Paper 14- Advanced Financial Management

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Full Marks: 100 **Time allowed: 3 Hours**

Sec-A
Answer Question No. 1 which is compulsory Carries 20 Marks.

1. (A) Each Question carries 2 Marks [7×2=14]

(i) What is the difference between Swap Point and Spread with respect to International currency market?

(ii) X purchased 182 days, Indian T-Bills of face value 35 lacs at an issue price of P. If the effective yield is 10% for the T-Bill, determine P.

(iii) If the risk free rate of interest (Rf) is 12% and expected return as Market portfolio (Rm) is 18%, ascertain expected return of the portfolio, if portfolio betas are 0.10.

(iv) Nile Ltd. issues 12% debentures of face value ₹100 each and realized ₹90 per debenture. The debentures are redeemable after 12 years at a premium of 10%. The Company is paying tax of 35%. What will be the Cost of Debt?

(v) The spot price of securities of X Ltd. is ₹160. With no dividend and no carrying cost, compute the theoretical forward price of the securities for 1 month. You may assume a risk free interest rate of 9% p.a.

(vi) It is given that Re/ £ quote is ₹94.30 – ₹95.20 and that ₹/ $ quote is ₹66.25 – ₹66.45. What would be the $/£ quote?

(vii) Following information is available regarding a mutual fund: Return 13 %, Risk (σ) 16, Beta (β) 0.90 Risk free rate 10. Compute the Sharpe Ratio.

1. (B) State whether each of the following is True (T) or False (F). Each question carries 1 mark: [6]

(i) A straddle is a strategy that is accomplished by holding an equal number of puts and calls with the same strike price and expiration dates.
(ii) Treasury Bills are not eligible for Repo transactions
(iii) Arbitrageurs are interested in making purchases and sales in different markets at different times to profit from the price discrepancy between the markets.
(iv) Forward market commission is formed to resolve the issues in futures market of shares and debentures
(v) Mutual funds and Hedge funds are one and the same.
(vi) Credit rating is a must for issue of commercial paper

Answers:

1. (A)

(i)Swap is difference between spot rate and forward rate. Spread is the difference between Bid rate and ask rate.

(ii) Yield = (F – P)/P × 365/182.
0.1P + 2.005P = 35,00,000 × 2.005
i.e., 2.105P = 7019230
P = 33,34,551

(iii) Under Capital Asset Pricing Model ,
Rp – Rf + (β × (Rm – Rf))
Hence, Rf = 12% (Risk free Rate of Interest)
Portfolio Beta 0.10
RM = Expected Return on market portfolio = 18%
Expected Return = 12% + 0.10 (18% - 12%) = 12.6%

(iv) Cost of Debt (Kd) = {12(1-0.35) + (110–90)/12}/(110 + 90)/2 = 7.8 + 1.67 = 9.47%

(v) Theoretical forward price of security of X Ltd. $[F_X] = S_X \times e^{rt} = ₹160 \times e^{0.09 \times 0.0833}$

$= ₹160 \times e^{0.0075}$
$= ₹160 \times 1.007528$
$= ₹161.20$

(vi) The rate for $/£ is to be calculated.

The formula is –

$$\$/£ = \frac{Re/£_{bid}}{Re/\$_{ask}} : \frac{Re/£_{ask}}{Re/\$_{bid}} = \frac{94.30}{66.45} : \frac{95.20}{66.25} = 1.4190 : 1.4370$$

Or 1.42: 1.44

(vii) Sharpe Ratio = $(R_P – R_f) / \sigma_P$

Where R_P = Return on portfolio

R_f = Risk free Return

σ_P = Standard Deviation of portfolio

=(13-10)/6 =0.5

1 (B).

(i) True
(ii) False
(iii) False
(iv) False
(v) False
(vi) True

Sec-B

Answer any 5 Questions from the following. Each Question carries 16 Marks.

