

PAPER – 2: STRATEGIC FINANCIAL MANAGEMENT

QUESTIONS

Mergers and Acquisitions

- XYZ, a large business house is planning to acquire ABC another business entity in similar line of business. XYZ has expressed its interest in making a bid for ABC. XYZ expects that after acquisition the annual earning of ABC will increase by 10%.

Following information, ignoring any potential synergistic benefits arising out of possible acquisitions, are available:

	XYZ	ABC	Proxy entity for XYZ & ABC in the same line of business
Paid up Capital (₹ Crore)	1025	106	--
Face Value of Share is ₹10			
Current share price	₹ 129.60	₹ 55	--
Debt : Equity (at market values)	1 : 2	1 : 3	1 : 4
Equity Beta	--	--	1.1

Assume Beta of debt to be zero and corporate tax rate as 30%, determine the Beta of combined entity.

Foreign Exchange Risk Management

- XYZ Ltd. is an export oriented business house based in Mumbai. The Company invoices in customers' currency. Its receipt of US \$ 1,00,000 is due on September 1, 2009.

Market information as at June 1, 2009 is:

Exchange Rates		Currency Futures	
US \$/₹		US \$/₹	Contract size ₹4,72,000
Spot	0.02140	June	0.02126
1 Month Forward	0.02136	September	0.02118
3 Months Forward	0.02127		
		Initial Margin	Interest Rates in India
June		₹ 10,000	7.50%
September		₹ 15,000	8.00%

Suppose the XYZ Ltd. has opted for Future Contracts for hedging the risk and on September 1, 2009 the spot rate US \$/₹ is 0.02133 and currency future rate is 0.02134, then what will be the variation margin in INR to settle the futures contract.

3. A Ltd. of U.K. has imported some chemical worth of USD 3,64,897 from one of the U.S. suppliers. The amount is payable in six months' time. The relevant spot and forward rates are:

Spot rate	USD 1.5617-1.5673
6 months' forward rate	USD 1.5455 –1.5609

The borrowing rates in U.K. and U.S. are 7% and 6% respectively and the deposit rates are 5.5% and 4.5% respectively.

Currency options are available under which one option contract is for US\$ 21250. The option premium for US\$ at a strike price of GBP 0.58825/USD is GBP 0.036 (call option) and GBP 0.056 (put option) for 6 months period.

The company has 3 choices:

- (i) Forward cover
- (ii) Money market cover, and
- (iii) Currency option

Which of the alternatives is preferable by the company?

Mutual Funds

4. Based on the following data, estimate the Net Asset Value (NAV) on per unit basis of a Regular Income Scheme of a Mutual Fund on 31-3-2015:

	₹ (in lakhs)
Listed Equity shares at cost (ex-dividend)	40.00
Cash in hand (As on 1-4-2014)	5.00
Bonds & Debentures at cost of these, Bonds not listed & not quoted	8.96
	2.50
Other fixed interest securities at cost	9.75
Dividend accrued	1.95
Amount payable on shares	13.54
Expenditure accrued	1.76

Current realizable value of fixed income securities of face value of ₹ 100 is ₹ 96.50.

Number of Units (₹ 10 face value each): 275000

All the listed equity shares were purchased at a time when market portfolio index was 12,500. On NAV date, the market portfolio index is at 19,975.

There has been a diminution of 15% in unlisted bonds and debentures valuation.

Listed bonds and debentures carry a market value of ₹ 7.5 lakhs, on NAV date.

Operating expenses paid during the year amounted to ₹ 2.24 lakhs.

Financial Services

5. Extracts from the forecasted financial statements of ABC Ltd. are given below.

	₹ '000	₹ '000
Turnover		21,300
Cost of sales		16,400
Gross Profit		4,900
Non-current assets		3,000
Current assets		
Inventory	4,500	
Trade receivables	3,500	8,000
Total Assets		11,000
Trade payables	3,000	
Overdraft	3,000	6,000
Equity Shares	1,000	
Reserves	1,000	2,000
Debentures		3,000
Total Liabilities		11,000

XYZ Fincorp, a factor has offered to manage the trade receivables of ABC Ltd. under a servicing and factor-financing agreement. XYZ expects to reduce the average trade receivables period of ABC from its current level to 35 days; to reduce bad debts from 0.9% of turnover to 0.6% of turnover; and to save of ABC ₹ 40,000 per year on account of administration costs.

The XYZ would also make an advance to ABC of 80% of the revised book value of trade receivables. The interest rate on the advance would be 2% higher than the ABC currently pays on its overdraft i.e. 7%. The XYZ would charge a fee of 0.75% of turnover on a with-recourse basis, or a fee of 1.25% of turnover on a non-recourse basis.

Assuming 365 days in a year and all sales and purchases are on credit, you are required to evaluate the proposal of XYZ Fincorp.

Security Analysis

6. The following data is related to 8.5% Fully Convertible (into Equity shares) Debentures issued by JAC Ltd. at ₹ 1000.

Market Price of Debenture ₹ 900

Conversion Ratio	30
Straight Value of Debenture	₹ 700
Market Price of Equity share on the date of Conversion	₹ 25
Expected Dividend Per Share	₹ 1

You are required to calculate:

- (a) Conversion Value of Debenture
- (b) Market Conversion Price
- (c) Conversion Premium per share
- (d) Ratio of Conversion Premium
- (e) Premium over Straight Value of Debenture
- (f) Favourable income differential per share
- (g) Premium pay back period

International Financial Management

7. Odessa Limited has proposed to expand its operations for which it requires funds of \$ 15 million, net of issue expenses which amount to 2% of the issue size. It proposed to raise the funds through a GDR issue. It considers the following factors in pricing the issue:
 - (i) The expected domestic market price of the share is ₹ 300
 - (ii) 3 shares underly each GDR
 - (iii) Underlying shares are priced at 10% discount to the market price
 - (iv) Expected exchange rate is ₹ 60/\$

You are required to compute the number of GDR's to be issued and cost of GDR to Odessa Limited, if 20% dividend is expected to be paid with a growth rate of 20%.

Leasing

8. R Ltd., requires a machine for 5 years. There are two alternatives either to take it on lease or buy. The company is reluctant to invest initial amount for the project and approaches their bankers. Bankers are ready to finance 100% of its initial required amount at 15% rate of interest for any of the alternatives.

