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**SUGGESTED SOLUTION**

**CA FINAL**

**SUBJECT- SFM**

**Test Code – FNJ 7361**

**BRANCH - () (Date :)**

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**ANSWER - 1****ANSWER - A**

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 Rs. 12,00,000 is 72.20%, the total portfolio should be

Rs. 12,00,000 × 100/72.20 or Rs.16,62,050

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

**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	0.3008	0.9	0.271
CSL	5000	20	100000	0.0602	1	0.060
SML	8000	25	200000	0.1203	1.5	0.180
APL	2000	200	400000	0.2407	1.2	0.289
Risk free asset	46205	10	462050	0.2780	0	0
			1662050	1		0.800

**(4 MARKS)**

(ii) To increase Beta to 1.2

Required beta 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 × 100/108.30 or 1108033 say 1108030

Additional investment should be (-) 91967 i.e. Divest Rs. 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

(4 MARKS)

### ANSWER – B

#### Net payoff for the holder of the call option

	(Rs.)				
Share price on exercise day	200	210	220	230	240
Option exercise	No	No	No	Yes	Yes
Outflow (Strike price)	Nil	Nil	Nil	220	220
Out flow (premium)	6	6	6	6	6
Total Outflow	6	6	6	226	226
Less inflow (Sales proceeds)	-	-	-	230	240
Net payoff	-6	-6	-6	4	14

(4 MARKS)

#### Net payoff for the holder of the put option

	(Rs.)				
Share price on exercise day	200	210	220	230	240
Option exercise	Yes	Yes	No	No	No
Inflow (strike price)	220	220	Nil	Nil	Nil
Less outflow (purchase price)	200	210	-	-	-
Less outflow (premium)	5	5	5	5	5
Net Payoff	15	5	-5	-5	-5

The call option can be exercised gainfully for any price above Rs.226 (Rs.220 + Rs.6) and put option for any price below Rs.215 (Rs.220 - Rs.5).

(4 MARKS)

## ANSWER – C

### Differences between a start-up and entrepreneurship

Startups are different from entrepreneurship. The major differences between them have been discussed in the following paragraphs:

- (i) Start up is a part of entrepreneurship. Entrepreneurship is a broader concept and it includes a startup firm.
- (ii) The main aim of startup is to build a concern, conceptualize the idea which it has developed into a reality and build a product or service. On the other hand, the major objective of an already established entrepreneurship concern is to attain opportunities with regard to the resources they currently control.
- (iii) A startup generally does not have a major financial motive whereas an established entrepreneurship concern mainly operates on financial motive.

### Priorities and challenges which start-ups in India are facing

The priority is on bringing more and more smaller firms into existence. So, the focus is on need based, instead of opportunity based entrepreneurship. Moreover, the trend is to encourage self-employment rather than large, scalable concerns. The main challenge with the startup firms is getting the right talent. And, paucity of skilled workforce can hinder the chances of a startup organization's growth and development. Further, startups had to comply with numerous regulations which escalates its cost. It leads to further delaying the chances of a breakeven or even earning some amount of profit.

(4 MARKS)

## ANSWER – 2

## ANSWER – A

### As per T Ltd.'s Offer

	Rs. in lakhs
<b>(i) Net Consideration Payable</b>	
7 times EBIDAT, i.e. 7 x Rs. 115.71 lakh	809.97
Less: Debt	<u>240.00</u>
	<u>569.97</u>
<b>(ii) No. of shares to be issued by T Ltd</b>	
Rs. 569.97 lakh/Rs. 220 (rounded off) (Nos.)	2,59,000
<b>(iii) EPS of T Ltd after acquisition</b>	
Total EBIDT (Rs. 400.86 lakh + Rs. 115.71 lakh)	516.57
Less: Interest (Rs. 58 lakh + Rs. 30 lakh)	<u>88.00</u>
	428.57
Less: 30% Tax	<u>128.57</u>
Total earnings (NPAT)	<u>300.00</u>
Total no. of shares outstanding (12 lakh + 2.59 lakh)	14.59 lakh

EPS (Rs. 300 lakh/ 14.59 lakh)	Rs. 20.56
(iv) Expected Market Price:	
	Rs. in lakhs
Pre-acquisition P/E multiple:	
EBIDAT	400.86
Less: Interest (580 x 10/100)	58.00
	342.86
Less: 30% Tax	<u>102.86</u>
	<u>240.00</u>
No. of shares (lakhs)	12.00
EPS	Rs. 20.00
Hence, PE multiple (220/20)	11
Expected market price after acquisition (Rs. 20.56 x 11)	Rs. 226.16