2 (a) A company is considering a proposal of installing drying equipment. The equipment would involve a cash outlay of ₹6,00,000 and net working capital of ₹80,000. The expected life of the project is 5 years without any salvage value. Assume that the company is allowed to charge depreciation on straight line basis for income tax purpose. The estimated before-tax cash inflows (₹' 000) are given below:

Year-end	1	2	3	4	5

Before-tax cash inflows	**240**	**275**	**210**	**180**	**160**

The applicable income-tax rate of the company is 35%. If the company's cost of capital is 12%, calculate the equipment's discounted payback period, and net present value. [8]

2. (b) A firm has an investment proposal requiring an outlay of ₹1,92,000. The Investment proposal is expected to have two years economic life with no salvage value. In year- end 1, there is a 0.4 probability that cash inflow after tax will be ₹1,20,000 and 0.6 probability that cash inflow after tax will be ₹1,44,000. The probability assigned to cash in flows after tax for the 2nd

Year	Cash flow	Probability	Year	Cash flow	Probability
Year 1	**1,20,000**	**0.4**	**Year 1**	**1,44,000**	**0.6**
Year 2	**57,600**	**0.2**	**Year 2**	**96,000**	**0.4**
Year 2	**76,800**	**0.3**	**Year 2**	**1,20,000**	**0.5**
Year 2	**1,05,600**	**0.5**	**Year 2**	**1,44,000**	**0.1**

year-end are as follows:

(i) Construct a decision tree for the proposed Investment project and calculate the expected Net Present Value.
(ii) What is the most likely NPV of the project and what is the corresponding probability?
(iii) What is the probability of the project having a negative NPV? [8]

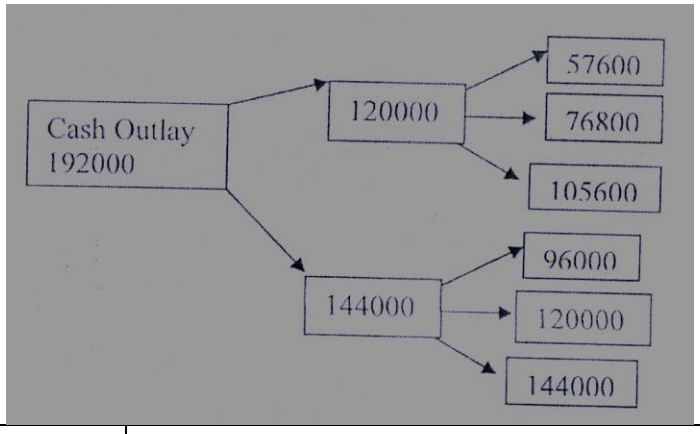
Answers:

2(a) Statement showing the calculation of present value of CFAT: [₹000]

Particulars	Year 1	Year 2	Year 3	Year 4	Year 5
Cash flows before tax	240	275	210	180	160
Less: Tax@35%	(84)	(96.25)	(73.5)	(63)	(56)
After tax cash flows	156	178.75	136.5	117	104
Add: tax saving on depreciation	42	42	42	42	42
Net cash flow after tax	198	220.75	178.5	159	146
Release of working capital	-	-	-	-	80
CFAT for last year	-	-	-	-	226
PVF at 12%	0.8929	0.7972	0.7118	0.6355	0.5674
PV	176.79	175.98	127.06	101.04	128.23
Cumulative discounted cash flows	176.79	352.77	479.83	580.87	709.10
NPV = ₹709.10 – ₹680 = ₹29.10 thousand					

Discounted payback period = 4 Years +(₹6,80,000 – 5,80,870) / ₹1,28,230 = 4.773 years

2(b) (i) The decision tree diagram is presented in chart identifying various paths and outcomes and computation of various paths/outcomes and NPV are presented in the following table.



Path No.	Joint Probability
1	0.08
2	012
3	0.20
4	0.24
5	0.30
6	0.06
	1.00

The Net Present Value (NPV) of each path at 8% discount rate is given below:

Path	Year 1 Cash flow ₹	Year 2 Cash flows ₹	Total Cash in Flow (PV) ₹	Cash Outflow ₹	NPV ₹
1	120000 × 0.9259 = 1,11,108	57,600 ×0 .8573 = 49,380	1,60,488	1,92,000	-31,512
2	1,11,108	76,800 × 0.8573 = 65,841	1,76,949	1,92,000	-15,051
3	1,11,108	1,05,600 × 0 .8573 = 90,531	2,01,639	1,92,000	9,639
4	1,44,000 × 0.9259 = 1,33,330	96,000 × 0.8573 = 82,301	2,15,631	1,92,000	23,631
5	1,33,330	1,20,000 × 0 .8573 = 1,02,876	2,36,206	1,92,000	44,206
6	1,33,330	1,44,000 × 0.8573 = 1,23,451	2,56,781	1,92,000	64,781