Under lease option, upfront Security deposit of ₹ 5,00,000/- is payable to lessor which is equal to cost of machine. Out of which, 40% shall be adjusted equally against annual lease rent. At the end of life of the machine, expected scrap value will be at book value after providing, depreciation @ 20% on written down value basis.

Under buying option, loan repayment is in equal annual installments of principal amount, which is equal to annual lease rent charges. However in case of bank finance for lease

option, repayment of principal amount equal to lease rent is adjusted every year, and the balance at the end of 5th year.

Assume Income tax rate is 30%, interest is payable at the end of every year and discount rate is @ 15% p.a. The following discounting factors are given:

Year	1	2	3	4	5
Factor	0.8696	0.7562	0.6576	0.5718	0.4972

Which option would you suggest on the basis of net present values?

International Capital Budgeting

9. A multinational company is planning to set up a subsidiary company in India (where hitherto it was exporting) in view of growing demand for its product and competition from other MNCs. The initial project cost (consisting of Plant and Machinery including installation) is estimated to be US\$ 500 million. The net working capital requirements are estimated at US\$ 50 million. The company follows straight line method of depreciation. Presently, the company is exporting two million units every year at a unit price of US\$ 80, its variable cost per unit being US\$ 40.

The Chief Financial Officer has estimated the following operating cost and other data in respect of proposed project:

- (i) Variable operating cost will be US \$ 20 per unit of production;
- (ii) Additional cash fixed cost will be US \$ 30 million p.a. and project's share of allocated fixed cost will be US \$ 3 million p.a. based on principle of ability to share;
- (iii) Production capacity of the proposed project in India will be 5 million units;
- (iv) Expected useful life of the proposed plant is five years with no salvage value;
- (v) Existing working capital investment for production & sale of two million units through exports was US \$ 15 million;
- (vi) Export of the product in the coming year will decrease to 1.5 million units in case the company does not open subsidiary company in India, in view of the presence of competing MNCs that are in the process of setting up their subsidiaries in India;
- (vii) Applicable Corporate Income Tax rate is 35%, and
- (viii) Required rate of return for such project is 12%.

Assuming that there will be no variation in the exchange rate of two currencies and all profits will be repatriated, as there will be no withholding tax, estimate Net Present Value (NPV) of the proposed project in India.

Present Value Interest Factors (PVIF) @ 12% for five years are as below:

Year	1	2	3	4	5
PVIF	0.8929	0.7972	0.7118	0.6355	0.5674

Portfolio Management

10. A company has a choice of investments between several different equity oriented mutual funds. The company has an amount of ₹1 crore to invest. The details of the mutual funds are as follows:

Mutual Fund	Beta
A	1.6
B	1.0
C	0.9
D	2.0
E	0.6

Required:

- If the company invests 20% of its investment in the first two mutual funds and an equal amount in the mutual funds C, D and E, what is the beta of the portfolio?
 - If the company invests 15% of its investment in C, 15% in A, 10% in E and the balance in equal amount in the other two mutual funds, what is the beta of the portfolio?
 - If the expected return of market portfolio is 12% at a beta factor of 1.0, what will be the portfolios expected return in both the situations given above?
11. A Portfolio Manager (PM) has the following four stocks in his portfolio:

Security	No. of Shares	Market Price per share (₹)	β
VSL	10,000	50	0.9
CSL	5,000	20	1.0
SML	8,000	25	1.5
APL	2,000	200	1.2

Compute the following:

- Portfolio beta.
- If the PM seeks to reduce the beta to 0.8, how much risk free investment should he bring in?

- (iii) If the PM seeks to increase the beta to 1.2, how much risk free investment should he bring in?

12. A has portfolio having following features:

Security	β	Random Error σ_{ei}	Weight
L	1.60	7	0.25
M	1.15	11	0.30
N	1.40	3	0.25
K	1.00	9	0.20

You are required to find out the risk of the portfolio if the standard deviation of the market index (σ_m) is 18%.

Security Valuation

13. The following is the Yield structure of AAA rated debenture:

Period	Yield (%)
3 months	8.5%
6 months	9.25
1 year	10.50
2 years	11.25
3 years and above	12.00

- (i) Based on the expectation theory calculate the implicit one-year forward rates in year 2 and year 3.
- (ii) If the interest rate increases by 50 basis points, what will be the percentage change in the price of the bond having a maturity of 5 years? Assume that the bond is fairly priced at the moment at ₹ 1,000.
14. M/s Transindia Ltd. is contemplating calling ₹ 3 crores of 30 years, ₹ 1,000 bond issued 5 years ago with a coupon interest rate of 14 per cent. The bonds have a call price of ₹ 1,140 and had initially collected proceeds of ₹ 2.91 crores due to a discount of ₹ 30 per bond. The initial floating cost was ₹ 3,60,000. The Company intends to sell ₹ 3 crores of 12 per cent coupon rate, 25 years bonds to raise funds for retiring the old bonds. It proposes to sell the new bonds at their par value of ₹ 1,000. The estimated floatation cost is ₹ 4,00,000. The company is paying 40% tax and its after tax cost of debt is 8 per cent. As the new bonds must first be sold and their proceeds, then used to retire old bonds, the company expects a two months period of overlapping interest during which interest must be paid on both the old and new bonds. What is the feasibility of refunding bonds?

Indian Capital Market

15. XYZ Limited borrows £ 15 Million of six months LIBOR + 10.00% for a period of 24 months. The company anticipates a rise in LIBOR, hence it proposes to buy a Cap Option from its Bankers at the strike rate of 8.00%. The lump sum premium is 1.00% for the entire reset periods and the fixed rate of interest is 7.00% per annum. The actual position of LIBOR during the forthcoming reset period is as under:

Reset Period	LIBOR
1	9.00%
2	9.50%
3	10.00%

You are required to show how far interest rate risk is hedged through Cap Option.

For calculation, work out figures at each stage up to four decimal points and amount nearest to £. It should be part of working notes.

16. Suppose a dealer quotes 'All-in-cost' for a generic swap at 8% against six month LIBOR flat. If the notional principal amount of swap is ₹ 5,00,000.
- Calculate semi-annual fixed payment.
 - Find the first floating rate payment for (i) above if the six month period from the effective date of swap to the settlement date comprises 181 days and that the corresponding LIBOR was 6% on the effective date of swap.

In (ii) above, if the settlement is on 'Net' basis, how much the fixed rate payer would pay to the floating rate payer?

Generic swap is based on 30/360 days basis.

