

P-14 : STRATEGIC FINANCIAL MANAGEMENT

SUGGESTED ANSWERS

SECTION-A

1.

- (i) (B)
- (ii) (A)
- (iii) (C/D)
- (iv) (C)
- (v) (A)
- (vi) (B)
- (vii) (B)
- (viii) (A)
- (ix) (C)
- (x) (C)
- (xi) (A)
- (xii) (C)
- (xiii) (A)
- (xiv) (D)
- (xv) (B)

SECTION – B

2. (a):

(i)

Calculation of NPV

Particulars	Year	Net Cashflow (₹)	PVF @ 14%	PV (₹)
Initial Cash outflows [W/N (a)]	0	(2420000)	1	(2420000)
Less : Subsidy from government (15% of 2400000)	1	360000	0.877	<u>315720</u>
Net Cash outflow				(2104280)
Incremental CFAT [W/N (C)]	1 to 6	625000	3.888	2430000
Salvage Value of New Machine	6	320000	0.456	145920
PV of inflows				2575920
Net Present Value				471640

$$\text{Profitability Index} = \frac{\text{Sum of discounted cash inflows}}{\text{Initial cash outlay or Total discounted cash outflow (as the case may)}}$$
$$= 2575920 / 2104280 = 1.224$$

(ii) Advise: Since the NPV is positive and PI is greater than 1, the company should replace the machine.

Working Notes:**(a) Calculation of Initial Cash Outflows:**

Particulars	₹
Cost of new machine	2400000
Less : Sale Proceeds of existing machine	(180000)
Add. : Installation Cost	140000
Add. : Testing Cost	60000
Initial Cash outflows	2420000

(b) Calculation of Incremental Depreciation:

Particulars	₹
Depreciation on existing machine (480000/6) (i)	80000
Depreciation base of New Machine:	
Cost of new machine	2400000
Add: Installation	140000
Add: Testing	60000
Less: Subsidy from government	(360000)
Less: Salvage value at the end of 6 th Year	(320000)
Depreciation base of New Machine	1920000
Depreciation on New Machine (1920000/6) (ii)	320000
Incremental Depreciation [(ii) – (i)]	240000

(c) Computation of Annual Operating Cash Flow after Tax (CFAT)

Particulars	Amount (₹)	Amount (₹)
Saving in Cost:		
Cost of 3 skilled workers (₹ 168000 x 3)	504000	
Reduced Wastage of Material	480000	
Saving in loss of Sales	350000	
Total		1334000
Less : Increase in Cost:		
Salary to Trained Technician	390000	
Increase in annual operation and maintenance cost	154000	
Total		(544000)
Incremental Saving before tax and depreciation		790000
Less : Incremental Depreciation		(240000)
Incremental PBT		550000
Less : Tax @ 30 %		(165000)
PAT		385000
Add : Depreciation		240000
Incremental CFAT		625000

2. (b):

Computation of Net Cash out flow if the Asset is Purchased by Borrowing

Year	Principal repayment	Interest	Instalment	Tax savings on interest	Tax savings on dep	Net cash outflow	PV @ 10%	Present value
1	16,000	9,600	25,600	3,360	5,600	16,640	0.909	15,126
2	16,000	7,680	23,680	2,688	5,600	15,392	0.826	12,714
3	16,000	5,760	21,760	2,016	5,600	14,144	0.751	10,622
4	16,000	3,840	19,840	1,344	5,600	12,896	0.683	8,808
5	16,000	1,920	17,920	672	5,600	11,648	0.621	7,233
							Total(₹)	54,503

Present value of terminal cash inflows:

	₹
Sale value of asset	= 4,000
(-) Commission	= <u>400</u>
	3,600
(-) Tax on profit @ 35%	= <u>1,260</u>
Net Cash inflow	= <u>2,340</u>
Present value (2340 × 0.621)	= <u>1,453</u>

Net PV of Purchase Outflow = 54,503 – 1,453 = ₹ 53,050

Computation of break-even lease rent:

Let X be the break-even lease rent

Present value of cash inflows:

Lease rent	X
(-) Tax saving (X @ 35%)	0.35X
Lease rent after tax per year	0.65X

Present value of lease rental for five years = (0.65X) × (3.79) = 53,050

or, X = ₹ 21534.

So, the required annual lease rental is ₹ 21534.