Statement Showing Expected Net Present value

Path	NPV (₹)	Joint probability	Expected NPV ₹
1	-31,512	0.08	-2,521
2	-15,051	0.12	-1,806
3	9,639	0.20	1,928
4	23,631	0.24	5,671
5	44,206	0.30	13,262
6	64,781	0.06	3,887
			20,421

(ii) The most likely NPV of the project = ₹44,206; Probability = 0.3 or 30%

(iii) The Probability of negative NPV of the project = Path (1) and (2) = 0.08 + 0.12 = 0.20 or 20%

3 (a) The following particulars are furnished about three Mutual Fund schemes P, Q and R:

Particulars	Scheme P	Scheme Q	Scheme R
Dividend Paid	₹1.75	-	₹1.3
Capital Appreciation	₹2.97	₹ 3.53	₹1.99
Opening NAv in Rs	₹ 32	₹ 27.15	₹ 23.5
Beta	1.46	1.1	1.4

Ascertain the Alpha of the three schemes and evaluate their performance, if Govt. of India Bonds carry an interest rate of 6.84% and the Nifty has increased by 12.13%. [8]

3. (b) A Fund made an issue of 20 Lakh units of 10 each on January 01, 2015. No entry load was charged. It made the following investments:

Particulars	₹
1,00,000Equity Shares of ₹100 each @ ₹160	160 Lakhs
7% GOI Securities	16 Lakhs
9% Debentures (unlisted)	10 Lakhs
10 % Debentures (Listed)	10 Lakhs

During the year operating expenses were ₹10 Lakhs and in addition to interest &dividend of ₹24 Lakhs was received. You are required to calculate net cash balance and NAV per unit at the end of the year. [8]

Answers:

3(a)

Particulars		Scheme P	Scheme Q	Scheme R
Dividend distributed	(₹)	1.75	-	1.30
Add: Capital appreciation	(₹)	2.97	3.53	1.99
Total return (A)	(₹)	4.72	3.53	3.29
Opening NAV (B)	(₹)	32.00	27.15	23.50
Actual return (A)/(B) = (C)		14.75 %	13.00%	14.00%
Beta (D)		1.46	1.10	1.40
Expected return under CAPM:				
$R_F+\beta_P(R_M-R_F)$ = (E)		14.56 %	12.66 %	14.25%
Jensen's Alpha = (C) - (E)		0.19 %	0.34 %	(-) 0.25%
Ranking		2	1	3

Evaluation: Schemes P and Q have outperformed the Market portfolio NIFTY, whereas Scheme R has under-performed in comparison with NIFTY.

3(b) Calculation of net cash balance at the end

Particulars	₹
Cash Balance opening (200 lakh – 196 lakh)	4,00,000
Dividend Received	24,00,000
Interest on 7% Govt. Securities	1,12,000
Interest on 9% Debenture	90,000
Interest on 10% Debenture	1,00,000
	31,02,000
Less: Operating Expenses	10,00,000
Net Cash Balance at the end	21,02,000

Particulars	₹
Cash	21,02,000
7% Govt. Securities at Par	16,00,000
1,00,000 Equity share @ 175 (160 + 15 Dividend)	1,75,00,000
9% Debenture at cost	10,00,000
10% Debenture at 90%	9,00,000
Total Assets	2,31,02,000
No. of Units	20,00,000

NAV Per Unit $\frac{2,31,02,000}{20,00,000}$ = ₹ 11.55

4 (a) An **investor has two portfolios known to be on minimum variance set for a population of three securities R, S and T, having below-mentioned weights:**

	WR	WS	WT
Portfolio X	**0.30**	**0.40**	**0.30**
Portfolio Y	**0.20**	**0.50**	**0.30**

Assume that there are no restrictions on short sales.
Required:

(i) What would be the weight for each stock for a portfolio constructed by investing ₹ 6,000 in Portfolio X and ₹ 4,000 in Portfolio Y?

(ii) Suppose the investor invests ₹ 5,000 out of ₹10,000 in Security R. How will he allocate the balance between Security S and T to ensure that his portfolio is on minimum variance set.