17. A trader is having in its portfolio shares worth ₹ 85 lakhs at current price and cash ₹ 15 lakhs. The beta of share portfolio is 1.6. After 3 months the price of shares dropped by 3.2%.

Determine:

- Current portfolio beta
- Portfolio beta after 3 months if the trader on current date goes for long position on ₹ 100 lakhs Nifty futures.

Capital Budgeting with Risk

18. A & Co. is contemplating whether to replace an existing machine or to spend money on overhauling it. A & Co. currently pays no taxes. The replacement machine costs ₹ 90,000 now and requires maintenance of ₹ 10,000 at the end of every year for eight years. At the end of eight years it would have a salvage value of ₹ 20,000 and would be sold. The

existing machine requires increasing amounts of maintenance each year and its salvage value falls each year as follows:

Year	Maintenance (₹)	Salvage (₹)
Present	0	40,000
1	10,000	25,000
2	20,000	15,000
3	30,000	10,000
4	40,000	0

The opportunity cost of capital for A & Co. is 15%.

Required:

When should the company replace the machine?

(Notes: Present value of an annuity of ₹ 1 per period for 8 years at interest rate of 15% : 4.4873; present value of ₹ 1 to be received after 8 years at interest rate of 15% : 0.3269).

19. XYZ Ltd. is planning to procure a machine at an investment of ₹ 40 lakhs. The expected cash flow after tax for next three years is as follows:

₹ (in lakh)

Year – 1		Year – 2		Year - 3	
CFAT	Probability	CFAT	Probability	CFAT	Probability
12	.1	12	.1	18	.2
15	.2	18	.3	20	.5
18	.4	30	.4	32	.2
32	.3	40	.2	45	.1

The Company wishes to consider all possible risks factors relating to the machine.

The Company wants to know:

- (i) the expected NPV of this proposal assuming independent probability distribution with 7% risk free rate of interest.
 - (ii) the possible deviations on expected values.
20. Write a short note on
- (a) Project Appraisal in inflationary conditions
 - (b) Bought Out Deals (BODs)
 - (c) Financial Engineering

- (d) Call Money in Context of Money Market
 (e) Nostro, Vostro and Lora Account

SUGGESTED ANSWERS / HINTS

1. β ungereared for the proxy company = $1.1 \times 4 / [4 + (1 - 0.3)] = 0.9362$

$$0.9362 = \beta_{\text{Gereared of XYZ}} \times 2 / [2 + (1 - 0.3)]$$

$$\beta_{\text{Gereared of XYZ}} = 1.264$$

$$0.9362 = \beta_{\text{Gereared of ABC}} \times 3 / [3 + (1 - 0.3)]$$

$$\beta_{\text{Gereared of ABC}} = 1.155$$

	XYZ	ABC	Total
No. of Share (1)	$\frac{\text{₹}1025 \text{ crore}}{\text{₹}10}$ = 102.50 crore	$\frac{\text{₹}106 \text{ crore}}{\text{₹}10}$ = 10.60 crore	--
Current share price (2)	₹ 129.60	₹ 55	--
Market Values (3) = (1) × (2)	₹ 13284 crore	₹ 583 crore	₹ 13867 crore
Equity beta (4)	1.264	1.155	
Market Values × Equity beta	₹ 16790.976 crore	₹ 673.365 crore	₹ 17464.341 crore

$$\text{Portfolio Beta after Merger} = \frac{\text{₹}17464.341 \text{ crore}}{\text{₹}13867 \text{ crore}} = 1.26$$

2. The number of contracts needed $(1,00,000/0.02118)/4,72,000 = 10$
 Initial margin payable $(10 \times \text{₹}15,000) = \text{₹}1,50,000$
 Variation Margin to settle the Future Contract
 $[(0.02134 - 0.02118) \times 10 \times 472000]/0.02133 = \text{₹} 35,406$
 or $(0.00016 \times 10 \times 472000)/0.02133 = 755.20/0.02133$
3. In the given case, the exchange rates are indirect. These can be converted into direct rates as follows:

Spot rate

$$\text{GBP} = \frac{1}{\text{USD } 1.5617} \quad \text{to} \quad \frac{1}{\text{USD } 1.5673}$$

$$\text{USD} = \text{GBP } 0.64033 \quad - \quad \text{GBP } 0.63804$$

6 months' forward rate

$$\text{GBP} = \frac{1}{\text{USD } 1.5455} \quad \text{to} \quad \frac{1}{\text{USD } 1.5609}$$

$$\text{USD} = \text{GBP } 0.64704 \quad - \quad \text{GBP } 0.64066$$

Payoff in 3 alternatives

i. Forward Cover

Amount payable	USD 3,64,897
Forward rate	GBP 0.64704
Payable in GBP	GBP 2,36,103

ii. Money market Cover

Amount payable	USD 3,64,897
PV @ 4.5% for 6 months i.e. $\frac{1}{1.0225} = 0.9779951$	USD 3,56,867
Spot rate purchase	GBP 0.64033
Borrow GBP 3,56,867 x 0.64033	GBP 2,28,513
Interest for 6 months @ 7 %	7,998
	<u>-</u>
Payable after 6 months	<u>GBP 2,36,511</u>

iii. Currency options

Amount payable	USD 3,64,897
Unit in Options contract	USD 21,250
Number of contracts USD 3,64,897 / USD 21,250	17.17
Exposure covered USD 21,250 x 17	USD 3,61,250
Exposure to be covered by Forward (USD 3,64,897 – USD 3,61,250)	USD 3,647
Options premium 17 x USD 21,250 x 0.036	GBP 13,005
Total payment in currency option	

Payment under option (17 x 21,250 x 0.58825)	GBP 2,12,505
Premium payable	GBP 13,005
Payment for forward cover (USD 3,647 x 0.64704)	<u>GBP 2,360</u>
	<u>GBP 2,27,870</u>

Thus total payment in:

- | | |
|-----------------------|--------------|
| (i) Forward Cover | 2,36,103 GBP |
| (ii) Money Market | 2,36,511 GBP |
| (iii) Currency Option | 2,27,870 GBP |

The company should take currency option for hedging the risk.

4.