3. (a):

(i) **Assessment of expected cash flow for each project:**

Project A

Scenario	Cash Inflow (₹)	Probability	Contribution (₹)
Pessimistic	7,00,000	0.2	1,40,000
Most Likely	9,50,000	0.5	4,75,000
Optimistic	12,00,000	0.3	3,60,000
Expected Inflow (A)			9,75,000

Project B

Scenario	Cash Inflow (₹)	Probability	Contribution (₹)
Pessimistic	5,00,000	0.3	1,50,000
Most Likely	10,00,000	0.4	4,00,000
Optimistic	14,00,000	0.3	4,20,000
Expected Inflow (B)			9,70,000

(ii) **Analysis of coefficient of variation for each project**

Coefficient of Variation (CV) = Standard Deviation / Expected Cashflow

CV-Project A = 1,80,000/9,75,000 = 0.1846

CV-Project B = 2,50,000 / 9,70,000 = 0.2577

(iii) **Assessment of coefficient of variation for industry:**

Project	Expected Inflow (₹)	Standard Deviation (₹)	CV
X	8,00,000	1,60,000	0.2000
Y	10,00,000	2,20,000	0.2200
Z	9,00,000	1,80,000	0.2000
Industry Benchmark-CV			0.2067

(iv) **Recommendation:**

Project A's CV (0.1846) is better than the industry benchmark (0.2067), while Project B (0.2577) is riskier. Therefore, Project A should be selected.

3. (b):

(i) Sustainable Growth Rate for Year 3 and beyond, $g = \text{Return on Equity (ROE)} \times \text{Retention Ratio}$

$g = 0.18 \times 0.50 = 0.09$ or 9%

Expected Dividend for 3 years:

Year 1 Dividend (D_1) = 25 x (1 + 0.12) = ₹ 28.00

Year 2 Dividend (D_2) = 28.00 x (1 + 0.10) = ₹ 30.80

Year 3 Dividend (D_3) = 30.80 x (1 + 0.09) = ₹ 33.57

Present Value of Dividend for 2 years = $D_1 / (1+K)^1 + D_2 / (1+K)^2$

= 28.00 x 0.877 + 30.80 x 0.769

= 24.5560 + 23.6852 = ₹ 48.24

Terminal Value at End of Year 2:

Terminal Value $P_2 = D_3 / (k - g) = 33.57 / (0.14 - 0.09) = ₹ 671.40$

Present Value of Terminal Value: 671.40 x 0.769 = ₹ 516.30

The present value per share of LMN Ltd. will be:

48.24 + 516.30 = ₹ 564.54

- (ii) The intrinsic value of ₹ 564.54 is higher than the current market price of ₹ 550. Therefore, the share of LMN Ltd., is undervalued.

4. (a):

(i) Current Market Price of Corporate Bond:

$$\text{PV of Coupon Payments} = 110 \times 3.784 = ₹416.24$$

$$\text{PV of Redemption Value} = 1,000 \times 0.432 = ₹ 432.00$$

$$\begin{aligned} \text{Current Market Price} \\ = 416.24 + 432.00 = ₹ 848.24 \end{aligned}$$

(ii) Duration of the Bond:

Year	Cash flow	P.V. @15%	P.V.	P.V. x Year
1	110	0.870	95.70	95.70
2	110	0.756	83.16	166.32
3.	110	0.657	72.27	216.81
4.	110	0.572	62.92	251.68
5.	110	0.497	54.67	273.35
6.	1110	0.432	479.52	2877.12
			848.24	3880.98

$$\text{Duration} = \frac{3880.98}{848.24} = 4.575 \text{ Years}$$

(iii) Volatility of the Bond :

$$\frac{\text{Duration}}{(1 + \text{Yields})} = \frac{4.575}{1.15} = 3.978$$

(iv) Expected Market Price if increase in required yield is by 100 basis points:

$$= 848.24 \times 1 \left(\frac{3.978}{100} \right) = 33.74$$

$$= \text{Then Market Price will be } (848.24 - 33.74) = ₹ 814.50$$

(v) Expected Market Price if decrease in required yield is by 75 basis points:

