% complete)	1/12 × Rs. 1,50,000	12,500	
			81,250
Finished Goods			
Materials	1/12 × Rs. 4,50,000	37,500	
Labour	1/12 × Rs. 3,75,000	31,250	
Variable Overheads	1/12 × Rs. 1,50,000	12,500	
			81,250
Debtors	2.5/12 × Rs. 15,00,000	3,12,500	
		<u>5,87,500</u>	

(c) Calculation of Average Value of Current Liabilities

Materials	2/12 × Rs. 4,50,000	75,000
Labour	1/50 × Rs. 3,75,000	7,500
Variable Overheads	1/12 × Rs. 1,50,000	12,500
Fixed Overheads	1/12 × Rs. 2,25,000	18,750
Selling and Distribution	0.5/12 × Rs. 75,000	3,125
		<u>1,16,875</u>
Working Capital Requirement (b) – (c)		<u>4,70,625</u>

Note: It has been assumed that all the direct materials are allocated to work-in-progress when production starts.

AEC Q.67.

If Beta Company's terms of trade are 3/10, net 45 with a particular supplier, then calculate the cost on an annual basis of not taking the discount? Assume a 360-day year.

Solution / Hint :

Calculation of Cost of Not taking a Trade Discount

The formula for computing the interest is as under :

$$\text{Interest} = \frac{\text{Discount percent}}{100\% - \text{Discount percent}} \times \frac{360 \text{ days}}{\text{Total pay period} - \text{Discount period}}$$

$$= \frac{3\%}{100\% - 3\%} \times \frac{360 \text{ days}}{45 \text{ days} - 10 \text{ days}} = 31.81\%$$

Cost of Not taking a Trade Discount = 31.81%

AEC Q.68.

Indian Metals Limited is considering a change of credit policy which will result in slowing down in the average collection period from one to two months. The relaxation in credit standards is expected to produce an increase in sales in each year amounting to 25% of the current sales volume.

Sales Price per unit	Rs. 10.00
Profit per unit (before interest)	Rs. 1.50
Current Sales Revenue per annum	Rs. 24,00,000
Required Rate of Return on Investment	20%

Working
Capital
Management
– Receivable
Management

Working
Capital
Management
– Receivable
Management

Assume that the 25% increase in sales would result in additional stocks of Rs. 1,00,000 and additional creditors of Rs. 20,000. You are to advise the company on whether or not it should extend the credit period offered to customers, in the following circumstances:

- (i) If all customers take the longer credit of two months.
- (ii) If existing customers do not change their payment habits, and only the new customers take a full two months' credit.

Solution / Hint :

Change in Credit Policy

The change in credit policy would be justifiable, if the rate of return on the additional investment in working capital exceeds 20%.

Extra Profit

Profit Margin $\left(\frac{\text{Rs. 1.50}}{\text{Rs. 10}} \right)$ 15%

Increase in Sales Revenue (Rs. 24,00,000 × 25%) Rs. 6,00,000

Increase in Profit (15% × Rs. 6,00,000) Rs. 90,000

Total Sales Revenue (Rs. 24,00,000 + Rs. 6,00,000) Rs. 30,00,000

(i) Extra Investment, if All Debtors take Two Months' Credit

	Rs.
Average Debtors after the Sales Increase $(2/12 \times \text{Rs. } 30,00,000)$	5,00,000
Current Average Debtors $(1/12 \times \text{Rs. } 24,00,000)$	<u>2,00,000</u>
Increase in Debtors	3,00,000
Increase in Stocks	<u>1,00,000</u>
	4,00,000
Increase in Creditors	<u>(20,000)</u>
Net Increase in Working Capital	<u>3,80,000</u>
Return on Extra Investment = $\frac{\text{Rs. 90,000}}{\text{Rs. 3,80,000}}$	= 23.7%

(ii) Extra Investment, if only the New Debtors take Two Months' Credit

	Rs.
Increase in Debtors $(2/12 \times \text{Rs. } 6,00,000)$	1,00,000
Increase in Stocks	<u>1,00,000</u>
	2,00,000
Increase in Creditors	<u>(20,000)</u>
Net Increase in Working Capital Investment	<u>1,80,000</u>
Return on Extra Investment = $\frac{\text{Rs. 90,000}}{\text{Rs. 1,80,000}}$	= 50%

Advise: In both the cases (i) and (ii), the new credit policy appears to be worthwhile. Furthermore, the cost profile of the product can also support extra sales. If the firm has high fixed costs but low variable costs, the extra production and sales could provide a substantial contribution at little extra cost.

AEC Q.69. Write short notes on Factoring.

Solution / Hint :

Factoring

It is a new financial service that is presently being developed in India. It is not just a single service, rather a portfolio of complimentary financial services available to clients i.e., sellers. The sellers are free to avail of any combination of services offered by the factoring organizations according to their individual requirements.

Factoring involves provision of specialized services relating to credit investigation, sales ledger management, purchase and collection of debts, credit protection as well as provisions of

Working
Capital
Management
– Receivable
Management
– Factoring

finance against receivables and risk-bearing. In factoring, accounts receivables are generally sold to a financial institution (a subsidiary of commercial bank called "Factor") that charges commission and bears the credit risks associated with the accounts receivable purchased by it.

Its operation is very simple. Clients enter into an agreement with the "Factor" working out a factoring arrangement according to his requirements. The Factor then takes the responsibility of monitoring; follow - up, collection and risk – taking and provision of advance. The factor generally fixes up a limit customer-wise for the client (seller).

The seller selects various combinations of these functions by changing provision in the factoring agreements. The seller may utilize the factor to perform the credit checking and risk-taking functions but not the lending functions. Under this arrangement the factor checks and approves the invoices.

AEC Q.70.

Junio Limited is a small manufacturing company which is suffering cash flow problems. The company already utilizes its maximum overdraft facility. Junio Limited sells an average of Rs. 4,00,000 of goods per month at invoice value, and customers are allowed 40 days to pay from the date of invoice. Two possible solutions to the company's cash flow problems have been suggested. They are as follows:

- **Option 1:** Junio Limited would factor its trade debts. A factor has been found who would advance Junio Limited's 75 percent of the value of the invoices immediately on receipt of the invoices, at an interest rate of 10 percent per annum. The factor would also charge a service fee amounting to 2 percent of the total invoices. As a result of using the factor, Junio Limited would save administration costs estimated at Rs. 5,000 per month.
- **Option 2:** The company could offer a cash discount to customers for prompt payment. It has been suggested that customers could be offered a 2% discount for payments made within ten days of invoicing.

You are required to:

- (a) Discuss the issues that should be considered by management when a policy for credit control is formulated.
- (b) Identify the services that may be provided by factoring organizations.
- (c) Calculate the annual net cost (in Rs.) of the proposed factoring agreement.
- (d) Compute the annualized cost (in percentage terms) of offering a cash discount to customers.
- (e) Discuss the merits and demerits of the two proposals.

Solution / Hint :

Working
Capital
Management
– Receivable
Management
– Factoring

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(a) Policy for Credit Control for Junio Limited

When a policy is being formulated, management should consider the following issues:

- (i) The **average period of credit** to be given. Whether this should be longer than average to encourage sales or less than average, to speed up sales.
- (ii) **Policy for making decisions** on granting credit to individual customers:
 - How customers are to be **investigated for creditworthiness?** (e.g. by direct assessment by the company, or indirect assessment using credit references from banks, or other assessment agencies)
 - How the **amount and timing of credit** is to be decided? (e.g. whether credit is to be increased progressively).
- (iii) **Debt collection policies:** Whether to employ specific people for this work. Issue of debtors' statements, reminder letters, whether and when to make use of professional debt collectors and when to consider legal action.
- (iv) **Accounting reports** required: Aged debtors lists etc.
- (v) Policies on persuading debtors to pay promptly: Discount schemes.
- (vi) Whether to make use of **factoring services**.

For all the above, it will be necessary to consider the costs and benefits of the alternative course of action. This will include considerations on how credit is to be financed.

(b) A factor normally manages the debts owed to a client on the client's behalf.**Services Provided by Factoring Organisations**

- (i) **Administration** of the client's invoicing, sales accounting and debt collection service.
- (ii) **Credit protection** for the client's debts, whereby the factor takes over the risk of loss from bad debts and so 'insures' the client against such losses. The factor may purchase these debts 'without recourse' to the client, which means that if the client's debtors do not pay what they owe, the factor will not ask for the money back from the client.
- (iii) '**Factor finance**' may be provided, the factor advancing cash to the client against outstanding debts. The factor may advance up to 85 percent of approved debts from the date of invoice.
- (iv) A **confidentiality agreement** may be offered to conceal the existence of the arrangement from customers.

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(c) Calculation of Annual Cost of Factoring

It is assumed that the factor finance will not replace any existing credit lines, and therefore, the full interest cost of the agreement will be relevant when determining the cost of factoring.

Annual Sales = Rs. 4,00,000 × 12 = Rs. 48,00,000

Daily Sales = Rs. 48,00,000/365 = Rs. 13,151

The annual cost of factoring can now be found:

	Rs.
Interest (Rs. 13,151 × 40 days × 75% × 10%)	39,453
Service Fee (Rs. 48,00,000 × 2%)	<u>96,000</u>
Total Annual Charge	1,35,453
Less: Internal Cost Savings (Rs. 5,000 × 12)	<u>60,000</u>
Net Annual Cost	<u>75,453</u>

(d) Computation of Annualised Cost of Offering Cash Discount to Customers

$$\text{Cost} = \left(\frac{100}{100-d} \right)^{\frac{365}{t}} - 1$$

Where,

$$t = 40 - 10 = 30 \text{ days}$$

$$d = 2\%$$

$$\begin{aligned} \text{Cost} &= \left(\frac{100}{100-98} \right)^{\frac{365}{30}} - 1 \\ &= 27.9\% \end{aligned}$$

(e) Key Issues in the Discounting Option

- (i) The proposal is expensive. The company should be able to get cheaper overdraft finance than this, and longer-term debt should cost even less.
- (ii) The company may need to offer a discount in order to make its terms competitive with other firms in the industry.
- (i) The level of take-up among customers is uncertain, and will affect the cash flow position.
- (ii) Problems may arise when customers take both the discount and the full forty day credit period. This will increase administrative costs in seeking repayment.

Key Issues in the Factoring Option

- (i) The factor may be able to exercise better credit control than is possible in a small company.
- (ii) The amount of finance that will be received is much more certain than for the discounting option as 75 percent of the value of the invoices will be provided immediately.
- (iii) The relationship with the customers may deteriorate partly due to the reduction in the level of contract with the company, and partly due to the historical view of the factor as the lender of last resort.

Thus, the final decision must take into consideration all the above issues. However, the most important points to consider are the ability of each proposal to meet the financing requirements, and the relative costs of the different sources of finance.

AEC Q.71.

Konika Electronics has total sales of Rs. 3.2 crores and its average collection period is 90 days. The past experience indicates that bad-debt losses are 1.5% on sales. The expenditure incurred by the company in administering its receivable collection efforts are Rs. 5,00,000. A factor is prepared to buy the company's receivables by charging 2% commission. The factor will pay advance on receivables to Konika Electronics at an interest rate of 18% p.a. after withholding 10% as reserve. You are required to compute the effective cost of factoring to Konika Electronics.