(5 MARKS)

*As per E Ltd's Plan*

	Rs. in lakhs
<b>(i) Net consideration payable</b> 6 lakhs shares x Rs. 110	660
<b>(ii) No. of shares to be issued by T Ltd</b> Rs. 660 lakhs ÷ Rs. 220	3 lakh
<b>(iii) EPS of T Ltd after Acquisition</b> NPAT (as per earlier calculations)	300.00
Total no. of shares outstanding (12 lakhs + 3 lakhs)	15 lakh
Earning Per Share (EPS) Rs. 300 lakh/15 lakh	Rs. 20.00
<b>(iv) Expected Market Price (Rs. 20 x 11)</b>	220.00

(v) **Advantages of Acquisition to T Ltd**

Since the two companies are in the same industry, the following advantages could accrue:

- Synergy, cost reduction and operating efficiency.
- Better market share.
- Avoidance of competition

(5 MARKS)

**ANSWER – B**

Yield for 9 months (120% x 9/12) = 90%

Market value of Investments as on 31.03.2017 = Rs.50,000/- + (Rs.50,000x 90%)= Rs.95,000/-

Therefore, NAV as on 31.03.2017 = (Rs. 95,000 - Rs. 5,000)/5,000 = Rs.18.00

Since dividend was reinvested by Mr. X, additional units acquired =  $5000/18 = 277.78$  unit

Therefore, units as on 31.03.2017 =  $5,000 + 277.78 = 5,277.78$

Alternatively, units as on 31.03.2017 =  $(Rs. 95,000/Rs.18) = 5,277.78$

Dividend as on 31.03.2018 =  $5,277.78 \times Rs. 10 \times 0.2 = Rs.10,555.56$

Capital Gain  $(5277.78 \times Rs.0.60) = Rs.3,166.67$

Rs.13,722.23

Let X be the NAV on 31.03.2018, then number of new units reinvested will be  $Rs.13,722.23/X$ .

Accordingly, 6,271.98 units shall consist of reinvested units and 5277.78 (as on 31.03.2017).

Thus, by way of equation it can be shown as follows:

$$6,271.98 = \frac{13,722.23}{X} + 5,277.78$$

Therefore, NAV as on 31.03.2018 =  $13,722.23/(6,271.98 - 5,277.78) = 13.80$

NAV as on 31.03.2019 =  $50,000 (1+0.715 \times 33/12)/6,271.98 = 23.656$

**(6 MARKS)**

### **ANSWER – C**

Originator (entity which sells assets collectively to Special Purpose Vehicle) achieves the following benefits from securitization:

- (i) **Off – Balance Sheet Financing:** When loan/receivables are securitized it release a portion of capital tied up in these assets resulting in off Balance Sheet financing leading to improved liquidity position which helps expanding the business of the company.
- (ii) **More specialization in main business:** By transferring the assets the entity could concentrate more on core business as servicing of loan is transferred to SPV. Further, in case of non-recourse arrangement even the burden of default is shifted.
- (iii) **Helps to improve financial ratios:** Especially in case of Financial Institutions and Banks, it helps to manage Capital-To-Weighted Asset Ratio effectively.
- (iv) **Reduced borrowing Cost:** Since securitized papers are rated due to credit enhancement even they can also be issued at reduced rate as of debts and hence the originator earns a spread, resulting in reduced cost of borrowings.

**(4\*1 = 4 MARKS)**

**ANSWER – 3****ANSWER – A**

(i) Computation of Business Value

		(Rs. Lakhs)
Profit before tax	$\frac{77}{1-0.30}$	110
Less: Extraordinary income		(8)
Add: Extraordinary losses		<u>10</u>
		<b>112</b>
Profit from new product	(Rs. Lakhs)	
Sales	70	
Less: Material costs	20	
Labour costs	12	
Fixed costs	<u>10</u>	<u>(42)</u>
		<u>28</u>
		140.00
Less: Taxes @30%		<u>42.00</u>
Future Maintainable Profit after taxes		<u>98.00</u>
Relevant Capitalisation Factor		0.14
Value of Business (Rs.98/0.14)		700