Particulars	Adjustment Value ₹ lakhs
Equity Shares	63.920
Cash in hand (5.000 – 2.240)	2.760
Bonds and debentures not listed	2.125
Bonds and debentures listed	7.500
Dividends accrued	1.950
Fixed income securities	9.409
Sub total assets (A)	87.664
Amount payable on shares	13.54
Expenditure accrued	1.76
Sub total liabilities (B)	15.30
Net Assets Value (A) – (B)	72.364
No. of units	2,75,000
Net Assets Value per unit (₹ 72.364 lakhs / 2,75,000)	₹ 26.3142

5. Working Notes:

- Present Trade receivables period = $365 \times 3,500 / 21,300 = 60$ days
- Reduction in trade receivables under factoring arrangement

	₹
Current trade receivables	3,500,000
Revised trade receivables (₹ 21,300,000 x 35/365)	2,042,466
Reduction in trade receivables	1,457,534

Calculation of benefit of with-recourse offer

As the XYZ's offer is with recourse, ABC will gain the benefit of bad debts reducing from 0.9% of turnover to 0.6% of turnover.

	₹
Finance cost saving = $1,457,534 \times 0.07$	102,027
Administration cost saving	40,000
Bad debt saving = $21,300,000 \times (0.009 - 0.006)$	63,900
Total saving	205,927
Additional interest on advance $(2,042,466 \times 0.8 \times 0.02)$	32,680
Net benefit before factor fee (A)	173,247
With-recourse factor fee = $21,300,000 \times 0.0075$ (B)	159,750
Net benefit of with-recourse offer (A) – (B)	13,497

Calculation of benefit of non-recourse offer

As the offer is without recourse, the bad debts of ABC will reduce to zero, as these will be carried by the XYZ, and so the company will gain a further benefit of 0.6% of turnover.

	₹
Net benefit before with-recourse factor fee (A) as above	173,247
Non-recourse factor fee ₹ $21,300,000 \times 0.0125$ (D)	266,250
Net cost before adjusting for bad debts (E) = (D) – (A)	93,003
Remaining bad debts eliminated = $21,300,000 \times 0.006$ (F)	127,800
Net benefit of non-recourse offer (F) – (E)	34,797

The XYZ's offer is financially acceptable on a with-recourse basis, giving a net benefit of ₹ 13,497. On a non-recourse basis, the XYZ's offer is not financially acceptable, giving a net loss of ₹ 93,003, if the elimination of bad debts is ignored.

The difference between the two factor fees (₹ 106,500 or 0.5% of sales), which represents insurance against the risk of bad debts, is less than the remaining bad debts (₹ 127,800 or 0.6% of sales), which will be eliminated under non-recourse factoring.

When this elimination of bad debts is considered, the non-recourse offer from the factor is financially more attractive than the with-recourse offer.

6. (a) Conversion Value of Debenture
 = Market Price of one Equity Share X Conversion Ratio
 = ₹ 25 X 30 = ₹ 750
- (b) Market Conversion Price

$$= \frac{\text{Market Price of Convertible Debenture}}{\text{Conversion Ratio}} = \frac{\text{₹ 900}}{30} = \text{₹ 30}$$
- (c) Conversion Premium per share
 Market Conversion Price – Market Price of Equity Share
 = ₹ 30 – ₹ 25 = ₹ 5
- (d) Ratio of Conversion Premium

$$\frac{\text{Conversion premium per share}}{\text{Market Price of Equity Share}} = \frac{\text{₹ 5}}{\text{₹ 25}} = 20\%$$
- (e) Premium over Straight Value of Debenture

$$\frac{\text{Market Price of Convertible Bond}}{\text{Straight Value of Bond}} - 1 = \frac{\text{₹ 900}}{\text{₹ 700}} - 1 = 28.6\%$$
- (f) Favourable income differential per share

$$\frac{\text{Coupon Interest from Debenture} - \text{Conversion Ratio} \times \text{Dividend Per Share}}{\text{Conversion Ratio}}$$

$$\frac{\text{₹ 85} - 30 \times \text{₹ 1}}{30} = \text{₹ 1.833}$$
- (g) Premium pay back period

$$\frac{\text{Conversion premium per share}}{\text{Favourable Income Differential Per Share}} = \frac{\text{₹ 5}}{\text{₹ 1.833}} = 2.73 \text{ years}$$
7. Net Issue Size = \$15 million

$$\text{Gross Issue} = \frac{\$15 \text{ million}}{0.98} = \$15.306 \text{ million}$$

Issue Price per GDR in ₹ (300 x 3 x 90%)	₹ 810
Issue Price per GDR in \$ (₹ 810/ ₹ 60)	\$13.50
Dividend Per GDR (D ₁) = ₹ 2* x 3 =	₹ 6

* Assumed to be on based on Face Value of ₹ 10 each share.
 Net Proceeds Per GDR = ₹ 810 x 0.98 = ₹ 793.80

(a) Number of GDR to be issued

$$\frac{\$15.306 \text{ million}}{\$13.50} = 1.1338 \text{ million}$$

(b) Cost of GDR to Odessa Ltd.

$$k_e = \frac{6.00}{793.80} + 0.20 = 20.76\%$$

8. Cash outflow under borrow and buy option

Working Notes:

a. Calculation of Interest Amount

Year	Repayment of Principal (₹)	Principal Outstanding (₹)	Interest (₹)	Closing Balance (₹)
1	1,00,000	5,00,000	75,000	4,00,000
2	1,00,000	4,00,000	60,000	3,00,000
3	1,00,000	3,00,000	45,000	2,00,000
4	1,00,000	2,00,000	30,000	1,00,000
5	1,00,000	1,00,000	15,000	-

b. Depreciation Schedule

Year	Opening Balance (₹)	Depreciation (₹)	Closing Balance (₹)
1	5,00,000	1,00,000	4,00,000
2	4,00,000	80,000	3,20,000
3	3,20,000	64,000	2,56,000
4	2,56,000	51,200	2,04,800
5	2,04,800	40,960	1,63,840

c. Tax Benefit on Depreciation and Interest

Year	Interest (₹)	Depreciation (₹)	Total (₹)	Tax Benefit @ 30% (₹)
1	75,000	1,00,000	1,75,000	52,500
2	60,000	80,000	1,40,000	42,000
3	45,000	64,000	1,09,000	32,700
4	30,000	51,200	81,200	24,360
5	15,000	40,960	55,960	16,788

PV of Cash Outflow in Borrow and Buying Option

Year	Cash outflow (₹)	Tax Benefit (₹)	Net Cash Outflow (₹)	PVF@15%	PV (₹)
1	1,75,000	52,500	1,22,500	0.8696	1,06,526
2	1,60,000	42,000	1,18,000	0.7562	89,232
3	1,45,000	32,700	1,12,300	0.6576	73,848
4	1,30,000	24,360	1,05,640	0.5718	60,405
5	1,15,000	16,788	98,212	0.4972	48,831
5	(1,63,840)		(1,63,840)	0.4972	(81,461)
					2,97,381