Solution / Hint :

Working
Capital
Management–
Receivable
Management
– Factoring

Computation of Effective Cost of Factoring to Konika Electronics

Average level of Receivables	$= 3,20,00,000 \times 90/360$	80,00,000
Factoring commission	$= 80,00,000 \times 2/100$	1,60,000
Factoring reserve	$= 80,00,000 \times 10/100$	8,00,000
Amount available for advance	$= \text{Rs. } 80,00,000 - (1,60,000 + 8,00,000)$	70,40,000
Factor will deduct his interest @ 18% :-		
Interest =	$\frac{\text{Rs. } 70,40,000 \times 18 \times 90}{100 \times 360}$	Rs. 3,16,800

Advance to be paid = Rs. 70,40,000 – Rs. 3,16,800 = Rs. 67,23,200

Annual Cost of Factoring to Konika Electronics:

	Rs.
Factoring commission (Rs. 1,60,000 × 360/90)	6,40,000
Interest charges (Rs. 3,16,800 × 360/90)	12,67,200
Total	19,07,200

Konika Electronics's Savings on taking Factoring Service:

	Rs.
Cost of credit administration saved	5,00,000
Cost of Bad Debts (Rs. 3,20,00,000 × 1.5/100) avoided	4,80,000
Total	9,80,000
Net Cost to Konika Electronics (Rs. 19,07,200 – Rs. 9,80,000)	9,27,200

Effective rate of interest to Konika = $\frac{\text{Rs. } 9,27,200 \times 100}{67,23,200}$ 13.79%*

*Note: The number of days in a year has been assumed to be 360 days.

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308 KEY TERMS IN**FINANCIAL MANAGEMENT**

SN	Term	Explanation	Sub.	CH	Related Topic
1.	ABC Analysis	The technique suggested for inventory control can equally be applicable to management of debtors balances by classifying the debtors balances into 'A class', 'B class' and 'C class'.	FM	<u>CH</u> <u>41</u>	RECEIVABLES MANAGEMENT
2.	Absolute Liquid Assets	The absolute liquid assets include cash in hand, cash at bank and short-term or temporary investments.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
3.	Accounting Rate of Return	It is calculated as a percentage of the average annual profits after tax to average investment in the project, and the project with higher rate of return will be selected. It is also known as 'return on investment' or 'return on capital employed'.	FM	<u>CH</u> <u>36</u>	Capital budgeting techniques
4.	Accounting Ratio	The accounting ratios are used to describe significant relationships which exist between figures shown in the financial statements. A ratio is a quotient of two numbers and the relation is expressed between two accounting figures.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
5.	Ageing Schedule	In ageing schedule, the total debtors balances are classified according to their age of outstanding. The schedule helps in analyzing the risk of default.	FM	<u>CH</u> <u>41</u>	RECEIVABLES MANAGEMENT
6.	Agency Theory	The agency theory models a situation in which a principal (shareholders) delegate decision making authority to an agent (managers) who receives a reward in return for performing some activity of principal. The shareholders can maximize their wealth by giving appropriate incentives to the managers and by proper monitoring of the managers. The management is considered to be an agent of shareholders, and if it does not act in the best interests of the shareholders, it leads to agency costs for the firm resulting in a fall of market price.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
7.	Aggressive Strategy	Under this approach, current assets are maintained just to meet the current liabilities without keeping cushion for variations in working capital needs.	FM	<u>CH</u> <u>38</u>	Working capital planning
8.	American Depository Receipts	Issue of securities by an Indian company in U.S. through appointment of bank as depository is called 'American Depository Receipts (ADRs)'. The physical shares remain in India with a domestic depository bank who shall act as agent of overseas depository bank. The foreign investors can sell these ADRs in foreign stock exchanges or back to the depository to get delivery of the underlying rupee denominated shares, which can be sold in the Indian stock markets.	FM	<u>CH</u> <u>35</u>	MEDIUM AND LONG
9.	Amortization	It is a gradual and systematic writing-off of an asset or repayment of liability over a period.	FM	<u>CH</u> <u>27</u>	TIME VALUE OF MONEY

SN	Term	Explanation	Sub.	CH	Related Topic
10.	Annuity	It is the amount per period of cash inflow or cash outflow for a specified period of time. For example, depositing Rs. 700 p.m. in bank recurring deposit for a period of 5 years to get Rs. 50,000 at the end of 5th year.	FM	<u>CH</u> <u>27</u>	TIME VALUE OF MONEY
11.	Application of Fund	An increase in an asset or decrease in a liability over the year will result in an application of fund.	FM	<u>CH</u> <u>29</u>	FUNDS FLOW ANALYSIS
12.	Asset Management Ratios	These ratios measure how effectively the firm employs its resources, which involve comparison between the level of sales and investment in various accounts like inventories, debtors, fixed assets etc.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
13.	Backward Integration	It is the creation of facilities of production of raw materials and components required for current production.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL
14.	Balance Sheet Approach	The working capital has its significance in two perspectives. These are gross working capital and net working capital.	FM	<u>CH</u> <u>38</u>	Working capital planning
15.	Balancing Project	The balancing equipment is installed to remove the bottlenecks and to increase the capacity utilization of total plant.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL
16.	Bank Guarantee	It is a form of facility extended by the bank, on behalf of its customer, in favour of third parties who will be the beneficiaries of the guarantees. The banker's liability arises only if his customer fails to pay the beneficiary of the guarantee. The bank guarantee limits are known as 'non-borrowing limits' or 'non-fund limits'.	FM	<u>CH</u> <u>39</u>	Working capital FINANCING
17.	Bank Overdraft	It is a short-term borrowing facility made available by the bank to the companies in case of urgent need of funds, with a right to call them back at short-notice.	FM	<u>CH</u> <u>39</u>	Working capital FINANCING
18.	Baumol's EOQ Model	It suggests that cash to be managed in the same manner like any other items of inventory and finds an optimum cash balance by combining the carrying costs and transaction costs to the minimum. The carrying costs refer to cost of holding cash <i>i.e.</i> interest foregone on marketable securities. The transaction costs refer to cost involved in getting the marketable securities converted into cash and <i>vice versa</i> .	FM	<u>CH</u> <u>40</u>	CASH ASSETS AND TREASURY MANAGEMENT
19.	Bills Acceptance	Under this finance arrangement, a company draws a bill on the bank. The bank accepts the bill thereby promising to payout the amount of the bill at a specified future date. The bill bearing the bank's name can be sold in the money market at a discount than the amount for which the bill is drawn.	FM	<u>CH</u> <u>39</u>	Working capital FINANCING
20.	Bills Discounting	It is a source of working capital finance in which bills arising out of trade transactions are sold to a financial intermediary at a discount. The banker will generally earmarks the discounting bill limit.	FM	<u>CH</u> <u>39</u>	Working capital FINANCING
21.	Bills Payable	When an instrument is given, notably negotiable instrument, in	FM	<u>CH</u>	Working capital

SN	Term	Explanation	Sub.	CH	Related Topic
		acknowledgment of the debt the same appears in the balance sheet of the buyer as 'bills payable' or 'notes payable'.		<u>39</u>	FINANCING
22.	Book Building	In the book building process, the issuing company will ascertain the demand for the securities and the price at which such securities and ultimately determines the quantum of shares to be issued and the issue price. The issue price is not fixed in advance.	FM	<u>CH</u> <u>35</u>	MEDIUM AND LONG
23.	Book Value	It indicates the net worth per equity share and it reflects the past earnings and distribution policy of the company.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
24.	Bridge Loans	The bridge loans are raised from banks and financial institutions when the source and timing of the funds to be raised is known with certainty, to fill the time gap in accessing the funds to speed up the project implementation.	FM	<u>CH</u> <u>35</u>	MEDIUM AND LONG
25.	Build, Operate and Transfer (B.O.T.)	Under this the entrepreneur builds the project on behalf of the government from his own resources and operates it for certain period and then transfer the project to the government.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL
26.	Build, Own and Operate (B.O.O.)	Under this, the entrepreneur builds the project from his own resources and operates the project after its commercial launching.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL
27.	Business Risk	It arises due to higher amount of fixed overheads in cost structure.	FM	<u>CH</u> <u>33</u>	OPERATING AND financial LEVERAGE
28.	Business Taxation	The tax payments represent a cash outflow from the business and these cash flows are critical part of the financial planning and decision making in a business firm. The taxation implications are dominant influences on the final investment decisions also.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
29.	Capital Budgeting	It is a long-term planning exercise in selection of projects which generates cash flows over a number of years in future.	FM	<u>CH</u> <u>36</u>	Capital budgeting techniques
30.	Capital Budgeting	It is an art of finding assets that are worth more than they cost to achieve the goals of optimizing wealth of owners.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL
31.	Capital Employed	It includes share capital, reserves and surplus, secured loans, unsecured loans less investments made outside business, preliminary expenses, profit and loss account debit balance and capital work-in-progress.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
32.	Capital Investment Decision	It involves a huge outlay and it should be appraised and made carefully with a view to maximize the wealth of the concern.	FM	<u>CH</u> <u>36</u>	Capital budgeting techniques
33.	Capital Investment Decisions	It involves huge amounts of money and having a long-span of time for cash inflow and carry some degree of risk and uncertainty with the cash flows.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL
34.	Capital Investment	It involves search for investment opportunities, screening and evaluation of alternatives and selection of right alternative for	FM	<u>CH</u>	PROJECT PLANNING AND

SN	Term	Explanation	Sub.	CH	Related Topic
	Process	implementation.		<u>34</u>	APPRAISAL
35.	Capital Market	The capital market refers to the market for long-term securities, such as corporate stocks and bonds, for financing long-term assets.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
36.	Capital Rationing	It refers to the selection of the investment proposals in a situation of constraint on availability of funds, to maximize the wealth by maximizing the NPV of its projects selected for implementation.	FM	<u>CH</u> <u>36</u>	Capital budgeting techniques
37.	Capital Structure	The capital structure of a company implies debt and equity components raised from long-term sources.	FM	<u>CH</u> <u>32</u>	CAPITAL structure AND VALUE OF FIRM
38.	Capitalizing Rate	It is the rate applied in the reverse process of discriminating the present value of future cash flows.	FM	<u>CH</u> <u>27</u>	TIME VALUE OF MONEY
39.	CAPM Method	Cost of equity capital consists of risk free return <i>plus</i> premium to compensate for business and financial risks.	FM	<u>CH</u> <u>31</u>	COST OF CAPITAL AND WACC
40.	Cash	It comprises of cash in hand and demand deposit with banks.	FM	<u>CH</u> <u>30</u>	CASH FLOW ANALYSIS
41.	Cash Assets	The cash assets include holding of funds in most liquid form like cash in hand, cash at bank, marketable securities <i>etc.</i>	FM	<u>CH</u> <u>40</u>	CASH ASSETS AND TREASURY MANAGEMENT
42.	Cash Assets Management	The basic objective of cash assets management is to optimize liquidity and profitability. Cash is a non-earning asset. Idle and temporary cash surplus to be suitably invested in liquid, short-term and long-term investments as per the firm's policy with a view to increase its profitability.	FM	<u>CH</u> <u>40</u>	CASH ASSETS AND TREASURY MANAGEMENT
43.	Cash Budget	It incorporates the cash inflow and cash outflow, both revenue and capital items, to ascertain the cash flow position and to meet the situations of cash deficits.	FM	<u>CH</u> <u>40</u>	CASH ASSETS AND TREASURY MANAGEMENT
44.	Cash Budget	The cash budget is prepared for the forthcoming period as a planning exercise. It starts with the opening balance of cash in hand and at bank. It incorporates all expected cash receipts and estimated payments and ascertain the excess or shortage of the cash for the period.	FM	<u>CH</u> <u>30</u>	CASH FLOW ANALYSIS
45.	Cash Conversion Cycle	It refers to the exclusion of depreciation from expenses in the operating cycle.	FM	<u>CH</u> <u>38</u>	Working capital planning
46.	Cash Cost Working Capital	In estimation of working capital under cash cost basis, depreciation is excluded from cost of goods sold; depreciation and profit margin are excluded from selling price for ascertaining the investment in debtors balance.	FM	<u>CH</u> <u>38</u>	Working capital planning
47.	Cash Credit	The banker will allow certain amount of credit facility to its customer on continuous basis and the customer is not allowed	FM	<u>CH</u> <u>39</u>	Working capital FINANCING