$$= 848.24 \times 0.75 \left(\frac{3.978}{100} \right) = 25.31$$

$$= \text{Then Market Price will be } 848.24 + 25.31 = ₹ 873.55$$

4. (b):**(i) Net Asset Value (NAV) of the Fund:**

Particulars	₹ in Crore
Market value of Shares :	
IT & ITES [35 x (3100 ÷ 1800)]	60.28
Infrastructure [20 x (2550 ÷ 1500)]	34.00
Aviation / Transport [10 x (2300 ÷ 1400)]	16.43
Automotive [25 x (2800 ÷ 1750)]	40.00
Banking / Financial [15 x (2500 ÷ 1600)]	23.44
Cost of investment in unlisted bonds	20
Cash and other assets	4.00
Total assets of the fund	198.15
Less : Outstanding expenses	(5.00)
Net Asset Value (NAV) of the fund	193.15

(ii) Net Asset Value (NAV) per unit

NAV Per Unit = Net Asset Value of the Fund ÷ No. of units outstanding

= 193.15 Crore ÷ 7 crore units = ₹ 27.59

(iii) Computation of Opening NAV:

Particulars	₹ in Crore
(a) IT & ITES	35.00
(b) Infrastructure	20.00
(c) Aviation / Transport	10.00
(d) Automotive	25.00
(e) Banking / Financial	15.00
Cost of investment in unlisted bonds	20
Net Asset Value (NAV) of the fund at opening	125
Opening NAV per unit ₹ (125/7)	₹ 17.86

Computation of Annualized Returns

Particulars	Value	
Closing NAV per unit	₹ 27.59	
Opening NAV per unit	₹ 17.86	
Capital appreciation	₹ 9.73	
Cash dividend (₹ 3 x 2 years)	₹ 6	₹ 15.73
Total return (%) = (15.73 ÷ 17.86)		88.074 %
Return per year = (88.074 % ÷ 2)		44.037 %

5. (a):

(i) Assessment of Expected Rate of Return under CAPM

$$E(R) = R_F + [\beta \times (R_M - R_F)] \text{ [Expected Return on Portfolio]}$$

Risk Free Return, $R_F = 5.5\%$ [Treasury Bills]

Return on Market Portfolio, $R_M = 11\%$ [Given]

Expected Return on	Portfolio Moon	Portfolio Sun
Beta Factor	1.8	1.4
Expected Return	$E(R_{Moon}) = R_F + [\beta_{Moon} \times (R_M - R_F)]$	$E(R_{Sun}) = R_F + [\beta_{Sun} \times (R_M - R_F)]$
	$= 5.5\% + [1.8 \times (11\% - 5.5\%)]$	$= 5.5\% + [1.40 \times (11\% - 5.5\%)]$
	$= 5.5\% + [1.8 \times 5.5\%]$	$= 5.5\% + [1.40 \times 5.5\%]$
	$= 5.5\% + 9.90\% = 15.40\%$	$= 5.5\% + 7.70\% = 13.20\%$

(ii) Alpha Adjusted Return:

Year	Portfolio Moon		Portfolio Sun	
	Actual Return	Abnormal Return [AR_{Moon}]	Actual Return	Abnormal Return [AR_{Sun}]
(1)	(2)	(3) = (2) - $E(R_{Moon})$	(4)	(5) = (4) - $E(R_{Sun})$
1	14.20%	14.20% - 15.40% = (1.20%)	15.45%	15.45% - 13.20% = 2.25%
2	14.70%	14.70% - 15.40% = (0.70%)	12.48%	12.48% - 13.20% = (0.72%)
3	13.70%	13.70% - 15.40% = (1.70%)	14.70%	14.70% - 13.20% = 1.50%
4	15.20%	15.20% - 15.40% = (0.20%)	14.00%	14.00% - 13.20% = 0.80%
		(3.80%)		3.83%

Alpha factor:

$$\text{Portfolio Moon } \alpha = (3.80\%) \div 4 \text{ Years} = (0.95\%)$$

$$\text{Portfolio Sun } \alpha = 3.83\% \div 4 \text{ Years} = 0.96\%$$

Expected Return adjusted for Alpha

$$\text{Alpha Adjusted Return} = \text{Return under CAPM} + \alpha$$

$$\text{Portfolio Moon} = E(R_{Moon}) + \alpha = 15.40\% - 0.95\% = 14.45\%$$

$$\text{Portfolio Sun} = E(R_{Sun}) + \alpha = 13.20\% + 0.96\% = 14.16\%$$

(iii) Recommendation: The Alpha adjusted return for Portfolio Moon is higher than Sun, indicating its better performance relative to Sun. Hence, an investor should prefer Portfolio Moon.