[8]

4. (b) From the following information pertaining to returns of Security MN and the market for the past 3 years, ascertain the value of Beta of Security MN:

Year	1	2	3
Security Return	**14%**	**15%**	**18%**
Market Return	**9%**	**12%**	**15%**

[8]

Answers:

4(a) (i) Investment in individual securities:

Security	Portfolio X (₹)	Portfolio Y (₹)	Total (₹)	Weight
R	6,000 x 0.30 = 1,800	4,000 x 0.20 = 800	2,600	2,600/10,000 = 0.26
S	6,000 x 0.40 = 2,400	4,000 x 0.50 = 2,000	4,400	4,400 / 10,000 = 0.44
T	6,000 x 0.30 = 1,800	4,000 x 0.30 = 1,200	3,000	3,000 / 10,000 = 0.30
	6,000	4,000	10,000	1.00

(ii) Investment strategy: Given, W_R = ₹ 5,000 / ₹10,000 = 0.50; and $W_R + W_S + W_T = 1$.

Hence, $W_T + W_s = 0.50$; We can establish a simple linear equation like-

$W_T = a + b\ W_s$; From the given data, we get-

$0.30 = a + b \times 0.40$ and $0.30 = a + b \times 0.50$; Solving, we get b = 0 ; a = 0.30

$W_T = 0.30 - 0 \times W_s$; or, $W_T = 0.30$; Hence, $W_s = 0.20$

Allocation of funds: R = ₹5,000; S = 0.20 × 10,000 = ₹2,000; and T = 0.30 x ₹10,000 = ₹ 3,000.

4(b) We know: $\beta = [\sum R_M R_D - n \bar{R}_M \bar{R}_D] / \sum[R_M^2 - n \bar{R}_M^2]$

Market return (R_M)	Return of security MN (R_D)	Product ($R_M \times R_D$)	R_M^2
9	14	126	81
12	15	180	144
15	18	270	225
36	47	576	450

n = 3 (numbers of pairs considered for Beta generally the no. of years)

$\sum R_M R_D$ = Aggregate of product = 576; $\sum R_M^2$ = Aggregate of return squares = 450

$\bar{R}_M$ = Mean of market return = [Aggregate of market return]/[No. of years] = 36/3 = 12.00

$\bar{R}_D$ = Mean of security return = [Aggregate of security MN returns]/[No. of years] = 47/3 = 15. 67

Hence, $\beta = [576 - (3 \times 12 \times 15.67)]/[450 - (3 \times 12^2)]$

$= (576 - 564)/(450 - 432) = 12/18 = 0.667.$

Alternative Answer:

$\beta = Cov_{MD}$ /Variance of Market (σ_M) = Cov_{MD}/ σ_M^2

Market return (R_M)	Return of security (R_D)	Deviation of R_M from $\bar{R}_M$ (D_M)	Deviation of security return R_D from $\bar{R}_D$ (D_D)	Variance of market (D_M^2)	Covariance (D_M x D_D)
9	14	9-12 = (3)	14.00-15.67 = (1.67)	9	5.01
12	15	12-12 = 0	15.00-15.67 = (0.67)	0	0
15	18	15-12 = 3	18.00-15.67 = 2.33	9	6.99
36	47			18	12.00

β = 12/18 = 0.667

5 (a) The following two-way quotes appear in the foreign exchange market –

	Spot Rate	1 month forward
INR /US$	**₹ 56/₹56.25**	**₹57 / ₹57.50**

Required:

1. **(1) How many US Dollars should a firm sell to get ₹30 Lakhs after two months?**
2. **(2) How many Rupees is the firm required to pay to obtain US $ 2,40,000 in the Spot market?**
3. **(3) Assume the firm has US $ 69,000 Current Account's earning interest. ROI on Rupee investment is 10% p.a. should the firm encash the US $ now 2 months later?**

[8]

5. (b) A Petrochemical Plant needs to process 20,000 barrels of oil in three months' time. To hedge against the rising price the plants needs to go long on the futures contract of crude oil. The spot price of crude oil is ₹ 2,925 per barrel, while futures contract expiring three months from now is selling for ₹3,300 per barrel. By going long on the futures the petrochemical plant can lock in the procurement at ₹3,300 per barrel. Assuming the size of one futures contract of 100 barrels, the firm buys 200 futures to cover its exposure of 20,000 barrels.