SN	Term	Explanation	Sub.	CH	Related Topic
		to exceed the limit sanctioned by the bank.			
48.	Cash Deficits	The cash shortages can result in making of suboptimal investment decisions and suboptimal financing decisions.	FM	<u>CH</u> <u>40</u>	CASH ASSETS AND TREASURY MANAGEMENT
49.	Cash Discount	It is a discount or reduction in debt allowed by creditors to their debtors to encourage them to pay their dues before the expiry of credit period.	FM	<u>CH</u> <u>39</u>	Working capital FINANCING
50.	Cash Discounts	These are offered by the seller to the customer to encourage early payment. These are also called as 'settlement discounts'. A firm purchases goods has to make an analysis of accepting either cash discount or credit term.	FM	<u>CH</u> <u>41</u>	RECEIVABLES MANAGEMENT
51.	Cash EPS	It is calculated by dividing the net profit before depreciation with number of equity shares.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
52.	Cash Equivalents	These are short-term, highly liquid investments that are readily convertible into known amounts of cash and which are subject to an insignificant risk of changes in value. E.g. commercial paper, treasury bills.	FM	<u>CH</u> <u>30</u>	CASH FLOW ANALYSIS
53.	Cash flow Statement	It provides information about the cash receipts and cash payments of an enterprise for a given period by providing the information about changes in cash and cash equivalents.	FM	<u>CH</u> <u>30</u>	CASH FLOW ANALYSIS
54.	Cash flows	It means the movement of cash into and out of the organization and the difference is either net cash inflow or net cash outflow.	FM	<u>CH</u> <u>30</u>	CASH FLOW ANALYSIS
55.	Cash Profit	Net profit + Depreciation	FM	<u>CH</u> <u>28</u>	Ratio Analysis
56.	Cash Proportion Ratio	This ratio will assist in the cash management by fixing the level of cash balance in proportion to the level of current assets.	FM	<u>CH</u> <u>40</u>	CASH ASSETS AND TREASURY MANAGEMENT
57.	Cash Turnover	In determining the amount of cash that the company may need to carry cash is to examine the cash balance in relation to sales of the period.	FM	<u>CH</u> <u>40</u>	CASH ASSETS AND TREASURY MANAGEMENT
58.	Centralized Treasury Management	Under this, the treasury department is setup in the head office which will look after the management of funds of multi-locational centers of the organization.	FM	<u>CH</u> <u>40</u>	CASH ASSETS AND TREASURY MANAGEMENT
59.	Changes in Working Capital Position	The excess of funds generated over funds outgo from noncurrent assets and noncurrent liabilities will lead to increase or decrease in working capital and it is presented in a statement form.	FM	<u>CH</u> <u>29</u>	FUNDS FLOW ANALYSIS
60.	Collection Expenses	A firm has to incur some routine costs like sending reminders, telephone expenses, expenses incurred for personal visits to customers' places, commission and fees payable to collection agencies, legal expenses etc.	FM	<u>CH</u> <u>41</u>	RECEIVABLES MANAGEMENT

SN	Term	Explanation	Sub.	CH	Related Topic
61.	Collection Float	It refers to the time between the payment made by the debtors or customers and the time when funds available for use in the company's bank account.	FM	<u>CH</u> <u>40</u>	CASH ASSETS AND TREASURY MANAGEMENT
62.	Commercial Paper	It is a usance promissory note, negotiable by endorsement and delivery. The commercial paper are issued by the corporate, as a form of working capital finance, who obtains credit rating and working capital limits from the commercial banks. The issuing company's net worth should not be less than Rs. 4 crores. CP is issued at a discount and matured at face value.	FM	<u>CH</u> <u>39</u>	Working capital FINANCING
63.	Compound Interest	In computation of compound interest, interest of one period is added to the principal for the next period. The compounding is done monthly, quarterly, half-yearly, annually etc.	FM	<u>CH</u> <u>27</u>	TIME VALUE OF MONEY
64.	Compounding Rate	It is the rate used in project evaluation to determine the present value of past investment or cash flows.	FM	<u>CH</u> <u>27</u>	TIME VALUE OF MONEY
65.	Conflicting Ranking	When two investment proposals are mutually exclusive, NPV and IRR methods will give a conflicting ranking. IRR do not use the concept of desired rate of return, whereas it provides rate of return which is indicative of the profitability of investment proposal. Under NPV method, all projects with a positive NPV, when discounted at firm's cost of capital, will be chosen.	FM	<u>CH</u> <u>36</u>	Capital budgeting techniques
66.	Conservative Strategy	It suggests not to take any risk in working capital management and to carry a high level of current assets in relation to sales.	FM	<u>CH</u> <u>38</u>	Working capital planning
67.	Consumer Credit	It is generally offered to the end-consumer.	FM	<u>CH</u> <u>41</u>	RECEIVABLES MANAGEMENT
68.	Convertible Securities	The convertible debentures or convertible preference shares are exchangeable into ordinary shares either at the option of the holder or compulsory conversion under specified terms and conditions.	FM	<u>CH</u> <u>35</u>	MEDIUM AND LONG
69.	Core Current Assets	The core current assets are those required by the firm to ensure the continuity of operations which represents the minimum levels of various items of current assets. This minimum level of current assets is to be financed by long-term sources and any fluctuations over the minimum level of current assets will be financed by the short-term financing.	FM	<u>CH</u> <u>38</u>	Working capital planning
70.	Corporate Financing	The corporate financing means identification of funds requirement of a firm and raising of funds from various sources to meet the funds requirement of the firm.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
71.	Cost of Capital	The cost of capital is the rate of return payable to various suppliers of funds like equity share capital, preference share capital, debentures, term loans etc. The company should earn in excess of cost of capital to increase its market value.	FM	<u>CH</u> <u>31</u>	COST OF CAPITAL AND WACC
72.	Cost of Credit	The extension of credit to customers involves the carrying costs, defaulting costs, administration costs. Costs of denying credit	FM	<u>CH</u> <u>41</u>	RECEIVABLES MANAGEMENT

SN	Term	Explanation	Sub.	CH	Related Topic
		leads to loss of sales.			
73.	Cost of Debt	The cost of debt funds like debentures, term loans, is the interest payable on it <i>less</i> of tax shield.	FM	<u>CH</u> <u>31</u>	COST OF CAPITAL AND WACC
74.	Cost of Equity	It is the minimum rate of return that a company must earn on the equity share capital financed portion of a project so that market price of the shares remains unchanged.	FM	<u>CH</u> <u>31</u>	COST OF CAPITAL AND WACC
75.	Cost of Preference Capital	It is ascertained by dividing the preference dividend with net proceeds from issue of preference shares after deducting the floatation costs. The cost of preference capital can also be ascertained by dividing the preference dividend with average amount of redeemable and sale value of preference shares.	FM	<u>CH</u> <u>31</u>	COST OF CAPITAL AND WACC
76.	Cost of Project	It is the aggregate of costs estimated to be incurred on various heads for bringing the project into existence like land and site development, factory building, plant and machinery, miscellaneous fixed assets, preliminary and preoperative expenses, technical knowhow fees, contingencies and escalation, margin money for working capital.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL
77.	Cost of Retained Earnings	It may be considered equivalent to the return foregone by the equity shareholders, and it is the opportunity cost of funds not available for reinvestment by the individual shareholders.	FM	<u>CH</u> <u>31</u>	COST OF CAPITAL AND WACC
78.	Costing	It relates to the ascertainment of cost of capital from different sources like equity capital, preference capital, debentures, long-term loans <i>etc.</i>	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
79.	Credit Period	It is the period for which trade credit is made available to the company by its suppliers.	FM	<u>CH</u> <u>39</u>	Working capital FINANCING
80.	Credit Policy	A firm is required to establish its credit policy for efficient management of receivables. A credit policy specifies the credit term, acceptable credit risk, discount policy, assessment of creditworthiness, action against slow-payers.	FM	<u>CH</u> <u>41</u>	RECEIVABLES MANAGEMENT
81.	Credit Risk	The credit risk means that there is a possibility that the debt will go bad.	FM	<u>CH</u> <u>41</u>	RECEIVABLES MANAGEMENT
82.	Credit Standards	These are the guiding principles set by the credit control department to screen and select the customers, to whom credit limit can be offered.	FM	<u>CH</u> <u>41</u>	RECEIVABLES MANAGEMENT
83.	Credit Term	It is the time period allowed to the customer in payment against credit sales.	FM	<u>CH</u> <u>41</u>	RECEIVABLES MANAGEMENT
84.	Creditors Payment Period	It indicates the average time taken by a firm to pay for goods and services purchased.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
85.	Creditworthiness	The basic consideration in granting credit is the evaluation of risk that the debt will go bad. The information about the status and soundness of the party is assessed. It is termed as	FM	<u>CH</u> <u>41</u>	RECEIVABLES MANAGEMENT