Alternatively:

(i) Assessment of Expected Rate of Return under CAPM

$$E(R) = R_F + [\beta \times (R_M - R_F)] \text{ [Expected Return on Portfolio]}$$

Risk Free Return, $R_F = 5.5\%$ [Treasury Bills]

Return on Market Portfolio, $R_M = 11\%$ [Given]

Expected Return on	Portfolio Moon	Portfolio Sun
Beta Factor	1.8	1.4
Expected Return	$E(R_{Moon}) = R_F + [\beta_{Moon} \times (R_M - R_F)]$	$E(R_{Sun}) = R_F + [\beta_{Sun} \times (R_M - R_F)]$
	$= 5.5\% + [1.8 \times (11\% - 5.5\%)]$	$= 5.5\% + [1.40 \times (11\% - 5.5\%)]$
	$= 5.5\% + [1.8 \times 5.5\%]$	$= 5.5\% + [1.40 \times 5.5\%]$
	$= 5.5\% + 9.90\% = 15.40\%$	$= 5.5\% + 7.70\% = 13.20\%$

(ii) Alpha Adjusted Return:

Average Actual Return

Portfolio Moon

$$\frac{14.20 + 14.70 + 13.70 + 15.20}{4} = \frac{57.80}{4} = \boxed{14.45\%}$$

Portfolio Sun

$$\frac{15.45 + 12.48 + 14.70 + 14.00}{4} = \frac{56.63}{4} = \boxed{14.16\%}$$

Alpha (α)

$$\alpha = \text{Actual Return} - \text{CAPM Return}$$

Portfolio	Actual Avg (%)	CAPM (%)	Alpha (%)
Moon	14.45	15.40	-0.95
Sun	14.16	13.20	+0.96

Alpha-Adjusted Returns

- **Moon** → **-0.95%** (Underperformed CAPM expectation)
- **Sun** → **+0.96%** (Outperformed CAPM expectation)

(iii) Recommendation:

Investor should prefer Portfolio Sun because:

Portfolio Sun delivers returns (14.16%) higher than CAPM-expected return (13.20%)

Portfolio Sun has positive alpha, meaning it generated returns above what was required for its risk level.

5. (b):

Calculation of Beta:

Beta of Stock ROX	$(\beta_R) = \frac{0.840 \times 2.50}{1.20} = 1.75$
Beta of Stock SEZ	$(\beta_S) = \frac{0.540 \times 2.00}{1.20} = 0.90$
Beta of Stock TOM	$(\beta_T) = \frac{0.975 \times 0.80}{1.20} = 0.65$

Required Rate of Return of Stock is given by CAPM:

Stock ROX = 9 % + 1.75 (14 % - 9%) = 17.75 %

Stock SEZ = 9 % + 0.90 (14 % - 9%) = 13.50 %

Stock TOM = 9 % + 0.65 (14 % - 9%) = 12.25 %

Assessment of Rank of the Fund for

- Sharpe's Measurement
- Treynor's Measure and
- Jensen's Alpha

Name of the Funds	Return (%)	Risk Free Return (%)	Market Return (%)	Standard Deviation (%)	Beta (β)	$R_i - R_f$ (2 - 3)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
ROX	19	9	14	2.50	1.75	10.00
SEZ	13.50	9	14	2.00	0.90	4.50
TOM	11.00	9	14	0.80	0.65	2.00

Name of the Funds	$R_f + \beta(R_m - R_f)$ (%)	Sharpe's		Treyner's		Jensen's	
		Measure $\frac{(R_i - R_f)}{\sigma}$ (%)	Rank	Measure $\frac{R_i - R_f}{\beta}$ (%)	Rank	Alpha (2 - 9) (%)	Rank
(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
ROX	17.75	4.00	1	5.71	1	1.25	1
SEZ	13.50	2.25	3	5.00	2	0	2
TOM	12.25	2.50	2	3.08	3	(1.25)	3

6 (a):