Find out the price that would be payable under two scenarios of rise in price to ₹ 3,600 or fall in price to ₹2,700 per barrel after three months. [8]

Answers:

5(a) (i) (I) Action = Sell foreign currency in forward market

Relevant Rate = Spot Ask Rate = ` 56.25

US$ required to get ` 30,00,000 = ` 30,00,000 ÷ ` 57.00 = 52,631.58

(II) ` required to obtain US$ 2,40,000 in the spot market

Action = Buy foreign currency in spot market.

Relevant Rate = Spot Ask Rate = ` 56.25

Rupees required to obtain $ 2,40,000 = US$ 2,40,000 × 56.25 = ` 1,35,00,000

(III) Evaluation of investment in rupees

Forward premium (or Bid Rates)

$$= \frac{\text{Forward Rate } ₹57 - \text{Spot Rate } ₹56}{\text{Spot Rate } ₹56} \times \frac{12 \text{ months}}{2 \text{ months}} \times 100 = 10.71\%$$

Annualized Forward Premium for Bid Rates (10.71%) is greater than the Annual Return on investment in Rupees (10%). Therefore, the firm should not encash its US$ balance now. It should sell the US$ in the forward market and encash them two months later.

5(b)

Price after 3 months	₹ 2700/barrel	₹ 3600/barrel
Actual purchase price	2700	2400
Bought future at	3300	3300
Sold future at	2700	3600
Profit/Loss on future	-600	+300
Effective Price	3300	3300
Quantity of crude oil to be Hedge	(2700+600)	(3600 – 300)

Size one future contract 100 barrel

Number of future contract 20,000 ÷ 100 = 200

6 (a) A portfolio Manager owns three stocks.

Stock	Shares owned	Stock price	Beta
1	40,000	₹300	1.1
2	80,000	₹ 200	1.2
3	1,20,000	₹80	1.3

The spot Nifty Index is at 1,400 and futures price is 1,420; the index factor is 100. Use stock index futures to:

(a) **Decrease beta to 0.8**

(b) **Increase the portfolio beta to 1.5**

(c) **Find out the number of contracts of stock index futures to be bought or sold. [8]**

6. (b) The data pertaining to 5 Mutual funds is given below.

Fund	Return	Standard deviation (σ)	Beta (β)
J	13	6	1.50
K	9	2	0.90
L	11	3	1.20

M	**15**	**5**	**0.80**
N	**12**	**4**	**1.10**

Compute the reward- to- variability/volatility ratios and rank the funds, if the risk-free rate is 6% **[8]**

Answers:

6(a) Computation of Existing portfolio Beta

Security	Market value of security	Proportion	Beta of the security	Weighted beta
1	₹ 300 × 40,000 = 120 Lakhs	$\frac{120}{376}$	1.1	0.35
2	₹ 200 × 80,000 = 160 Lakhs	$\frac{160}{376}$	1.2	0.51
3	₹ 80 × 1,20,000 = 96 Lakhs	$\frac{96}{376}$	1.3	0.33
	376			**1.19**

Value per futures contract

= Index price per unit × lot size per futures contract.

₹ 1,400 × 100 = ₹ 1,40,000

(a) Activity to reduce portfolio Beta to 0.8

Objective – Reduce portfolio Beta

Activity – Sell Index Futures.

Beta of Existing Portfolio = β_1 = 1.19

Desired Beta of the New Portfolio - β_N = 0.8

Contract size = 100 units.

Value per futures contract in NIFTY V_F = ₹ 1,400 × 100 = ₹ 1,40,000

Value of portfolio = V_P = ₹ 376 Lakhs.

No. of futures contract to be sold

$$= \text{Portfolio Value} \times \frac{\text{Beta of Portfolio} - \text{Desired Value of Beta}}{\text{Value of a futures contract in NIFTY}} \text{ Or } V_P \times \frac{\beta_1 - \beta_N}{V_F}$$

$$= ₹\,376 \text{ Lakhs} \times \frac{(1.19 - 0.8)}{₹1,40,000} = 104.7 \text{ or } 105 \text{ Contracts}$$

(b) Activity to increase the portfolio Beta to 1.5

Object – Increase portfolio Beta

Activity – Buy Index Futures.