SN	Term	Explanation	Sub.	CH	Related Topic
		'creditworthiness' of the customer.			
86.	Current Assets	The current assets are those assets which can be converted into cash within a year. For example, sundry debtors, stock, short-term investments.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
87.	Current Assets	The current assets are those assets which are convertible into cash within a period of one year and are required to meet the day to day operations of the business.	FM	<u>CH</u> <u>38</u>	Working capital planning
88.	Current Liabilities	The current liabilities and provisions that are payable within a year. For example, creditors, bills payable.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
89.	Current Liabilities	The current liabilities are those claims of outsiders which are expected to mature for payment within an accounting year.	FM	<u>CH</u> <u>38</u>	Working capital planning
90.	Debenture	A debenture is an acknowledgment of debt for the repayment of principal sum at a specified future date and for the payment of interest at a fixed rate of interest until the principal amount is repaid.	FM	<u>CH</u> <u>35</u>	MEDIUM AND LONG
91.	Debt	The long-term liabilities raised for business like debentures, bonds, term loans etc. Preference share capital is excluded from debt.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
92.	Debt Securitization	In this case, debts are transferred by the originator to the special purpose vehicle (SPV) which acts as the trustee. The SPV issues asset backed tradable securities to investors.	FM	<u>CH</u> <u>39</u>	Working capital FINANCING
93.	Debt Service Coverage Ratio	It indicates the ability of the borrower to service the loan in regard to timely payment of interest and repayment of loan installment. A ratio of 2 is considered satisfactory by the financial institutions.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL
94.	Debt-Equity Ratio Analysis	The debt-equity ratio is a commonly used determinant of capital structure. There is an optimal capital structure where the marginal tax benefit is equal to the marginal cost of anticipated financial distress.	FM	<u>CH</u> <u>32</u>	CAPITAL structure AND VALUE OF FIRM
95.	Debtors Collection Period	It indicates the time taken to collect amounts from debtors.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
96.	Debtors Turnover	It indicates the amount of resources tied up in debtors and it indicates the efficiency of the firm in converting debtors into cash.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
97.	Decision Tree	The decision tree technique can be used in analyzing the cost-benefit in granting credit to a customer. The payment of debt or turning out to be bad debt are the future uncertain events for which probabilities are assigned, based on the chances of outcome estimated.	FM	<u>CH</u> <u>41</u>	RECEIVABLES MANAGEMENT
98.	Defensive Interval	It is measure of liquid assets against projected daily cash requirement.	FM	<u>CH</u> <u>28</u>	Ratio Analysis

SN	Term	Explanation	Sub.	CH	Related Topic
99.	Deferred Annuity	It is an annuity where the first payment is delayed beyond one year.	FM	<u>CH</u> <u>27</u>	TIME VALUE OF MONEY
100.	Degree of Financial Leverage	It measures the responsiveness of EPS to the changes in EBIT.	FM	<u>CH</u> <u>33</u>	OPERATING AND financial LEVERAGE
101.	Degree of Operating Leverage	It measures the responsiveness of EBIT to change in levels of output and indicates the response in profits with alteration of output and sales. Where there is a change of 1% in sales produces a more than 1% change in EBIT, there is a presence of operating leverage.	FM	<u>CH</u> <u>33</u>	OPERATING AND financial LEVERAGE
102.	Degree of Total Leverage	It measures the sensitivity of EPS to change in quantity produced and sold.	FM	<u>CH</u> <u>33</u>	OPERATING AND financial LEVERAGE
103.	Depreciation Allowance	It is the measure of wearing out, consumption or other loss of value of a fixed asset. It may also arise from use of asset, affluxion of time, obsolescence through technology and market changes etc. Depreciation will also serve as a tax shield.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
104.	Derivative Market	The individuals and firms who wish to avoid or reduce risk can deal with others who are willing to accept the risk for a price. The common place where such transactions take place is called ' <i>derivatives market</i> '.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
105.	Detailed Project Report	It contain the details about the plan of action, details about technical, financial, marketing, management and social aspects. The detailed project report will be submitted to the banks and financial institutions for financial support both for long-term assistance and working capital requirements.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL
106.	Direct Method	Under this method, cash receipts from operating revenues and cash payments for operating expenses are rearranged so as to get cash flow from operating activities.	FM	<u>CH</u> <u>30</u>	CASH FLOW ANALYSIS
107.	Discounted Cashflow Techniques	Under discounted cash flow techniques, the future net cash flows generated by a capital project are discounted to ascertain their present values.	FM	<u>CH</u> <u>36</u>	Capital budgeting techniques
108.	Discounted Payback Period	It is ascertained by accumulating the present values of net cash inflows year after year, till the original cash outlay is recovered. The discounting of cash flows is done as in case of NPV method.	FM	<u>CH</u> <u>36</u>	Capital budgeting techniques
109.	Discounting	The process of converting cash flows into their present equivalents is known as 'discounting'.	FM	<u>CH</u> <u>36</u>	Capital budgeting techniques
110.	Discounting	The value of future cash flows are assessed to the present date by inverting the compounding process to give present value of future cash flows. The process of ascertainment of present values is called 'discounting'.	FM	<u>CH</u> <u>27</u>	TIME VALUE OF MONEY
111.	Diversification Project	It is an investment decision to setup an entirely new project which is not connected with the existing line of business with a view to increase asset base, increase in turnover and profits,	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND

SN	Term	Explanation	Sub.	CH	Related Topic
		reduced level of business risk etc.			APPRAISAL
112.	Dividend	It indicates the number of times the dividends are covered by the profits available for distribution.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
113.	Dividend Decisions	The dividend decisions concerned with the determination of quantum of profits to be distributed to the owners and the frequency of such payments and the amounts to be retained by the firm.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
114.	Dividend Growth Method	An allowance for future growth in dividend is added to the current dividend yield in computation of cost of equity capital.	FM	<u>CH</u> <u>31</u>	COST OF CAPITAL AND WACC
115.	Dividend Payout	It indicates the extent of net profits distributed to the shareholders as dividend.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
116.	Dividend Yield	It reflects the percentage of yield an investor receives on his current market price of a share.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
117.	Dividend Yield Method	The cost of equity capital is defined as the discount rate that equates the present value of all expected future dividends per share with the current market price of share.	FM	<u>CH</u> <u>31</u>	COST OF CAPITAL AND WACC
118.	DSCR	It indicates the ability of the borrower to service the loan in regard to timely payment of interest and repayment of loan installment.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
119.	Du Pont Chart	It is a chart of financial ratios which analyses the net profit margin in terms of assets turnover. It indicates that the return on investment is ascertained as a product of net profit margin ratio and investment turnover ratio.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
120.	EBIT-EPS Analysis	It is an important tool in capital structure. The optimum capital structure can be determined by taking into consideration the financial break-even and financial indifference points.	FM	<u>CH</u> <u>32</u>	CAPITAL structure AND VALUE OF FIRM
121.	Efficiency Ratios	The efficiency in working capital management is measured by computing the ratios like working capital to sales ratio, inventory turnover ratio and current assets turnover ratio.	FM	<u>CH</u> <u>38</u>	Working capital planning
122.	Electronic Cash Management	It refers to the networked cash management systems to ensure faster and reliable mobility of funds by adopting latest information technologies.	FM	<u>CH</u> <u>40</u>	CASH ASSETS AND TREASURY MANAGEMENT
123.	Engineering, Procurement and Construction (E.P.C.)	In this, the contractor takes complete responsibility to construct, erect, commission and supply the plant and keeps it ready to operate by the owner.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL
124.	EPS	It is a measure of net profit earned per share. A higher EPS means better capital productivity and economic performance of the company.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
125.	Equity	The equity represents the shareholders funds which include equity share capital, preference share capital, reserves and	FM	<u>CH</u>	Ratio Analysis

SN	Term	Explanation	Sub.	CH	Related Topic
		surplus /less accumulated losses.		<u>28</u>	
126.	Equity Shares	An equity interest in a company may be said to represent a share of the company's assets and a share of the profits earned on those assets after other claims have been met. The equity shareholders have a right to vote on every resolution placed in the general meeting and the voting rights shall be in proportion to the paid-up capital.	FM	<u>CH</u> <u>35</u>	MEDIUM AND LONG
127.	Euro issue	It denotes that the issue is made abroad through instruments denominated in foreign currency and the securities issued are listed on overseas stock exchange.	FM	<u>CH</u> <u>35</u>	MEDIUM AND LONG
128.	Expansion Project	The existing plant capacity can be expanded with a view to produce a large volume of output than the current level.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL
129.	External Commercial Borrowings	ECBs are the borrowings made by corporate and financial institutions from international markets for a maturity period of over 180 days and with a relative lower financing cost.	FM	<u>CH</u> <u>35</u>	MEDIUM AND LONG
130.	Factoring	It is a method of financing working capital whereby the company sells its trade debts at a discount to a financial institution called 'factor'. The factor makes immediate payment upto 80% of the invoice value and the balance 20% amount is paid on due date, after deducting its commercial charges.	FM	<u>CH</u> <u>39</u>	Working capital FINANCING
131.	Feasibility Study	Before the finalization of a capital investment decision, a feasibility study will be conducted to confirm about the techno-commercial feasibility. The feasibility study report contains brief details which are substantial in making the capital investment decision.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL
132.	Finance Decisions	The finance decisions assert that the mix of debt and equity chosen to finance investments should maximize the value of investments made.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
133.	Financial and NEDC Risks Trade-off	The financial risk arises due to use of debt in capital structure. NEDC risks arise out of no employment of debt capital in the capital structure. In determining the optimum level of debt-equity combination, the Finance Manager has to balance the financial and NEDC risks by minimizing the total risk/costs.	FM	<u>CH</u> <u>32</u>	CAPITAL structure AND VALUE OF FIRM
134.	Financial Break-even Point	It is the point where fixed interest charges are just equal to EBIT. It denotes the level of EBIT for which firm's EPS is just equal to zero.	FM	<u>CH</u> <u>32</u>	CAPITAL structure AND VALUE OF FIRM
135.	Financial Cashflows	The financial cash flows arise from variations in long-term capital. It include cash from issue of shares and debentures, repayment of term loans etc.	FM	<u>CH</u> <u>40</u>	CASH ASSETS AND TREASURY MANAGEMENT
136.	Financial Closure	After the necessary government clearances obtained and after entering into loan agreements, the project in all aspects ready for implementation and this state of readiness for monetary support of project is called 'financial closure'.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL

SN	Term	Explanation	Sub.	CH	Related Topic
137.	Financial Dis-intermediation	In this, the savers take their funds out of financial institutions and buy the primary securities themselves.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
138.	Financial Distress and Agency Costs	When the leverage of the firm is extremely high, it is likely to run into the costs of financial distress and bankrupting, and agency costs.	FM	<u>CH</u> <u>32</u>	CAPITAL structure AND VALUE OF FIRM
139.	Financial Indifference Point	It is the situation when two alternative financial plans to produce the level of EBIT where EPS is same. The EBIT at indifference point explains that the EPS for two methods of financing is equal.	FM	<u>CH</u> <u>32</u>	CAPITAL structure AND VALUE OF FIRM
140.	Financial Intermediation	It is a sort of indirect financing in which the savers deposit funds with financial institutions and banks, who in turn lend to the ultimate borrowers.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
141.	Financial Lease	In a financial lease, the lessor intends to recover his capital outlay <i>plus</i> a required rate of return on funds used in financing the asset. Financial lease is a non-cancellable contractual commitment on the part of lessee, who acquires most of the economic values associated with the outright ownership of the asset at the end of the lease period.	FM	<u>CH</u> <u>37</u>	lease or buy decisions
142.	Financial Leverage	It refers to the use of debt component in capital structure and the effect of payment of fixed interest on firm's profitability. It is expressed as EBIT/EBT. A high financial leverage indicates a higher percentage of debt in the capital structure. It conveys interest burden on the firm.	FM	<u>CH</u> <u>33</u>	OPERATING AND financial LEVERAGE
143.	Financial Management	It studies about the process of procuring and judicious use of financial resources with a view to maximizing the value of the firm there by the value of the owners.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
144.	Financial Market	The financial markets are the transmission mechanism between saver-lenders and borrower-spenders. Ultimate lenders supply funds to ultimate borrowers either directly by buying primary securities or indirectly by buying liabilities of specialized financial institutions, which in turn buy the primary securities.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
145.	Financial Risk	It arises due to high charge of interest due to excessive use of debt component.	FM	<u>CH</u> <u>33</u>	OPERATING AND financial LEVERAGE
146.	Financial Sector Reforms	The financial sector reforms aim at promoting a diversified, efficient and competitive financial sector with ultimate objective of improving the allocative efficiency of available resources, increasing the return on investment and promoting accelerated growth of real sectors of economy.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
147.	Financial Structure	It consists of equity, long-term debt and also current liabilities.	FM	<u>CH</u> <u>32</u>	CAPITAL structure AND VALUE OF FIRM
148.	Financing	These activities result in changes in the size and composition of	FM	<u>CH</u>	CASH FLOW