(i) Calculation of Beta of Security BZ

Let beta of Security BZ is β_B

Security	Price of the Stock	No. of Shares	Value	Weightage W_i	Beta β_i	Weighted Beta
AN	612.65	3000	1837950	0.113	0.90	0.1017
BZ	334.20	5000	1671000	0.102	β_B	$0.102 \beta_B$
CT	454.45	6000	2726700	0.167	0.40	0.067
DM	775.10	10000	7751000	0.475	0.95	0.451
EB	781.05	3000	2343150	0.143	0.85	0.122
			16329800			$0.7417 + 0.102 \beta_B$

Since the Portfolio beta is 0.859, the beta of Security BZ shall be:

$$0.7417 + 0.102 \beta_B = 0.859, \text{ or } 0.102 \beta_B = 0.1173 \text{ or, } \beta_B = 1.15$$

(ii) Calculation of Theoretical Value of Future Contract

Cost of Capital = 10.5 % p.a.

Accordingly, the Continuously Compounded Rate of Interest in $(1.105) = 0.0998$

For February 2025 contract, $t = 58/365 = 0.1589$

Further $F = Se^{rt}$

$$F = ₹ 13000 e^{(0.0998)(0.1589)}$$

$$F = ₹ 13000 e^{0.015858}$$

$$F = ₹ 13000 \times 1.01598$$

$$= ₹ 13207.74$$

Alternatively, it can also be taken as follows:

$$= ₹ 13000 \times e^{0.105 \times 58/365}$$

$$= ₹ 13000 \times e^{0.01668}$$

$$= ₹ 13000 \times 1.01682$$

$$= ₹ 13218.66$$

(iii) When total portfolio is to be hedged, the number of contracts is:

$$\frac{\text{Value of Spot position requiring hedging}}{\text{Value of Future Contract}} \times \text{Portfolio Beta}$$

$$\frac{16329800}{13207.74 \times 100} \times 0.859 = 10.62 \text{ Contracts i.e. 11 Contracts}$$

Alternatively, it can also be taken as follows:

$$\begin{aligned} & \frac{16329800}{13218.66 \times 100} \times 0.859 \\ &= \frac{14027298.2}{1321866} = 10.61 \text{ i.e 11 contracts} \end{aligned}$$

(iv) If Revised Portfolio Beta is 1.263, Number of Future contracts to be sold to Customer will be:

$$(1.263 - 0.859) \times \frac{16329800}{13207.74 \times 100} = 0.404 \times 12.3638 = 4.995 \text{ i.e. 5 Contracts}$$

Alternatively, it can also be taken as follows:

$$(1.263 - 0.859) \times \frac{16329800}{13218.66 \times 100} = 0.404 \times 12.3536 = 4.991 \text{ i.e. 5 Contracts}$$

6. (b):

Basic Data

Particulars	₹
Stock Price (SP ₀)	648
Exercise Price (EP)	640
Expected Future Spot Price on Expiry Date	
Future Price 1 [FP ₁] (Higher Limit)	680
Future Price 2 [FP ₂] (Lower Limit)	616

(i) Binomial Model (Delta Method)

Computation of Option Delta:

Particulars	FP ₁	FP ₂
Future Spot Price	680	616
Position on Expiry Date (in comparison with Exercise Price)	In the Money	Out of Money
Action on Expiry Date	Exercise	Lapse
Value of Option on Expiry [Future Spot Price Less Exercise Price]	40 (680 - 640)	0

Option Delta = Change in Value of Option ÷ Change in Future Spot Price

$$(40 - 0) \div (680 - 616) = 40 \div 64 = 0.625$$

Computation of amount to be invested at Risk Free Rate:

= Present Value of Lower Band of Future Spot Price i.e. FP₂

= Present Value of 616 discounted at 6% Continuous Compounding for a 3 months Period

$$= ₹ 616 \times e^{-rt} = 616 \times e^{-0.06 \times 0.25}$$

$$= 616 \times e^{-0.015} = 616 \times 0.985112$$

$$= ₹ 606.83$$

Value of Call (C) Option:

Option Delta x [Current Stock Price Less Amount to be invested at Risk Free Rate]

$$= 0.625 \times (648 - 606.83)$$

$$= ₹ 25.73$$

(ii) Value of Put (P) (Under Put Call Parity):