(c)No. of futures contract to be bought

$$= \text{Portfolio Value} \times \frac{\text{Desired value of beta - Beta of portfolio}}{\text{Value of a Futures Contract}}$$

$$= V_P = \frac{\beta_N - \beta_1}{V_F} = \frac{₹376\text{Lakhs} \times (1.50 - 1.19)}{₹1,40,000} = 83 \text{ Contracts}$$

6(b) For computing reward to variability/volatility ratio is

- Sharpe's Ratio = $\left[\left(R_P - R_F\right) \div \sigma_P\right]$
- Treynor's Ratio = $\left[\left(R_P - R_F\right) \div \beta_P\right]$

Ranking based on Sharpe's Ratio and Treynor Ratio method.

Fund	Under sharpe's mothod $\left[\left(R_P - R_F\right) \div \sigma_P\right]$	Ranking	Under Treynor method $\left[\left(R_P - R_F\right) \div \beta_P\right]$	
J	[(13 – 6) ÷ 6] = 1.17	4	[(13 – 6) ÷ 1.50] = 4.67	3
K	[(9 – 6) ÷ 2] = 1.50	3	[(9 – 6) ÷ 0.90] = 3.33	5
L	[(11 – 6) ÷ 3] = 1.67	2	[(11 – 6) ÷ 1.20] = 4.17	4
M	[(15 – 6) ÷ 5] = 1.80	1	[(15 – 6) ÷ 0.80] = 11.25	1
N	[(12 – 6) ÷ 4] = 1.50	3	[(12 – 6) ÷ 1.10] = 5.45	2

(II)

Company	Principal Business
(i) AFC	Financing of physical assets supporting productive/economic activity.
(ii) IC	Acquisition of securities
(iii) IDF-NBFC	Raising of long term debt to finance infrastructure projects

7 (a) A share is currently priced at ₹ 600. It is known that at the end of one month, it will be either ₹570 or ₹ 630. The risk-free interest rate is 8% per annum with continuous compounding. Find the value of a 1-month European call option with a strike price of ₹ 592, with the help of a Binomial Model. [8]

7. (b) Classify the following participants of the commodity market under the appropriate category—Hedgers, Speculators and Arbitrageurs
(i) Warehousing Companies (ii) Brokerage Houses
(iii) Food Processing Companies (iv) Farmers [8]

Answers:

7(a) (a)

Computation of Option Delta [Binomial Model]:

	FP_1	FP_2
Future spot price	630	570
Position on expiry date [compared to Exercise Price]	In the money	Out of money
Action on Expiry Date	Exercise	Lapse
Value of Option on Expiry [Future spot price-Exercise price]	[630 – 592] = 38	0

Option Delta = Change in value of option /Change in Future spot price = [₹ 38-0] / [₹ 630 – ₹570]= 0.633
Computation of amount to be invested in Risk Free Rate:
= Present value of Lower band of Future spot price i. e, FP_2
= Present value of ₹570 discounted at 8 % continuous compounding for a 1- month period
= ₹ 570 × e^{-rt} = ₹570 × $e^{-0.08 \times 1/12}$ = ₹570/ $e^{0.007}$ = ₹570/ 1.00702 = ₹566.
Value of call = Option Delta × [Current stock price - Amount to be invested at Risk free rate] = 0.633 × [₹ 600 – ₹566] = ₹ 21.522.
Note: The problem can be worked out by using any other method under Binomial Model since no specific method is mentioned in the question paper.

7(b)

(i)	Warehousing Companies	-	Arbitrageurs
(ii)	Brokerage Hours	-	Speculators/Arbitrageurs
(iii)	Food Processing Companies	-	Hedgers
(iv)	Farmers	-	Hedgers

8. Write a short note on any four of the following: [4×4=16]

(a) Liquidity Adjustment Facility
(b) NBFCs
(c) Forward Market Commission
(d) Money Market Mutual Funds
(e) ADR and GDRs

Answers:

8(a). Liquidity Adjustment facility.

LAF is facility extended by the Reserve Bank of India to the scheduled commercial banks (excluding RRBs) and primary dealers to avail of liquidity in case of requirement or park excess funds with the RBI in case of excess liquidity on an overnight basis against the collateral of Government securities including State Government securities. Basically LAF enables liquidity management on a day to day basis. The operations of LAF are conducted by way of repurchase agreements with RBI being the counter party to all the transactions. The interest rate in LAF is fixed by the RBI from time to time. LAF is an important tool of monetary policy and enables RBI to transmit interest rate signals to the market.