SN	Term	Explanation	Sub.	CH	Related Topic
	Activities	the owner's capital (including preference share capital) and borrowings of the enterprise.		<u>30</u>	ANALYSIS
149.	Fixed Interest Bearing Funds	The fixed interest bearing funds include debentures, long-term loans and preference share capital.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
150.	Float	It refers to the time difference between the payment is initiated and funds available in the bank account in spendable form.	FM	<u>CH</u> <u>40</u>	CASH ASSETS AND TREASURY MANAGEMENT
151.	Floating Charge	With creation of floating charge on current assets, the borrowing firm gives the lender a general claim against the current assets which are floating. The lender's rights on current assets will be crystallized only when the borrower defaults in payment of his dues.	FM	<u>CH</u> <u>39</u>	Working capital FINANCING
152.	Floating Debt Rate	In floating debt rate, a certain percentage of interest will be of fixed nature. Over and above the fixed rate of interest, the lender will charge extra rate of interest depending on the market conditions.	FM	<u>CH</u> <u>31</u>	COST OF CAPITAL AND WACC
153.	Flow	The flow of fund refers to transfer of economic values from one asset equity to another.	FM	<u>CH</u> <u>29</u>	FUNDS FLOW ANALYSIS
154.	Foreign Currency Convertible Bonds	FCCBs are issued in accordance with the scheme and subscribed by a nonresident in foreign currency and convertible into ordinary shares of the issuing company in the manner stated in offer document. Till conversion, the company has to pay interest on FCCBs in foreign currency and if conversion option is not exercised, the redemption has to be done in foreign currency. The bonds are unsecured in nature.	FM	<u>CH</u> <u>35</u>	MEDIUM AND LONG
155.	Foreign Exchange Market	In foreign exchange market, the currencies of different countries are bought and sold. The foreign exchange market provides means to hedge the risk arising from foreign exchange fluctuations and it is a decentralized worldwide market, the participants in the market include central banks, commercial banks, brokers, corporations and individuals.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
156.	Forward Integration	It is the creation of facilities for manufacturing products for which the current products of the organization serve as inputs.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL
157.	Fund	The fund refers to all financial resources of the company.	FM	<u>CH</u> <u>29</u>	FUNDS FLOW ANALYSIS
158.	Funds Flow Analysis	It refers to movement of funds which in turn changes in working capital position of the organization and highlights inefficiency in funds management.	FM	<u>CH</u> <u>29</u>	FUNDS FLOW ANALYSIS
159.	Funds Flow Statement	It highlights the amounts raised from various sources of finance during a period and then explains how that finance has been used in the business.	FM	<u>CH</u> <u>29</u>	FUNDS FLOW ANALYSIS
160.	Future Value of Ordinary	In this, the payments or receipts occur at the end of each period and the sum of future value of all annuity payments or receipts	FM	<u>CH</u>	TIME VALUE OF

SN	Term	Explanation	Sub.	CH	Related Topic
	Annuity	are ascertained at the end of certain period.		<u>27</u>	MONEY
161.	Gearing	It refers to the amount of debt finance a company uses relative to equity finance. A company with high level of debt component in its capital structure is said to be 'highly geared' and <i>vice versa</i> .	FM	<u>CH</u> <u>33</u>	OPERATING AND financial LEVERAGE
162.	Gearing	It indicates the relationship between loan funds and net worth of the company. If the proportion of debt to equity is low, a company is said to be low-g geared and <i>vice versa</i> .	FM	<u>CH</u> <u>28</u>	Ratio Analysis
163.	Global Depository Receipt	GDR is an instrument which allows Indian Corporate, Banks, Non-banking financial companies <i>etc.</i> to raise funds through equity issues abroad to augment their resources for domestic operations.	FM	<u>CH</u> <u>35</u>	MEDIUM AND LONG
164.	Gross Profit	It represents the excess of sale proceeds over the cost, before taking into account administration, selling and distribution and financing charges.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
165.	Gross Working Capital	It refers to the firm's investment in current assets only.	FM	<u>CH</u> <u>38</u>	Working capital planning
166.	Hire Purchase	A hire purchase contract allows one party to acquire possession of goods belonging to another party by an initial deposit, followed by a number of installments over a specified period of time and the title to the asset will pass on to the hire purchaser after payment of final payment. The hire purchaser can claim depreciation as well as charge of interest as business expenditure.	FM	<u>CH</u> <u>37</u>	lease or buy decisions
167.	Implicit Cost	The trade credit has implicit cost. The suppliers would add up interest, administrative expenses, loss due to risk of bad debts <i>etc.</i> to the cost of supplies.	FM	<u>CH</u> <u>39</u>	Working capital FINANCING
168.	Income Gearing	The inverse of interest cover is called 'income gearing', indicating the proportion of pre-tax earnings committed to prior interest charges. The lower percentage indicates the company's ability to meet interest obligation in time.	FM	<u>CH</u> <u>33</u>	OPERATING AND financial LEVERAGE
169.	Indirect Method	Under this method, net profit is taken as a base and adjust it to arrive at cash flows from operating activities.	FM	<u>CH</u> <u>30</u>	CASH FLOW ANALYSIS
170.	Initial Public Offering	An unlisted company makes a fresh issue of securities to the public for the first time through issue of prospectus and gets the shares listed in a recognized stock exchange.	FM	<u>CH</u> <u>35</u>	MEDIUM AND LONG
171.	Interest Cover	This ratio is calculated to analyze the company's ability to meet interest obligations. It is expressed as number of times interest earned. It is measured as a ratio of profit before interest and tax to interest charges. The more the number of times interest earned, safer the position of debt providers.	FM	<u>CH</u> <u>33</u>	OPERATING AND financial LEVERAGE
172.	Interest Cover	It represents how many times interest charges are covered by funds that are available for payment of interest.	FM	<u>CH</u> <u>28</u>	Ratio Analysis

SN	Term	Explanation	Sub.	CH	Related Topic
173.	Interest Coverage Ratio	It shows how many times interest charges are covered by funds that are available for payment of interest. An interest cover of more than 3 times is considered desirable.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL
174.	Interest Rate	The interest rates are the measure of cost of borrowing and interest rates are dependent on factors like risk, size of loan, purpose of loan, profitability and stability of the borrower, market value of interest, general state of economy <i>etc.</i>	FM	<u>CH</u> <u>27</u>	TIME VALUE OF MONEY
175.	Internal Rate of Return	It is a percentage discount rate used in capital investment appraisals which equates the present value of anticipated cash inflows with initial capital outlay. IRR is compared with the desired rate of return or WACC to evaluate the capital investment decision.	FM	<u>CH</u> <u>36</u>	Capital budgeting techniques
176.	Inventory Turnover	It indicates the amount tied up in financing of raw materials, work-in-progress and finished stock. A low inventory turnover indicates high amount tied up in stocks.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
177.	Investing Activities	These activities relate to the acquisition and disposal of long-term assets and other investments not included in cash and cash equivalents.	FM	<u>CH</u> <u>30</u>	CASH FLOW ANALYSIS
178.	Investment Decisions	The investment decisions are those which determine how scarce resources in terms of funds available are committed to projects.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
179.	Lease	It is an agreement whereby a lessor conveys to the lessee, in return for rent, the right to use an asset for an agreed period of time. Leasing gives the facility to possess and operate the asset without owning the asset, by paying lease rentals. In lease contract, the lessor conveys the right to use an asset for an agreed period in return for rent.	FM	<u>CH</u> <u>37</u>	lease or buy decisions
180.	Lease Rentals	The lease rents are payable on periodical basis over the specified lease period. The lease rentals should be structured in such a way that it will be convenient for both the lessor and lessee.	FM	<u>CH</u> <u>37</u>	lease or buy decisions
181.	Lease, Rehabilitate, Operate and Transfer (L.R.O.T.)	Under this, the government will give a running plant for rehabilitation to put the plant on profitability track or for increasing its production capacity, and operate it for certain period and then transfer the project to the government.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL
182.	Lessor	The lessor is the owner of the asset and is entitled to the benefit of depreciation.	FM	<u>CH</u> <u>37</u>	lease or buy decisions
183.	Letter of Credit	It is an arrangement by which the issuing bank undertakes to pay against presentation of stipulated documents. It is also called as 'documentary credit'.	FM	<u>CH</u> <u>39</u>	Working capital FINANCING
184.	Letter of Intent	An appraisal of the project, if the financial institution satisfies in all aspects about the project, it will issue a sanction letter called 'letter of intent'.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL

SN	Term	Explanation	Sub.	CH	Related Topic
185.	Leverage	It refers to the ability of a firm in employing long-term funds having a fixed interest, to enhance returns to the owners.	FM	<u>CH</u> <u>33</u>	OPERATING AND financial LEVERAGE
186.	Leveraged Lease	In this, the lessor undertakes to finance only a part of the money required to purchase the asset and major part of finance is arranged with the financier to whom the title deeds of the asset are assigned.	FM	<u>CH</u> <u>37</u>	lease or buy decisions
187.	Line of Balance	It is a planning and monitoring the progress of an order, project or program to be completed by a target date. In LOB tasks are represented by vertical bars of a length, proportional to their production requirements and are plotted sequentially in vertical bar chart.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL
188.	Line of Credit	It is a commitment by a bank, at extra charge, to lend a certain amount of funds on demand specifying the maximum amount of unsecured credit.	FM	<u>CH</u> <u>39</u>	Working capital FINANCING
189.	Liquidity	It measures a company's ability to meet expected as well as unexpected requirements of cash, to expand its assets, to reduce its liabilities and to cover up any operating losses.	FM	<u>CH</u> <u>40</u>	CASH ASSETS AND TREASURY MANAGEMENT
190.	Liquidity	It measures a company's ability to meet expected as well as unexpected requirements of cash to expand assets, reduce its liabilities and cover up any operating losses.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
191.	Liquidity	It is the ability to realize value in money, the most liquid assets.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
192.	Liquidity Ratios	The liquidity ratios measure the liquidity of the firm and its ability to meet its maturing short-term obligations.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
193.	Liquidity Ratios	The liquidity part of working capital management is measured by computing the ratios like current ratio, quick ratio, absolute liquid ratio.	FM	<u>CH</u> <u>38</u>	Working capital planning
194.	Listing	The listing means admission of securities to dealing on a recognized stock exchange where the securities are bought and sold through its members called stock brokers.	FM	<u>CH</u> <u>35</u>	MEDIUM AND LONG
195.	Long-term Funds	The long-term funds include share capital, reserves and surplus and long-term loans.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
196.	Margin Money	The banks and financial institutions maintain a margin while financing the project cost by asking the borrower to bring a certain amount say 20% of the cost of project cost as margin money to safeguard from changes in value of assets that are being financed and provided as security.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL
197.	Marginal Cost of Capital	It is the cost of the next increments of capital raised by the firm. The new capital investment can be accepted if the IRR of the project is exceeding its marginal cost of capital.	FM	<u>CH</u> <u>31</u>	COST OF CAPITAL AND WACC
198.	Market Based	These ratios relate the firm's stock price to its earnings, book value etc. which indicates the share price movements in the	FM	<u>CH</u>	Ratio Analysis