→ Value of Call + Present Value of Exercise Price = Current Spot Price + Value of Put

$$\rightarrow C + EP \times e^{-rt} = SP_0 + P$$

$$= 25.73 + 640 \times 0.985112 = 648 + \text{Put Option}$$

$$\text{Or, } 25.73 + 630.47 = 648 + \text{Put Option}$$

$$\therefore \text{Put Option} = 656.20 - 648$$

$$= ₹ 8.20$$

(iii) Expected Value of Option:

$$0.60 \times 40 + 0.40 \times 0 = ₹ 24$$

Expected Value of Stock Price at the end of three months:

$$= 0.60 \times 680 + 0.40 \times 616$$

$$= 408 + 246.40 = ₹ 654.40$$

7. (a):**(i) Check whether Arbitrage Opportunity Exists:**

Calculation of Cross Rate :

$$\text{Implied (USD/INR)}_{\text{Bid}} = (\text{GBP/INR})_{\text{Bid}} \times (\text{USD/GBP})_{\text{Bid}}$$

$$= (\text{GBP/INR})_{\text{Bid}} \times \frac{1}{(\text{GBP/USD})_{\text{ASK}}}$$

$$= (113.4407) \times \frac{1}{1.5740} = 72.0716$$

$$\text{Implied (USD/INR)}_{\text{ASK}} = (\text{GBP/INR})_{\text{ASK}} \times (\text{USD/GBP})_{\text{ASK}}$$

$$= (\text{GBP/INR})_{\text{ASK}} \times \frac{1}{(\text{GBP/USD})_{\text{Bid}}}$$

$$= 113.4487 \times \frac{1}{1.5715}$$

$$= 72.1913$$

Since implied (USD/INR) Cross rate is lower than the Actual rate, it appears that in the actual market USD is overpriced in relation to INR. So INR is weaker currency here and we must buy INR by selling USD.

Hence, there exists an arbitrage opportunity.

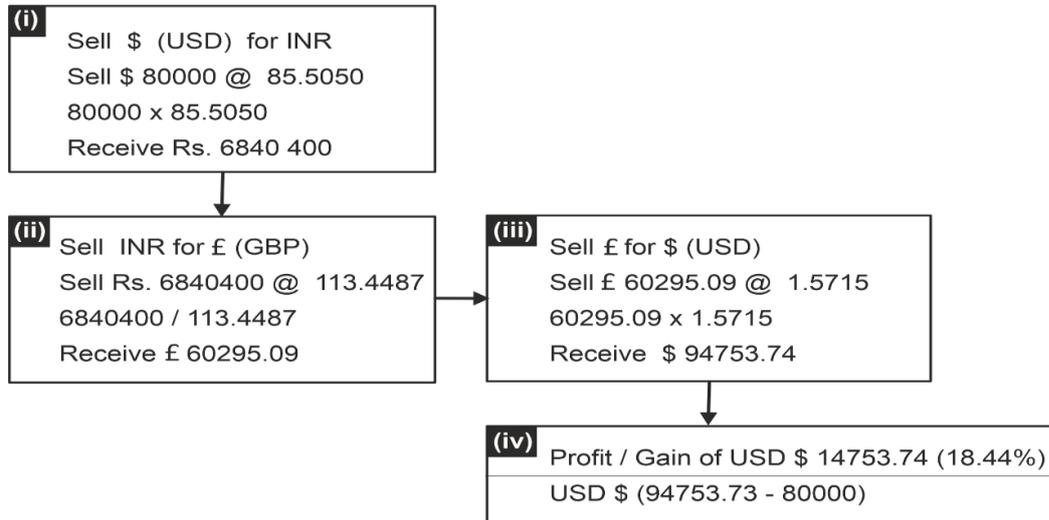
(ii) The Steps to make riskless profit from arbitrage are:

(i) Sell \$ to buy INR

(ii) Sell INR to buy £

(iii) Sell £ to buy \$ USD.