Cash outflow under borrow and lease option

Cash payment to Lessor/Tax Benefits on Lease Payment (Annual Lease Rent = ₹ 1,00,000)

Year	Net Lease Rent (₹)	Security Deposit (₹)	Tax Benefit on Gross Lease Rent (₹)	Net Cash Outflow (₹)
1	60,000*		30,000	30,000
2	60,000		30,000	30,000
3	60,000		30,000	30,000
4	60,000		30,000	30,000
5	60,000	(3,00,000)	30,000	(2,70,000)

* ₹ 1,00,000 – ₹ 40,000 = ₹ 60,000

Cash payment to Bank/ Tax Benefits on Interest Payment

Year	Principal Payment (₹)	Interest (₹)	Total (₹)	Tax Benefit on Interest (₹)	Net Outflow (₹)
1	40,000	75,000	1,15,000	22,500	92,500
2	40,000	69,000	1,09,000	20,700	88,300
3	40,000	63,000	1,03,000	18,900	84,100
4	40,000	57,000	97,000	17,100	79,900
5	3,40,000	51,000	3,91,000	15,300	3,75,700

PV of Cash Outflow in Borrow and Leasing Option

Year	Cash outflow to Bank(₹)	Cash Outflow under Lease (₹)	Total (₹)	PVF@15%	PV (₹)
1	92,500	30,000	1,22,500	0.8696	1,06,526
2	88,300	30,000	1,18,300	0.7562	89,458
3	84,100	30,000	1,14,100	0.6576	75,032
4	79,900	30,000	1,09,900	0.5718	62,841
5	3,75,700	(2,70,000)	1,05,700	0.4972	52,554
					3,86,411

Since PV of cash outflow is least in case of borrow and buying option it should be opted for.

9. Financial Analysis whether to set up the manufacturing units in India or not may be carried using NPV technique as follows:

I. Incremental Cash Outflows

	\$ Million
Cost of Plant and Machinery	500.00
Working Capital	50.00
Release of existing Working Capital	(15.00)
	535.00

II. Incremental Cash Inflow after Tax (CFAT)

(a) Generated by investment in India for 5 years

	\$ Million
Sales Revenue (5 Million x \$80)	400.00
Less: Costs	
Variable Cost (5 Million x \$20)	100.00
Fixed Cost	30.00
Depreciation (\$500 Million/5)	100.00
EBIT	170.00
Taxes@35%	59.50
EAT	110.50

Add: Depreciation	100.00
CFAT (1-5 years)	210.50
Cash flow at the end of the 5 years (Release of Working Capital)	35.00

(b) Cash generation by exports

	\$ Million
Sales Revenue (1.5 Million x \$80)	120.00
Less: Variable Cost (1.5 Million x \$40)	60.00
Contribution before tax	60.00
Tax@35%	21.00
CFAT (1-5 years)	39.00

(c) Additional CFAT attributable to Foreign Investment

	\$ Million
Through setting up subsidiary in India	210.50
Through Exports in India	39.00
CFAT (1-5 years)	171.50

III. Determination of NPV

Year	CFAT (\$ Million)	PVF@12%	PV(\$ Million)
1-5	171.50	3.6048	618.2232
5	35	0.5674	19.8590
			638.0822
Less: Initial Outflow			535.0000
			103.0822

Since NPV is positive the proposal should be accepted.

10. With 20% investment in each MF Portfolio Beta is the weighted average of the Betas of various securities calculated as below:

(i)

Investment	Beta (β)	Investment (₹ Lacs)	Weighted Investment
A	1.6	20	32
B	1.0	20	20
C	0.9	20	18

D	2.0	20	40
E	0.6	<u>20</u>	<u>12</u>
		<u>100</u>	<u>122</u>
Weighted Beta (β) = 1.22			

(ii) With varied percentages of investments portfolio beta is calculated as follows:

Investment	Beta (β)	Investment (₹ Lacs)	Weighted Investment
A	1.6	15	24
B	1.0	30	30
C	0.9	15	13.5
D	2.0	30	60
E	0.6	<u>10</u>	<u>6</u>
		<u>100</u>	<u>133.5</u>
Weighted Beta (β) = 1.335			

(iii) Expected return of the portfolio with pattern of investment as in case (i)

$$= 12\% \times 1.22 \text{ i.e. } 14.64\%$$

Expected Return with pattern of investment as in case (ii) = $12\% \times 1.335$ i.e., 16.02%.

11.

Security	No. of shares (1)	Market Price of Per Share (2)	(1) × (2)	% to total (w)	β (x)	wx
VSL	10000	50	500000	0.4167	0.9	0.375
CSL	5000	20	100000	0.0833	1	0.083
SML	8000	25	200000	0.1667	1.5	0.250
APL	2000	200	<u>400000</u>	0.3333	1.2	<u>0.400</u>
			<u>1200000</u>	1		<u>1.108</u>

Portfolio beta

1.108

(i) Required Beta

0.8

It should become (0.8 / 1.108)

72.2 % of present portfolio

If ₹ 12,00,000 is 72.20%, the total portfolio should be

₹ 12,00,000 × 100/72.20 or

₹ 16,62,050

Additional investment in zero risk should be (₹ 16,62,050 – ₹ 12,00,000) = ₹ 4,62,050

Revised Portfolio will be

- (ii) To increase Beta to 1.2
 It should become $1.2 / 1.108$ 108.30% of present beta
 If 1200000 is 108.30%, the total portfolio should be
 $1200000 \times 100/108.30$ or 1108033 say 1108030
 Additional investment should be (-) 91967 i.e. Divest ₹ 91970 of Risk Free Asset

Revised Portfolio will be

Security	No. of shares (1)	Market Price of Per Share (2)	(1) × (2)	% to total (w)	β (x)	wx
VSL	10000	50	500000	0.4513	0.9	0.406
CSL	5000	20	100000	0.0903	1	0.090
SML	8000	25	200000	0.1805	1.5	0.271
APL	2000	200	400000	0.3610	1.2	0.433
Risk free asset	-9197	10	-91970	-0.0830	0	0
			1108030	1		1.20