SN	Term	Explanation	Sub.	CH	Related Topic
	Ratios	market.		<u>28</u>	
199.	Matching Approach	Under matching approach, to financing working capital requirements of a firm, each asset in the balance sheet assets side would be offset with a financing instrument of the same approximate maturity.	FM	<u>CH</u> <u>38</u>	Working capital planning
200.	Maximum Credit Limit	It is a term which determines the extent to which a customer is eligible for trade credit.	FM	<u>CH</u> <u>39</u>	Working capital FINANCING
201.	Means of Finance	To bring the project into reality, funds will be raised in the form of issue of equity shares, preference shares, debentures, bonds etc.; raising of long-term loans from banks and financial institutions as per the scheme of finance incorporated in the detailed project report.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL
202.	Miller-Orr Model	This model suggests the management of cash with the help of control limits. When the cash balance rises beyond the upper control limit, it is suggested to invest surplus cash in temporary marketable securities. If the cash balance drops below the lower control limit, the cash balance can be raised by selling marketable securities, so that the cash balance reaches return point.	FM	<u>CH</u> <u>40</u>	CASH ASSETS AND TREASURY MANAGEMENT
203.	MM Theory	It is considered as modern approach. According to the theory, the market value of the firm is independent of its capital structure and the rate of return required by shareholders increases linearly as the debt/equity ratio is increased. The cutoff rate for new investment will in all cases be average cost of capital and will be unaffected by the type of security used to finance the investment. The process of arbitrage will prevent the different market values for equivalent firms. Originally, MM theory has ignored the corporate and personal taxation, but later Miller has modified the theory by considering tax relief available to geared firms.	FM	<u>CH</u> <u>32</u>	CAPITAL structure AND VALUE OF FIRM
204.	Moderate Policy	The working capital level estimated between the two extremes i.e. restricted and relaxed policies.	FM	<u>CH</u> <u>38</u>	Working capital planning
205.	Modernization Project	In modernization, old machines are removed and new machines are installed in its place in order to cope with changing technology and competitive business environment to improve productivity and to reduce cost of production.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL
206.	Money Market	The temporary cash surplus available with a firm are commonly invested in easily marketable short-term securities. The market available for these short-term securities is termed as 'money market'.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
207.	MPBF	The Tandon committee has suggested three methods of working out the maximum amount of working capital finance that a firm may expect from the bank, which is termed as 'maximum permissible bank finance (MPBF)'.	FM	<u>CH</u> <u>39</u>	Working capital FINANCING

SN	Term	Explanation	Sub.	CH	Related Topic
208.	Negative Working Capital	It refers to the situation when current liabilities are exceeding the current assets.	FM	<u>CH</u> <u>38</u>	Working capital planning
209.	Negotiated Finance	The finance for working capital has to be negotiated with the lenders like commercial banks and it may be short-term or long-term in nature.	FM	<u>CH</u> <u>39</u>	Working capital FINANCING
210.	Net Float	The net float at a point of time is simply the overall difference between the firm's available bank balance and the balance as shown by the ledger account of the firm.	FM	<u>CH</u> <u>40</u>	CASH ASSETS AND TREASURY MANAGEMENT
211.	Net Income Approach	According to this approach any change in capital structure causes an overall changes in the cost of capital and also in the total value of the firm.	FM	<u>CH</u> <u>32</u>	CAPITAL structure AND VALUE OF FIRM
212.	Net Operating Income Approach	According to this, the value of the firm is independent of its capital structure and WACC is unchanged irrespective of the level of gearing.	FM	<u>CH</u> <u>32</u>	CAPITAL structure AND VALUE OF FIRM
213.	Net Present Value Method	In this method, the future cash flows are discounted at minimum required rate of return of the project and then deduct it from initial outlay to arrive at the NPV of the project. If the NPV is positive, then the project can be selected. NPV method is particularly useful for the selection of mutually exclusive projects.	FM	<u>CH</u> <u>36</u>	Capital budgeting techniques
214.	Net Profit	The net profit is arrived at from gross profit after deducting administration, selling and distribution expenses.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
215.	Net Working Capital	It refers to excess of current assets over current liabilities.	FM	<u>CH</u> <u>38</u>	Working capital planning
216.	Net worth	The net worth of a firm represents equity share capital, preference share capital and free reserves less intangible assets.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
217.	Nominal Interest Rate	It is the actual rate of interest paid.	FM	<u>CH</u> <u>27</u>	TIME VALUE OF MONEY
218.	Noncash Transactions	Investing and financing transactions that do not require the use of cash and cash equivalents and therefore, should be excluded from a cash flow statement.	FM	<u>CH</u> <u>30</u>	CASH FLOW ANALYSIS
219.	Open Account Trade Credit	It is the credit available to the buyer without any legal evidence or instrument and appears in the balance sheet of the buyer as 'sundry creditors'.	FM	<u>CH</u> <u>39</u>	Working capital FINANCING
220.	Operating Activities	These are the principal revenue producing activities of the enterprise. These transactions and events will be taken into consideration of net profit or loss.	FM	<u>CH</u> <u>30</u>	CASH FLOW ANALYSIS
221.	Operating Cycle	The operating cycle is the length of time between the company's outlay on raw materials, wages, expenses and inflow of cash from sale of goods. The quicker operating cycle leads to increase in profitability of the firm. The length of operating cycle is the indicator of efficiency in management of short-term funds and	FM	<u>CH</u> <u>38</u>	Working capital planning

SN	Term	Explanation	Sub.	CH	Related Topic
		working capital.			
222.	Operating Lease	It generally arises out of a sale transaction. Usually the manufacturer supplies the asset, and allows the purchaser to keep the asset on lease basis until the full purchase price is paid in installments.	FM	<u>CH</u> <u>37</u>	lease or buy decisions
223.	Operating Leverage	It refers to the existence of fixed cost element in total cost structure of a firm and its impact on firm's ability. It is expressed as Contribution/EBIT. A high operating leverage indicates a larger proportion of fixed costs causing low net profit and the EBIT will tend to vary more with sales.	FM	<u>CH</u> <u>33</u>	OPERATING AND financial LEVERAGE
224.	Operating Ratios	These are the ratios of all operating expenses to sales. For example, material cost ratio, labour cost ratio, factory overhead ratio <i>etc.</i>	FM	<u>CH</u> <u>28</u>	Ratio Analysis
225.	Operational Cashflows	These are the cash flows relating to normal business operations like cash receipts from sales, payment for supplies, payment for operational expenses <i>etc.</i>	FM	<u>CH</u> <u>40</u>	CASH ASSETS AND TREASURY MANAGEMENT
226.	Opportunity Cost of Capital	It is the expected rate of return that equates to the market rate of interest for investments of a similar risk profile.	FM	<u>CH</u> <u>31</u>	COST OF CAPITAL AND WACC
227.	Optimum Capital Structure	It the combination of debt and equity that leads to the maximization of the value of the firm. The company's long-term survival and growth depends upon design of optimum capital structure.	FM	<u>CH</u> <u>32</u>	CAPITAL structure AND VALUE OF FIRM
228.	Over Capitalization	It is a situation where excessive investments are made in current assets than required, leads to inefficiency in working capital management.	FM	<u>CH</u> <u>38</u>	Working capital planning
229.	Overtrading	It is a situation where a firm attempts to increase its sales level without having a support of adequate working capital.	FM	<u>CH</u> <u>38</u>	Working capital planning
230.	Payback Period	Under this method accumulation of cash flows is made year after year until it meets the initial capital outlay, to identify the recovery time of the capital amount invested. In periods of capital rationing, the project with earliest payback period would be given preference over the others.	FM	<u>CH</u> <u>36</u>	Capital budgeting techniques
231.	Payment Float	It refers to the cheques issued but not paid by the bank at any particular time.	FM	<u>CH</u> <u>40</u>	CASH ASSETS AND TREASURY MANAGEMENT
232.	Pecking Order Theory	The theory does not suggest any particular target or optimal capital structure and firms prefer internal to external financing. If the firms do require external financing they will issue the safest security first in the order of term loans, unsecured debentures, secured debentures, convertible debentures, preference shares, convertible preference shares and finally in the form of new equity shares.	FM	<u>CH</u> <u>32</u>	CAPITAL structure AND VALUE OF FIRM

SN	Term	Explanation	Sub.	CH	Related Topic
233.	Percentage Sales Method	Under this method, the level of current assets and current liabilities are determined by establishing its past trend in relation to sales.	FM	<u>CH</u> <u>38</u>	Working capital planning
234.	Permanent Working Capital	It refers to the need for minimum level of working capital to carry the firm's business irrespective of change in level of sales or production. Such minimum level of working capital is also called as permanent working capital, fixed working capital and regular working capital.	FM	<u>CH</u> <u>38</u>	Working capital planning
235.	Perpetuity	In perpetuity, there is an equal cash flow per period forever, i.e. for an indefinite period and in such case principal never be repaid.	FM	<u>CH</u> <u>27</u>	TIME VALUE OF MONEY
236.	Personal Taxation	A business organization must consider the tax consequences for the investors in company's shares, debentures and bonds in order to attract investors to the firm's securities.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
237.	Playing the Float	The company can make use of the payment float is called 'playing the float'.	FM	<u>CH</u> <u>40</u>	CASH ASSETS AND TREASURY MANAGEMENT
238.	Positive Working Capital	It represents the excess of current assets over current liabilities.	FM	<u>CH</u> <u>38</u>	Working capital planning
239.	Preference Dividend	The preference shareholders entitle for a fixed rate of dividend out of profits available for distribution.	FM	<u>CH</u> <u>31</u>	COST OF CAPITAL AND WACC
240.	Preference Shares	The preference shareholders get their stated dividend before equity shareholders can receive any dividends and in the event of winding up the preference shareholders have a claim on available assets before the equity shareholders. The preference shareholders will not entitle voting right in the general meeting except to the extent their rights are affected.	FM	<u>CH</u> <u>35</u>	MEDIUM AND LONG
241.	Present Value of Ordinary Annuity	It is the sum of the present values of series of regular periodic receipts or payments.	FM	<u>CH</u> <u>27</u>	TIME VALUE OF MONEY
242.	Price Earning	It indicates the ratio of market price of an equity share to the earnings per share. It measures the number of times the earnings per share discounts the market price of equity.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
243.	Price-Earning Method	The cost of equity capital is computed by taking the capitalized stream of future earnings per share.	FM	<u>CH</u> <u>31</u>	COST OF CAPITAL AND WACC
244.	Profit Maximization	The true objective of the firm is maximization of profits. The attainment of objectives like survival, security or the maintenance of liquid assets is possible only when the firm earns profit.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
245.	Profitability	It refers to a situation in terms of efficiency in utilization of resources to achieve profit maximization for the owners.	FM	<u>CH</u> <u>40</u>	CASH ASSETS AND TREASURY