Assessment of Project from Arbitrage:



7 (b):

(i) Forward hedge

INR outflow = $8000000 \times 84.50 = ₹ 676000000 = ₹ 6760.00$ Lakh

(ii) Money market hedge

Interest rates (6 - month, simple):

India 8% p.a.: Half yearly - $0.08 \times 0.5 = 0.04$

USA 3% p.a.: Half yearly - $0.03 \times 0.5 = 0.015$

USD required today = $8000000 \div 1.015 = 7881773.40$ USD

Convert into INR at spot = $7881773.40 \times 83.70 = ₹ 659704433.58$

Borrow this INR today and repay in 6 months at 4% (half-year Indian rate)

Repayment = $659704433.58 \times 1.04 = ₹ 686092610.92 = 6860.93$ Lakh

Outflow under money market = ₹ 6860.93 Lakh

(iii) Option hedge

Premium paid now = $8000000 \times 1.20 = ₹ 9600000$

Scenario A (prob 0.4, spot = 82.50) :

Cheaper to buy at spot

Outflow = $8000000 \times 82.50 = ₹ 660000000 + 9600000 = ₹ 669600000$
 = ₹ 6696.00 Lakh

Scenario B (prob 0.6, spot = 86.00):

Exercise option at 84.00

Outflow = $8000000 \times 84.00 = ₹ 672000000 + 9600000 = ₹ 681600000$
 = ₹ 6816.00 Lakh

Expected outflow = $0.4 \times 6696 + 0.60 \times 6816 = ₹ 6768.00$ Lakh

(iv) Advise:

- Forward hedge: ₹ 6760.00Lakh
- Money market hedge : ₹ 6860.93Lakh
- Option hedge : Expected outflow ₹ 6768.00 Lakh

Conclusion:

The forward hedge ensures the lowest certain cost (₹ 6760.00 Lakh).

8. (a):

Central Bank Digital Currencies (CBDC) are digital tokens, similar to crypto-currency, issued by a central bank. It is the virtual money backed and Issued by a central bank. They are pegged to the value of that country's fiat currency. A CBDC is a high-security digital instrument; like paper banknotes, It is a means of payment, a unit of account, and a store of value. Like paper currency, each unit is uniquely identifiable to prevent counterfeiting.

The potential advantages of a CBDC are aligned below:

- (i) Technological efficiency in storing and transacting with reduced cost;
- (ii) Keeping track of transactions, exact location of money;
- (iii) Preventing illegal activities like money laundering, tax evasion, terror financing;
- (iv) Providing a digital record of every transaction;
- (v) More secure payment system;
- (vi) Introducing competition and resilience in the domestic payments market;
- (vii) Promoting financial inclusion.

8. (b):

The Key Features of GDRs are appended below:

- (i) **Underlying Shares:** Each GDR may represent one or more underlying share, which are physically held by the Custodian appointed by the Depository Bank.
- (ii) **Entry in Company's Books:** In the Company's books, the Depository Bank's name appears as the holder of the shares.
- (iii) **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.
- (iv) **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.
- (v) **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.
- (vi) **Settlement:** GDRs are settled through CEDEL & Euro-Clear International Book Entry Systems.

8. (c):

Different type of securities issued by the special purpose vehicle (SPV) in securitization transactions are as follows:

- (i) **Pass Through Certificates:** In case of a pass-through certificate, payments to investors depend upon the cash flow from the assets backing such certificates. That is to say, as and when cash (principal and interest) is received from the original borrower by the SPV, it is passed on to the holders of certificates at regular intervals and the entire principal is returned with the retirement of the assets packed in the pool.
- (ii) **Pay Through Certificates:** Pay through certificates has a multiple maturity structure depending upon the maturity pattern of underlying assets. Thus, the SPV can issue two or three different types of securities with different maturity patterns like short term, medium term and long term.) Thus, these have a greater flexibility with varying maturity pattern needed by the investors.

- (iii) Preferred Stock Certificates:** These are issued by a subsidiary company against the trade debts and consumer receivables of its parent company. In other words, subsidiary companies buy the trade debts and receivables of parent companies to enjoy liquidity.
- (iv) Asset Backed Commercial Papers:** This type of structure is mostly prevalent in mortgage-backed securities. Under this the SPV purchases portfolio of mortgages from different sources (various lending institution) and they are combined into a single group on the basis of interest rate, maturity dates and underlying collaterals.
- (v) Interest Only Certificates:** In case of these certificates, payments are made to investors only from the interest incomes earned from the assets securitized.
- (vi) Principal Only Certificates:** As the very name suggest payments are made to the investors only from the repayment of principal by the original borrower. These certificates enable speculative dealings since the speculators know well that the interest rate movements would affect the bond value immediately. When interest rate increases, the bond value will decline and vice-versa.