Portfolio beta

1.20

$$12. \beta_p = \sum_{i=1}^4 x_i \beta_i$$

$$= 1.60 \times 0.25 + 1.15 \times 0.30 + 1.40 \times 0.25 + 1.00 \times 0.20$$

$$= 0.4 + 0.345 + 0.35 + 0.20 = 1.295$$

The Standard Deviation (Risk) of the portfolio is

$$= [(1.295)^2(18)^2 + (0.25)^2(7)^2 + (0.30)^2(11)^2 + (0.25)^2(3)^2 + (0.20)^2(9)^2]$$

$$= [543.36 + 3.0625 + 10.89 + 0.5625 + 3.24] = [561.115]^{1/2} = 23.69\%$$

Alternative Answer

The variance of Security's Return

$$\sigma^2 = \beta_i^2 \sigma_m^2 + \sigma_{ei}^2$$

Accordingly variance of various securities

		σ^2	Weight(w)	$\sigma^2 X w$
L	$(1.60)^2 (18)^2 + 7^2 =$	878.44	0.25	219.61
M	$(1.15)^2 (18)^2 + 11^2 =$	549.49	0.30	164.85

N	$(1.40)^2 (18)^2 + 3^2 =$	644.04	0.25	161.01
K	$(1.00)^2 (18)^2 + 9^2 =$	405.00	0.20	81
	Variance			<u>626.47</u>

$$SD = \sqrt{626.47} = 25.03$$

13. (i) Implicit rates for year 2 and year 3

$$\text{For year 2 } f_2 = \frac{(1+r_2)^2}{1+r_1} - 1$$

$$= \frac{(1.1125)^2}{(1.1050)} - 1 = 12\%$$

$$\text{For year 3 } f_3 = \frac{(1+r_3)^3}{(1+r_1)(1+f_2)} - 1$$

$$= \frac{(1.12)^3}{(1.1050)(1.12)} - 1 = \frac{1.404928}{1.2376} - 1 = 13.52\%$$

(ii) If fairly priced at ₹ 1000 and rate of interest increases to 12.5% the percentage charge will be as follows:

$$\text{Price} = \frac{1000(1.12)^5}{(1.125)^5} = \frac{1762.34168}{1.8020}$$

$$= 977.99 \text{ or } ₹ 987$$

$$\% \text{ charge} = \frac{1000 - 978}{1000} \times 100 = \frac{22}{1000} \times 100$$

$$= 2.2\%$$

14. NPV for bond refunding

	₹
PV of annual cash flow savings (W.N. 2)	
$(3,49,600 \times PVIFA 8\%, 25)$ i.e. 10.675	37,31,980
Less: Initial investment (W.N. 1)	<u>29,20,000</u>
NPV	<u>8,11,980</u>

Recommendation: Refunding of bonds is recommended as NPV is positive.

Working Notes:**(1) Initial investment:**

(a) Call premium		
Before tax $(1,140 - 1,000) \times 30,000$	42,00,000	
Less tax @ 40%	<u>16,80,000</u>	
After tax cost of call prem.		25,20,000
(b) Floatation cost		4,00,000
(c) Overlapping interest		
Before tax $(0.14 \times 2/12 \times 3 \text{ crores})$	7,00,000	
Less tax @ 40%	<u>2,80,000</u>	4,20,000
(d) Tax saving on unamortised discount on old bond $25/30 \times 9,00,000 \times 0.4$		(3,00,000)
(e) Tax savings from unamortised floatation Cost of old bond $25/30 \times 3,60,000 \times 0.4$		<u>(1,20,000)</u>
		<u>29,20,000</u>

(2) Annual cash flow savings:

(a) Old bond		
(i) Interest cost $(0.14 \times 3 \text{ crores})$	42,00,000	
Less tax @ 40%	<u>16,80,000</u>	25,20,000
(ii) Tax savings from amortisation of discount $9,00,000/30 \times 0.4$		(12,000)
(iii) Tax savings from amortisation of floatation cost $3,60,000/30 \times 0.4$		<u>(4,800)</u>
Annual after tax cost payment under old Bond (A)		<u>25,03,200</u>
(b) New bond		
(i) Interest cost before tax $(0.12 \times 3 \text{ crores})$	36,00,000	
Less tax @ 40%	<u>14,40,000</u>	
After tax interest		21,60,000
(ii) Tax savings from amortisation of floatation cost $(0.4 \times 4,00,000/25)$		<u>(6,400)</u>
Annual after tax payment under new Bond (B)		<u>21,53,600</u>
Annual Cash Flow Saving (A) – (B)		<u>3,49,600</u>

15. First of all we shall calculate premium payable to bank as follows:

$$P = \frac{rp}{\left[(1+i) - \frac{1}{i \times (1+i)^t} \right]} \times A \text{ or } \frac{rp}{PVAF(3.5\%, 4)} \times A$$

Where

P = Premium

A = Principal Amount

rp = Rate of Premium

i = Fixed Rate of Interest

t = Time

$$= \frac{0.01}{\left[(1/0.035) - \frac{1}{0.035 \times 1.035^4} \right]} \times £15,000,000 \text{ or } \frac{0.01}{(0.966 + 0.933 + 0.901 + 0.871)} \times £15,000,000$$

$$= \frac{0.01}{\left[(28.5714) - \frac{1}{0.04016} \right]} \times £15,000,000 \text{ or } \frac{£150,000}{3.671} = £40,861$$

Please note above solution has been worked out on the basis of four decimal points at each stage.

Now we see the net payment received from bank

Reset Period	Additional interest due to rise in interest rate	Amount received from bank	Premium paid to bank	Net received from bank
1	£ 75,000	£ 75,000	£ 40,861	£34,139
2	£ 112,500	£ 112,500	£ 40,861	£71,639
3	£ 150,000	£ 150,000	£ 40,861	£109,139
TOTAL	£ 337,500	£ 337,500	£122,583	£ 214,917

Thus, from above it can be seen that interest rate risk amount of £ 337,500 reduced by £ 214,917 by using of Cap option.

Note: It may be possible that student may compute upto three decimal points or may use different basis. In such case their answer is likely to be different.