8 (b). NBFCs

A Non-Banking Financial Company (NBFC) is a company registered under the Companies Act, 1956 (now 2013) engaged in the business of loans and advances, acquisition of shares/stocks/bonds/debentures/ securities issued by Government or local authority or other marketable securities of a like nature, leasing, hire-purchase, insurance business, chit business but does not include any institution whose principal business is that of agriculture activity, industrial activity, purchase or sale of any goods (other than securities) or providing any services and sale/purchase/construction of immovable property. A non-banking institution which is a company and has principal business of receiving deposits under any scheme or arrangement in one lump sum or in installments by way of contributions or in any other manner, is also a non-banking financial company (Residuary non-banking company).

8(c). Forward Market Commission.

Forward Markets Commission (FMC) headquartered at Mumbai, is a regulatory authority which is overseen by the Ministry of Consumer Affairs, Food and Public Distribution, Govt. of India. It is a statutory body set up in 1953 under the Forward Contracts (Regulation) Act, 1952.
Functions of Forward market commission of India
(i) To advice the Central Government in respect of the recognition or withdrawal of recognition from any association. It also advices government about any other matter arising out of the administration of this act.
(ii) Second function of the act includes the task of keeping forward market s under observation and take necessary actions. The actions taken should be according to powers given to the commission by the "Forward Contract Regulation Act".
(iii) To collect information regarding the trading conditions in respect of goods (to which any of the provisions of this Act is made applicable) including information regarding supply, demand and prices. And publish information whenever the Commission thinks it necessary, It also performs the task of submitting to the Central Government periodical reports on the operation of this Act and on the working of forward markets relating to such goods.
(iv) To make recommendations generally with a view to improving the organization and working of forward markets
(v) To undertake the inspection of the accounts and other documents of [any recognized association or registered association or any member of such association] whenever it considers it necessary.
(vi) To perform such specified duties and exercise assigned powers by the "Forward Contract Regulation Act".

8(d). Money Market Mutual Funds.

- Object: Provide easy liquidity, preservation of capital and moderate income.
- Investment Pattern: Safer Short-Term Instruments such as Treasury Bills, Certificates of Deposit, Commercial Paper and Inter-Bank Call Money. Returns on these schemes may fluctuate depending upon the interest rates prevailing in the market.
- For Whom? For corporate and individual investors, who wish to invest their surplus funds for short period.

8(e). ADRs and GDRs.

ADRs
An American Depositary Receipt (ADR) is a certificate that represent shares of a foreign stock owned and issued by a U.S. bank. The foreign shares are usually held in custody overseas, but the certificates trade in the U.S. Through this system, a large number of foreign-based companies are actively traded on one of the three major U.S. equity markets (the NYSE, AMEX or Nasdaq).
To create an ADR, a U.S.-based broker/dealer purchases shares of the issuer in question in the issuer's home market. The U.S. broker/dealer then deposits those shares in a bank in that market. The bank then issues ADRs representing those shares to the broker/dealer's custodian or the broker-dealer itself, which can then apply them to the client's account. A broker/dealer's decision to create new ADRs is largely based on its opinion of the availability of the shares, the pricing and market for the ADRs, and market conditions.
GDRs
These are a class of investment which allows international investors to own shares in foreign companies where the foreign market is hard to access for the retail investor, and without having to worry about foreign currencies and tax treatments. Global Depositary Receipts are issued by international investments banks as certificates (the GDR) which represents the foreign shares but which can be traded on the local stock exchange. For example a UK investor may be able to buy shares in a Vietnamese company via a GDR issued by a UK investment. The GDR will be denominated in GB Pounds and will be tradable on the London

Stock Exchange. The investment bank takes care of currency exchange, foreign taxes etc. and pays dividends on the GDR in GB Pounds.

Features

(a) Underlying Shares: Each GDR may represent one or more underlying share, which are physically held by the Custodian appointed by the Depository Bank.

(b) Entry in Company's Books: In the Company's books, the Depository Bank's name appears as the holder of the shares.

(c) Returns: Depository gets the dividends from the Company (in local currency) and distributes them to the holders of the Depository Receipts after converting into dollars at the going rate of exchange.

(d) Negotiable: GDRs are exchangeable with the underlying share either at any time, or after the lapse of a particular period of time, generally 45 Days.

(e) Globally Marketed: GDRs are marketed globally without being confined to borders of any market or country as it can be traded in more than one country.

(f) Settlement: GDRs are settled through CEDEL & Euro-Clear International Book Entry Systems.