SN	Term	Explanation	Sub.	CH	Related Topic
					MANAGEMENT
246.	Profitability	It signifies the operational efficiency of an organization by value addition through the utilization of resources to achieve profit maximization.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
247.	Profitability Index	It is the present value of anticipated cash inflows divided by the initial investment. A project with an index of more than 1 will be selected.	FM	<u>CH</u> <u>36</u>	Capital budgeting techniques
248.	Profitability Ratios	These ratios help in assessing the adequacy of profits earned by the company and indicate whether profitability is declining or increasing. Profitability ratios are measured with reference to sales, capital employed, total assets employed, shareholders funds etc.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
249.	Project Appraisal	It is the process by which a financial institution makes an independent and objective assessment of the various aspects of the investment proposition for arriving at a financing decision. The project appraisal is done from four angles viz., financial feasibility, technical feasibility, economic feasibility, managerial competence.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL
250.	Project Incentives	The location of the industry and setting up of a project are influenced by state incentives, and tax considerations like incentives offered for 100% EOU, small scale units, cash subsidy for setting of project in backward areas, sales tax deferment, subsidy in electricity charges, rent free land and building etc.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL
251.	Promoters Contribution	An entrepreneur who promotes the project will also participate in the scheme of finance by bringing certain portion of the project cost, called 'promoters contribution'.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL
252.	Quick Assets	The quick assets include all current assets except inventories.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
253.	Real Interest Rate	It is the rate of interest adjusted for inflation.	FM	<u>CH</u> <u>27</u>	TIME VALUE OF MONEY
254.	Receivables	It arises from sale of goods and services on credit basis. Receivable balance as shown in the balance sheet of a company relates to sales made on credit for which payment has not yet received.	FM	<u>CH</u> <u>41</u>	RECEIVABLES MANAGEMENT
255.	Regression Analysis	It is a statistical technique used in establishing of trend relation in between sales and working capital, used for estimation of working capital needs of the forthcoming period.	FM	<u>CH</u> <u>38</u>	Working capital planning
256.	Relaxed Policy	It allows sufficient cushion for fluctuations in funds requirement for financing various items of working capital.	FM	<u>CH</u> <u>38</u>	Working capital planning
257.	Replacement Project	The existing equipment, which is deteriorated due to obsolescence and its economic life is completed, should be replaced with a new machine, which may be more efficient than old machine.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL

SN	Term	Explanation	Sub.	CH	Related Topic
258.	Resource Levelling	It is the usage of resources during the project duration with minimum variation in source requirements without extending the project completion time.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL
259.	Restricted Policy	It involves the rigid estimation of working capital to the requirements of the firm and then forcing it to adhere to the estimate.	FM	<u>CH</u> <u>38</u>	Working capital planning
260.	Restrictive Covenants	The covenants in the long-term loan agreement is incorporated to protect the interest of the financial institution.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL
261.	Retained Earnings	These are the profits ploughed back and retained with the company, without distributing them in the form of dividends.	FM	<u>CH</u> <u>31</u>	COST OF CAPITAL AND WACC
262.	Return on Equity	Net profit margin × Total assets turnover ratio × Total assets to Net worth.	FM	<u>CH</u> <u>28</u>	Ratio Analysis
263.	Rights Issue	A company issues fresh capital to the existing shareholders in proportion to their existing holding.	FM	<u>CH</u> <u>35</u>	MEDIUM AND LONG
264.	Risk	Capital structure decisions assume vital significance in corporate financial management due to their influence both on risk and return of the shareholders.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
265.	Sale and Lease Back	Under this, the lessee first purchases the equipment and then sell it to the leasing company, which in turn leases it to the same purchaser/lessee. This form of finance is used to improve the liquidity position of the lessee.	FM	<u>CH</u> <u>37</u>	lease or buy decisions
266.	Sales Aid Leasing	A leasing company will enter into an agreement with the seller, usually manufacturer of the equipment, to market the latter's product through its leasing operations. The leasing company will also get commission for such sales, which add-up to its profits.	FM	<u>CH</u> <u>37</u>	lease or buy decisions
267.	Securitization	It is the process of converting the mortgaged loans and other future receivables into negotiable securities which may be traded later in the open market, which are collateralized by the underlying assets and their associated income streams.	FM	<u>CH</u> <u>35</u>	MEDIUM AND LONG
268.	Simple Interest	It is calculated only on original principal amount till it is repaid back to the lender.	FM	<u>CH</u> <u>27</u>	TIME VALUE OF MONEY
269.	Sinking Fund	It is a form of specific reserve used for the redemption of long-term debt or replacement of capital assets, by setting aside certain amount of money every year for a specified time by investing the same in outside marketable securities which can be sold at the time of maturity of debt or replacement of asset is needed.	FM	<u>CH</u> <u>27</u>	TIME VALUE OF MONEY
270.	Source of Fund	A decrease in an asset or an increase in liability over the year results in source of fund.	FM	<u>CH</u> <u>29</u>	FUNDS FLOW ANALYSIS
271.	Spontaneous	It is the finance naturally arise in the course of business like	FM	<u>CH</u>	Working capital

SN	Term	Explanation	Sub.	CH	Related Topic
	Finance	trade creditors, credit from employees <i>etc.</i>		<u>39</u>	FINANCING
272.	Starting Date	It is the date on which credit period or discount period starts. It could begin from the date of goods dispatch, date of invoice or some other date accepted by the parties to sale.	FM	<u>CH</u> <u>39</u>	Working capital FINANCING
273.	Static Trade-off Theory	The theory says that the value of firm depends on the tax savings on interest payments which induces the firm to borrow to the margin where the present value of interest tax shields is just offset by the value of loss to agency costs of debt and the possibility of financial distress.	FM	<u>CH</u> <u>32</u>	CAPITAL structure AND VALUE OF FIRM
274.	Stock Market	It is a place where the savers and the users of their funds come together in the market for finance, and the rules of supply and demand are applicable and also subject to Government regulation.	FM	<u>CH</u> <u>35</u>	MEDIUM AND LONG
275.	Strategic Financial Management	The focus of strategic financial management is a long-range financial planning to achieve the mission and objectives of the firm through financial discipline.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
276.	Strategic Financial Planning	It involves financial planning, financial forecasting, provision of finance and formulation of finance policies which should lead the firm's survival and success and to counter the uncertain and imperfect market conditions and highly competitive business environment.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
277.	Strategic Planning	The aim of strategic planning is to create a viable link between the organization's objectives and resources and its environmental opportunities.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
278.	Strategy	A strategy is a declaration of intent. It defines what the organization wants to go to fulfill its purpose and achieve its mission. It provides the framework for guiding choices which determine the organization's nature and direction.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
279.	Structural Health Ratios	These ratios include current assets to total net assets, composition of current assets, debtors turnover ratio, debtors collection period, bad debts to sales, creditors payment period <i>etc.</i>	FM	<u>CH</u> <u>38</u>	Working capital planning
280.	Structural Leverage	It is expressed in traditional form as debt-equity ratio. A high ratio indicates large outside borrowings and it enables to have control over the firm's management and the firm carries higher level of financial risk.	FM	<u>CH</u> <u>33</u>	OPERATING AND financial LEVERAGE
281.	Sweat Equity Shares	A company can issue sweat equity shares to its employees or directors at discount or for consideration other than cash for providing know-how or making available rights in the nature of intellectual property rights or value addition <i>etc.</i>	FM	<u>CH</u> <u>35</u>	MEDIUM AND LONG
282.	SWOT Analysis	It is the conduct of environmental scans by internal appraisals of the strengths and weaknesses of the organization and external appraisals of the opportunities and threats which the	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT

SN	Term	Explanation	Sub.	CH	Related Topic
		organization face it.			
283.	Tax Effects	The lessee can claim full amount of annual lease payments and maintenance expense of the asset as a deductible expense and the lessor is entitled to claim the depreciation allowance on leased asset.	FM	<u>CH</u> <u>37</u>	lease or buy decisions
284.	Tax Planner	The payment of corporate taxes involves cash outflows and will reduce the wealth available to the shareholders. One of the functions of a Finance manager is to act as a Tax planner of the organization and to minimize the cash outflows in the form of taxes.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
285.	Tax Shield	The interest payable on debt is treated as an expense and it reduces taxable profit. The tax savings due to interest charge is considered as tax shield and ultimately reduces the cost debt.	FM	<u>CH</u> <u>31</u>	COST OF CAPITAL AND WACC
286.	Tax Shield	Any interest payable on debt is a charge against profit and it will reduce the profit. Ultimately the company's liability towards taxes would decrease. This phenomenon is termed as ' <i>tax shield</i> '.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
287.	Temporary Working Capital	It is the extra working capital over and above the permanent working capital needed to support the changing business activities and levels of production and sales. It is also called as fluctuating working capital.	FM	<u>CH</u> <u>38</u>	Working capital planning
288.	Term Structure of Interest Rates	It describes the relationship between interest rates and loan maturities.	FM	<u>CH</u> <u>27</u>	TIME VALUE OF MONEY
289.	Time Value of Money	The value of money received today is different from the value of money received after sometime in the future and the value of money is time dependent due to inflation and interest effect on money.	FM	<u>CH</u> <u>27</u>	TIME VALUE OF MONEY
290.	Total Leverage	It may be defined as the potential use of fixed cost, both operating and financial, which indicates the effect of sales volume change on the EPS of the firm. It is expressed as Contribution/EBT. A higher combined leverage indicates the firm is subject to greater risk which includes both business risk and financial risk.	FM	<u>CH</u> <u>33</u>	OPERATING AND financial LEVERAGE
291.	Trade Credit	It is the credit offered by a business firm to another business firm as a part of trade transaction.	FM	<u>CH</u> <u>41</u>	RECEIVABLES MANAGEMENT
292.	Trade Credit	It is a spontaneous source of finance whereby business firms are allowed by the suppliers of raw materials, services <i>etc.</i> to defer the immediate payment to a definite future period.	FM	<u>CH</u> <u>39</u>	Working capital FINANCING
293.	Trading on Equity	The debt component should be used in the capital structure to enhance the return to the equity shareholders is called ' <i>trading on equity</i> '.	FM	<u>CH</u> <u>33</u>	OPERATING AND financial LEVERAGE
294.	Treasury Management	It deals with efficient and skilled management of corporate finances and also deals with management of cash assets and its	FM	<u>CH</u> <u>40</u>	CASH ASSETS AND TREASURY