16. (i) Semi-annual fixed payment
= (N) (AIC) (Period)

Where N = Notional Principal amount = ₹5,00,000

AIC = All-in-cost = 8% = 0.08

$$= 5,00,000 \times 0.08 \left(\frac{180}{360} \right)$$

$$= 5,00,000 \times 0.08 (0.5)$$

$$= 5,00,000 \times 0.04 = ₹20,000/-$$

(ii) Floating Rate Payment

$$= N (\text{LIBOR}) \left(\frac{dt}{360} \right)$$

$$= 5,00,000 \times 0.06 \times \frac{181}{360}$$

$$= 5,00,000 \times 0.06 (0.503) \text{ or } 5,00,000 \times 0.06 (0.502777)$$

$$= 5,00,000 \times 0.03018 \text{ or } 0.30166 = ₹15,090 \text{ or } 15,083$$

Both are correct

(iii) Net Amount

$$= (i) - (ii)$$

$$= ₹20,000 - ₹15,090 = ₹4,910$$

$$\text{or } = ₹20,000 - ₹15,083 = ₹4,917$$

17. (i) **Current portfolio**

$$\text{Current Beta for share} = 1.6$$

$$\text{Beta for cash} = 0$$

$$\text{Current portfolio beta} = 0.85 \times 1.6 + 0 \times 0.15 = 1.36$$

(ii) **Portfolio beta after 3 months:**

$$\text{Beta for portfolio of shares} = \frac{\text{Change in value of portfolio of share}}{\text{Change in value of market portfolio (Index)}}$$

$$1.6 = \frac{0.032}{\text{Change in value of market portfolio (Index)}}$$

$$\text{Change in value of market portfolio (Index)} = (0.032 / 1.6) \times 100 = 2\%$$

Position taken on 100 lakh Nifty futures : Long

$$\text{Value of index after 3 months} = ₹ 100 \text{ lakh} \times (100 - 0.02)$$

	= ₹ 98 lakh
Mark-to-market paid	= ₹ 2 lakh
Cash balance after payment of mark-to-market	= ₹ 13 lakh
Value of portfolio after 3 months	= ₹85 lakh x (1 - 0.032) + ₹13 lakh
	= ₹95.28 lakh
Change in value of portfolio	= $\frac{₹100 \text{ lakh} - ₹95.28 \text{ lakh}}{₹100 \text{ lakh}} = 4.72\%$
Portfolio beta	= 0.0472/0.02 = 2.36

18.

A & Co.

Equivalent cost of (EAC) of new machine

		₹
(i)	Cost of new machine now	90,000
	Add: PV of annual repairs @ ₹ 10,000 per annum for 8 years (₹ 10,000 × 4.4873)	<u>44,873</u>
		1,34,873
	Less: PV of salvage value at the end of 8 years (₹ 20,000 × 0.3269)	<u>6,538</u>
		<u>1,28,335</u>
	Equivalent annual cost (EAC) (₹ 1,28,335/4.4873)	<u>28,600</u>

PV of cost of replacing the old machine in each of 4 years with new machine

Scenario	Year	Cash Flow	PV @ 15%	PV
		(₹)		(₹)
Replace Immediately	0	(28,600)	1.00	(28,600)
		40,000	1.00	<u>40,000</u>
				<u>11,400</u>
Replace in one year	1	(28,600)	0.870	(24,882)
	1	(10,000)	0.870	(8,700)
	1	25,000	0.870	<u>21,750</u>
				<u>(11,832)</u>
Replace in two years	1	(10,000)	0.870	(8,700)
	2	(28,600)	0.756	(21,622)

Replace in three years	2	(20,000)	0.756	(15,120)
	2	15,000	0.756	<u>11,340</u>
				<u>(34,102)</u>
	1	(10,000)	0.870	(8,700)
	2	(20,000)	0.756	(15,120)
	3	(28,600)	0.658	(18,819)
	3	(30,000)	0.658	(19,740)
	3	10,000	0.658	<u>6,580</u>
				<u>(55,799)</u>
Replace in four years	1	(10,000)	0.870	(8,700)
	2	(20,000)	0.756	(15,120)
	3	(30,000)	0.658	(19,740)
	4	(28,600)	0.572	(16,359)
	4	(40,000)	0.572	<u>(22,880)</u>
				<u>(82,799)</u>

Advice: The company should replace the old machine immediately because the PV of cost of replacing the old machine with new machine is least.

Alternative Solution

Scenario	Year	Cash Outflow	PV @ 15%	PV
Replace immediately	0	(40,000)	1	(40,000)
	1 to 4	28,600	2.856	81,682
				41,682
Replace after 1 year	1	10,000	0.870	8,696
	1	(25,000)	0.870	(21,739)
	2 to 4	28,600	1.986	56,800
				43,757
Replace after 2 years	1	10,000	0.870	8,700
	2	20,000	0.756	15,120
	2	(15,000)	0.756	(11,340)
	3 and 4	28,600	1.230	35,178
				47,658

Replace after 3 years	1	10,000	0.870	8,700
	2	20,000	0.756	15,120
	3	30,000	0.658	19,740
	3	(10,000)	0.658	(6,580)
	4	28,600	0.572	16,359
				53,339
Replace after 4 years	1	10,000	0.870	8,700
	2	20,000	0.756	15,120
	3	30,000	0.658	19,740
	4	40,000	0.572	22,880
				66,440

Advice: The company should replace the old machine immediately because the PV of cost of replacing the old machine with new machine is least.

19. (i) Expected NPV

(₹ in lakhs)

Year I			Year II			Year III		
CFAT	P	CF×P	CFAT	P	CF×P	CFAT	P	CF×P
12	0.1	1.2	12	0.1	1.2	18	0.2	3.6
15	0.2	3.0	18	0.3	5.4	20	0.5	10
18	0.4	7.2	30	0.4	12	32	0.2	6.4
32	0.3	<u>9.6</u>	40	0.2	<u>8</u>	45	0.1	<u>4.5</u>
	$\bar{x}$ or $\overline{CF}$	<u>21.</u>		$\bar{x}$ or $\overline{CF}$	<u>26.60</u>			$\bar{x}$ or $\overline{CF}$ <u>24.50</u>

NPV (₹ in lakhs)	PV factor @ 7%	Total PV (₹ in lakhs)
21	0.935	19.635
26.60	0.873	23.222
24.50	0.816	<u>19.992</u>
	PV of cash inflow	62.849
	Less: Cash outflow	<u>40.000</u>
	NPV	<u>22.849</u>

(ii) Possible deviation in the expected value

Year I

$X - \bar{X}$	$X - \bar{X}$	$(X - \bar{X})^2$	P_1	$(X - \bar{X})^2 P_1$
12 - 21	-9	81	0.1	8.10
15 - 21	-6	36	0.2	7.2
18 - 21	-3	9	0.4	3.6
32 - 21	11	121	0.3	<u>36.30</u>
				<u>55.20</u>

$$\sigma_1 = \sqrt{55.20} = 7.43$$

Year II

$X - \bar{X}$	$X - \bar{X}$	$(X - \bar{X})^2$	P_2	$(X - \bar{X})^2 \times P_2$
12-26.60	-14.60	213.16	0.1	21.32
18-26.60	-8.60	73.96	0.3	22.19
30-26.60	3.40	11.56	0.4	4.62
40-26.60	13.40	179.56	0.2	<u>35.91</u>
				<u>84.04</u>

$$\sigma_2 = \sqrt{84.04} = 9.17$$

Year III

$X - \bar{X}$	$X - \bar{X}$	$(X - \bar{X})^2$	P_3	$(X - \bar{X})^2 \times P_3$
18-24.50	-6.50	42.25	0.2	8.45
20-24.50	-4.50	20.25	0.5	10.13
32-24.50	7.50	56.25	0.2	11.25
45-24.50	20.50	420.25	0.1	<u>42.03</u>
				<u>71.86</u>

$$\sigma_3 = \sqrt{71.86} = 8.48$$

Standard deviation about the expected value:

$$\sqrt{\frac{55.20}{(1.07)^2} + \frac{84.04}{(1.07)^4} + \frac{71.86}{(1.07)^6}} = 12.6574$$

20. (a) Under conditions of inflation, the project cost estimates that are relevant for a future date will suffer escalation. Inflationary conditions will tend to initiate the

measurement of future cash flows. Either of the following two approaches may be used while appraising projects under such conditions:

- (i) Adjust each year's cash flows to an inflation index, recognising selling price increases and cost increases annually; or
- (ii) Adjust the 'Acceptance Rate' (cut-off) suitably retaining cash flow projections at current price levels.

An example of approach (ii) above can be as follows:

Normal Acceptance Rate	:	15.0%
Expected Annual Inflation	:	5.0%
Adjusted Discount Rate	:	15.0×1.05 or 15.75%

It must be noted that measurement of inflation has no standard approach nor is easy. This makes the job of appraisal a difficult one under such conditions.

- (b) It is a new method of offering equity shares, debentures etc., to the public. In this method, instead of dealing directly with the public, a company offers the shares/debentures through a sponsor. The sponsor may be a commercial bank, merchant banker, an institution or an individual. It is a type of wholesale of equities by a company. A company allots shares to a sponsor at an agreed price between the company and sponsor. The sponsor then passes the consideration money to the company and in turn gets the shares duly transferred to him. After a specified period as agreed between the company and sponsor, the shares are issued to the public by the sponsor with a premium. After the public offering, the sponsor gets the shares listed in one or more stock exchanges. The holding cost of such shares by the sponsor may be reimbursed by the company or the sponsor may get the profit by issue of shares to the public at premium.

Thus, it enables the company to raise the funds easily and immediately. As per SEBI guidelines, no listed company can go for BOD. A privately held company or an unlisted company can only go for BOD. A small or medium size company which needs money urgently chooses to BOD. It is a low cost method of raising funds. The cost of public issue is around 8% in India. But this method lacks transparency. There will be scope for misuse also. Besides this, it is expensive like the public issue method. One of the most serious short coming of this method is that the securities are sold to the investing public usually at a premium. The margin thus between the amount received by the company and the price paid by the public does not become additional funds of the company, but it is pocketed by the issuing houses or the existing shareholders.

- (c) "Financial Engineering" involves the design, development and implementation of innovative financial instruments and processes and the formulation of creative solutions and problems in finance. Financial engineering lies in innovation and

creativity to promote market efficiency. It involves construction of innovative asset-liability structures using a combination of basic instruments so as to obtain hybrid instruments which may either provide a risk-return configuration otherwise unviable or result in gain by heading efficiently, possibly by creating an arbitrage opportunity. It is of great help in corporate finance, investment management, trading activities and risk management.

Over the years, Financial managers have been coping up with the challenges of changing situations. Different new techniques of financial analysis and new financial instruments have been developed. The process that seeks to adopt existing financial instruments and develop new ones so as to enable financial market participants to cope more effectively with changing conditions is known as financial engineering.

In recent years, the rapidity with which corporate finance and investment finance have changed in practice has given birth to new area of study known as financial engineering. It involves use of complex mathematical modelling and high speed computer solutions. Financial engineering includes all this. It also involves any moral twist to an existing idea and is not limited to corporate finance. It has been practiced by commercial banks in offering new and tailor made products to different types of customers. Financial engineering has been used in schemes of merger and acquisitions.

The term financial engineering is often used to refer to risk management.

- (d) The Call Money is a part of the money market where, day to day surplus funds, mostly of banks, are traded. Moreover, the call money market is most liquid of all short-term money market segments.

The maturity period of call loans vary from 1 to 14 days. The money that is lent for one day in call money market is also known as 'overnight money'. The interest paid on call loans are known as the call rates. The call rate is expected to freely reflect the day-to-day lack of funds. These rates vary from day-to-day and within the day, often from hour-to-hour. High rates indicate the tightness of liquidity in the financial system while low rates indicate an easy liquidity position in the market.

In India, call money is lent mainly to even out the short-term mismatches of assets and liabilities and to meet CRR requirement of banks. The short-term mismatches arise due to variation in maturities i.e. the deposits mobilized are deployed by the bank at a longer maturity to earn more returns and duration of withdrawal of deposits by customers vary. Thus, the banks borrow from call money markets to meet short-term maturity mismatches.

Moreover, the banks borrow from call money market to meet the cash Reserve Ratio (CRR) requirements that they should maintain with RBI every fortnight and is computed as a percentage of Net Demand and Time Liabilities (NDTL).

- (e) In interbank transactions, foreign exchange is transferred from one account to another account and from one centre to another centre. Therefore, the banks maintain three types of current accounts in order to facilitate quick transfer of funds in different currencies. These accounts are Nostro, Vostro and Loro accounts meaning “our”, “your” and “their”. A bank’s foreign currency account maintained by the bank in a foreign country and in the home currency of that country is known as Nostro Account or “our account with you”. For example, An Indian bank’s Swiss franc account with a bank in Switzerland. Vostro account is the local currency account maintained by a foreign bank/branch. It is also called “your account with us”. For example, Indian rupee account maintained by a bank in Switzerland with a bank in India. The Loro account is an account wherein a bank remits funds in foreign currency to another bank for credit to an account of a third bank.