SN	Term	Explanation	Sub.	CH	Related Topic
		financial risk. The basic objective of treasury management is to maximize the availability of funds at any point of time and at desired place for investment and to minimize the situations of cash deficits.			MANAGEMENT
295.	Under Capitalization	It is a situation where the company does not have funds sufficient to run its normal operations smoothly.	FM	<u>CH</u> <u>38</u>	Working capital planning
296.	Value Maximization	The value maximization is modified that the maximization of shareholders wealth is possible with the maximization of market value of equity shares of the company.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
297.	Virtual Banking	It denotes the provision of banking and related services through extensive use of information technology without direct recourse to the bank by the customer.	FM	<u>CH</u> <u>40</u>	CASH ASSETS AND TREASURY MANAGEMENT
298.	WACC	The weighted average cost of capital of the company is calculated by aggregating together the costs of each individual source of finance and weighted by their relative proportions to total amount of long-term funds raised. WACC is the required minimum rate of return the firm must earn to maintain its market value. WACC is taken as the discounting rate for appraisal of capital projects.	FM	<u>CH</u> <u>31</u>	COST OF CAPITAL AND WACC
299.	WACC Approach	According to this traditional approach, the optimum capital structure is determined at a point where WACC is minimum and at this point the value of firm is maximized.	FM	<u>CH</u> <u>32</u>	CAPITAL structure AND VALUE OF FIRM
300.	Warrant	A warrant is a long-term security attached to a bond or preferred stock, which gives the holder right to buy a fixed number of company's equity shares at a future specified period, under prescribed terms and conditions.	FM	<u>CH</u> <u>35</u>	MEDIUM AND LONG
301.	Wealth Maximization	The wealth maximization objective of financial management asserts on maximization of shareholders wealth in the form of dividend and capital gains.	FM	<u>CH</u> <u>26</u>	Introduction TO FINANCIAL MANAGEMENT
302.	Working Capital	It is the excess of current assets over current liabilities.	FM	<u>CH</u> <u>29</u>	FUNDS FLOW ANALYSIS
303.	Working Capital	It refers to a firm's investment in short-term assets. It refers to the excess of current assets over current liabilities. It is also called as circulating capital, fluctuating capital and revolving capital.	FM	<u>CH</u> <u>38</u>	Working capital planning
304.	Working Capital Leverage	It refers to the impact of level of investment in working capital on company's return on capital employed. It measures the responsiveness of ROCE for changes in current assets.	FM	<u>CH</u> <u>38</u>	Working capital planning
305.	Yield to Maturity	It is the rate of return earned on security if it is held till maturity. It can be explained with the help of a graph called 'yield to maturity curve'.	FM	<u>CH</u> <u>27</u>	TIME VALUE OF MONEY
306.	Zero Balance Account	It is a system of cash management in which every day the firm totals all cheques presented for payment against the account	FM	<u>CH</u> <u>40</u>	CASH ASSETS AND TREASURY

SN	Term	Explanation	Sub.	CH	Related Topic
		and transfers the balance amount in the account by buying marketable securities. In case of shortage of cash the firm will sell marketable securities.			MANAGEMENT
307.	Zero Date	The zero date of a project means a date is fixed up from which the implementation of the project begins, which is a base for counting the time as well as cost of the project.	FM	<u>CH</u> <u>34</u>	PROJECT PLANNING AND APPRAISAL
308.	Zero Working Capital	It refers to a situation where at all times the current assets shall equal to the current liabilities and excess of investment in current assets is avoided and the firm's current ratio is 1:1.	FM	<u>CH</u> <u>38</u>	Working capital planning

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Summary of Ratio Analysis

Liquidity Ratio

- (i) **Current Ratio** = Current Assets ÷ Current Liabilities;
- (ii) **Quick Ratio** = Quick Assets ÷ Current Liabilities
- (iii) **Quick Ratio** = Quick Liquid Assets ÷ Quick Liabilities

Meaning of the terms used:

- (i) **Current Assets** = Inventories + Sundry Debtors + Cash & Bank Balance + Receivables/ Accruals + Loans & Advances + Disposable Investment.
- (ii) **Current Liabilities** = Creditors for goods & Services + Short-term Loans + Bank Overdraft + Cash Credit + Outstanding Expenses + Provision for Taxation + Proposed Dividend + Unclaimed Dividend.
- (iii) **Quick Assets** = Current Assets – Inventories
- (iv) **Quick Liabilities** = Current Liabilities – Bank Overdraft – Cash Credit

Coverage Ratios: The coverage ratios measure the firm's ability to service the fixed liabilities.

Debt service coverage ratio = {Earning Available for Debt Service ÷ (Interest + Installments)}

- Earning for debt service = Net profit + Non -cash operating expenses like depreciation and other amortizations + non -operating adjustments like loss on sales of + Fixed assets + interest on Debt fund.
- **Interest Coverage Ratio** = EBIT ÷ Interest
- **Preference Dividend Coverage ratio** = EAT ÷ Preference dividend liability
- **Capital Gearing Ratio** = $\frac{\text{Preference share capital} + \text{Debentures} + \text{Long term loan}}{\text{Equity share holder fund}}$

Equity Share holder fund = Equity share capital + Reserve & surplus – Miss Exp – Losses

Debt Equity Ratio = Debt ÷ Equity

- Debt = Debenture + Long term loan
- Equity = Equity Share capital + Preference Share capital – Miss exp – Accumulated Losses

Proprietary Fund Ratio = Equity ÷ (Total Asset – Miss Exp)

Activity Ratios: The activity ratios are also called the turnover ratios or performance ratios.

- **Capital Turnover Ratio** = Sales ÷ Capital Employed
- **Fixed Assets turnover ratio** = Sales ÷ Capital Assets
- **Working Capital Turnover** = Sales ÷ Working Capital

Inventory Turnover Ratio: This ratio also known as stock turnover ratio establishes the relationship between the cost of goods sold.

- **Inventory Turnover Ratio** = COS or GOGS ÷ Average Inventory
 - **Average Inventory** = {(Opening Stock + Closing stock) ÷ 2}
- **In the case of inventory of raw material** = Raw Material Consumed ÷ Average Raw Material Stock

Debtors' turnover ratio = Credit Sales ÷ Average Accounts Receivable .

Creditors turnover ratio = Credit Purchase , Average Accounts Payable.

Debtors' turnover ratio indicates the average collection period. However, the average collection period can be directly calculated as follows:

= $\frac{\text{Average Accounts Receivable}}{\text{Average Daily Credit Sales}}$

Where , **Average Daily Credit Sales** = $\frac{\text{Credit Sales}}{365}$

Similarly, Average payment period can be calculated using:

= $\frac{\text{Average Accounts Payable}}{\text{Average Daily Credit Purchase.}}$

Profitability Ratio: = EAT ÷ Average Shareholder fund

Earnings per share: = PAFESH ÷ No of Equity Shares

PE Ratio = Market Price per share , Earnings per share

Return on Capital Employed/ Return on investment.

- ROI = $\frac{\text{(Return , Capital Employed)}}{\text{(Return , Sales)}} \times 100$
- = $\frac{\text{(Return , Sales)}}{\text{(Sales , Capital Employed)}} \times 100$
- = $\frac{\text{(Return , Sales)}}{\text{(Sales , Capital Employed)}} \times 100$ = Profitability Ratio
- = $\frac{\text{(Return , Sales)}}{\text{(Sales , Capital Employed)}} \times 100$ = Capital Turnover Ratio

Return on Assets (ROA):

- ROA = $\frac{\text{Net profit after taxes}}{\text{Average total assets}}$
- = $\frac{\text{Net profit after taxes}}{\text{Average tangible assets}}$
- = $\frac{\text{Net profit after taxes}}{\text{Average fixed assets}}$

Book value per share = $\frac{\text{Equity Capital} + \text{Reserve \& surplus} - \text{miss Exp}}{\text{No. of Equity Shares}}$

Gross Margin = Profit before depreciation but after interest before tax.

Gross margin ratio = $\frac{\text{Gross Profit}}{\text{Sale}}$

Return = EBIT

Capital Employed = Equity Share capital + Reserve & Surplus + Preference Share capital + Debenture and other long term loan

ROI can be improved either by improving operating profit ratio or capital turnover or by both.



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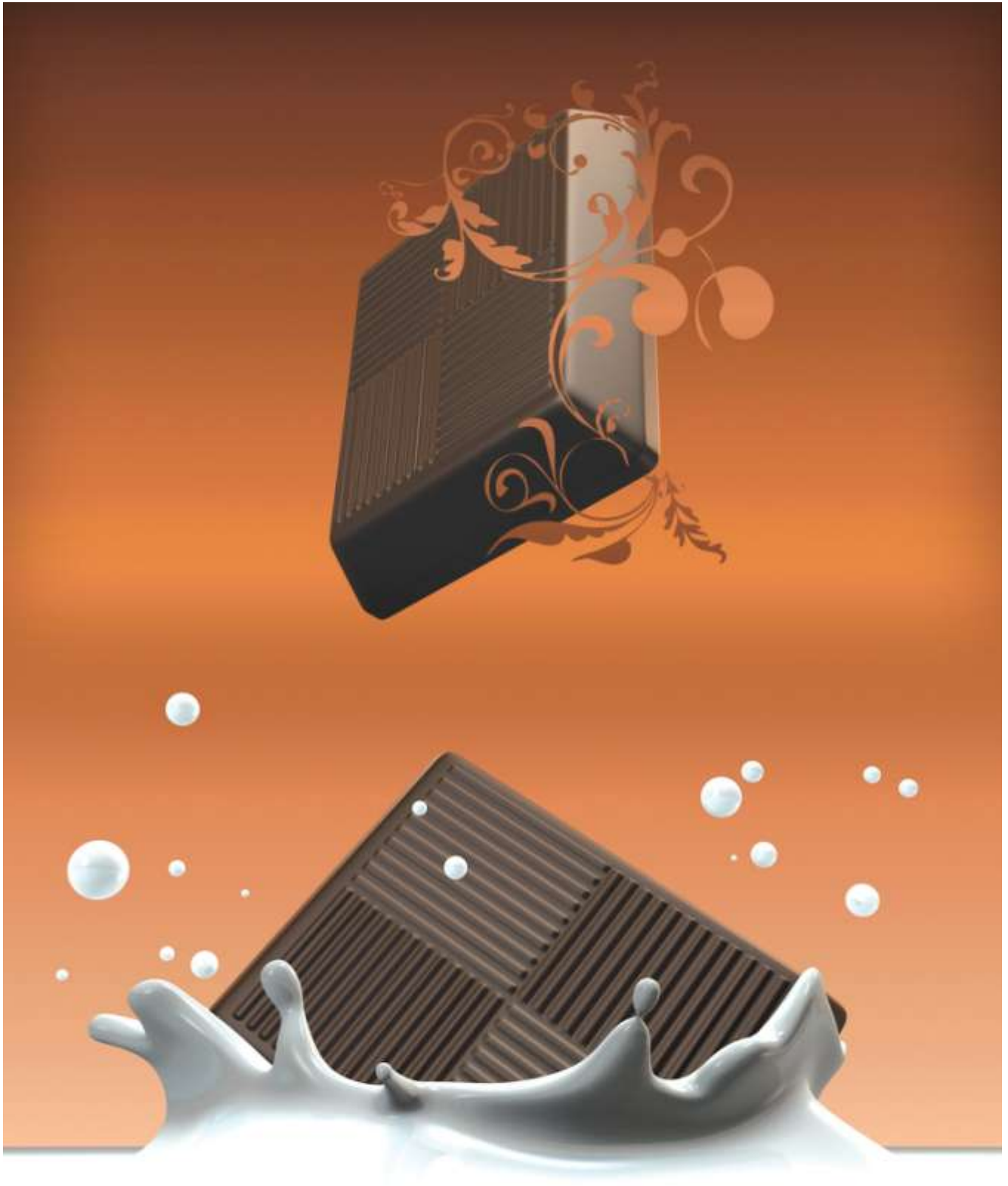
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