**(5 MARKS)**(ii) **Determination of Market Price of Equity Share**

Future maintainable profits (After Tax)	Rs. 98,00,000
Less: Preference share dividends 1,00,000 shares of Rs.100 @ 13%	<u>Rs. 13,00,000</u>
Earnings available for Equity Shareholders	<u>Rs. 85,00,000</u>
No. of Equity Shares	50,00,000
Earning per share = $\frac{85,00,000}{50,00,000}$ =	Rs. 1.70

PE ratio	10
Market price per share	Rs. 17

(3 MARKS)

### ANSWER – B

#### (i) Current Market Price of Bond

Time	CF	PVIF 8%	PV (CF)	PV (CF)
1	14	0.926		12.964
2	14	0.857		11.998
3	14	0.794		11.116
4	14	0.735		10.290
5	114	0.681		<u>77.634</u>
			PV (CF) i.e. P0 =	<u>124.002</u>

Say

Rs. 124.00

(3 MARKS)

- (ii) Minimum Market Price of Equity Shares at which Bondholder should exercise conversion option:

$$\frac{124.00}{20.00} = \text{Rs. } 6.20$$

(2 MARKS)

- (iii) Duration of the Bond

Year	Cash flow	P.V. @ 8%		Proportion of bond value	Proportion of bond value x time (years)
1	14	0.926	12.964	0.105	0.105
2	14	0.857	11.998	0.097	0.194
3	14	0.794	11.116	0.089	0.267
4	14	0.735	10.290	0.083	0.332
5	114	0.681	<u>77.634</u>	<u>0.626</u>	<u>3.130</u>
			<u>124.002</u>	<u>1.000</u>	<u>4.028</u>

(3 MARKS)

### ANSWER – C

VAR is a measure of risk of investment. Given the normal market condition in a set of period, say, one day it estimates how much an investment might lose. This investment can be a portfolio, capital investment or foreign exchange etc., VAR answers two basic questions -

- (i) What is worst case scenario?
- (ii) What will be loss?

It was first applied in 1922 in New York Stock Exchange, entered the financial world in 1990s and become world's most widely used measure of financial risk.



**Following are main features of VAR**

- (i) Components of Calculations: VAR calculation is based on following three components:
  - (a) Time Period
  - (b) Confidence Level – Generally 95% and 99%
  - (c) Loss in percentage or in amount
- (ii) Statistical Method: It is a type of statistical tool based on Standard Deviation.
- (i) Time Horizon: VAR can be applied for different time horizons say one day, one week, one month and so on.
- (ii) Probability: Assuming the values are normally attributed, probability of maximum loss can be predicted.
- (iii) Control Risk: Risk can be controlled by setting limits for maximum loss.
- (iv) Z Score: Z Score indicates how many standard Deviations is away from Mean value of a population. When it is multiplied with Standard Deviation it provides VAR.

**(4 MARKS)**

**ANSWER – 4**

**ANSWER – A**

**(i) Swap Ratio**

Gross NPA	5:40	$5/40 \times 30\%$	0.0375
CAR	5:16	$5/16 \times 28\%$	0.0875
Market Price	12:96	$12/96 \times 32\%$	0.0400
Book Value Per Share	12:120	$12/120 \times 10\%$	0.0100
			0.1750

Thus for every share of Weak Bank, 0.1750 share of Strong Bank shall be issued.

Calculation of Book Value Per Share

Particulars	Weak Bank (W)	Strong Bank (S)
Share Capital (Rs. Lakhs)	150	500
Reserves & Surplus (Rs. Lakhs)	80	5,500
	230	6,000
Less: Preliminary Expenses (Rs. Lakhs)	50	--
Net Worth or Book Value (Rs. Lakhs)	180	6,000
No. of Outstanding Shares (Lakhs)	15	50
Book Value Per Share (Rs.)	12	120

**(3 MARKS)**

(ii) No. of equity shares to be issued:  $= \frac{150}{10} \times 0.1750 = 2.625$  lakh shares

**(iii) Balance Sheet after Merger**

Calculation of Capital Reserve

Book Value of Shares                      Rs. 180.00 lac  
 Less: Value of Shares issued    Rs. 26.25 lac  
 Capital Reserve                                Rs. 153.75 lac

**Balance Sheet**

	Rs. lac		Rs. lac
Paid up Share Capital	526.25	Cash in Hand & RBI	2900.00
Reserves & Surplus	5500.00	Balance with other banks	2000.00
Capital Reserve	153.75	Investment	20100.00
Deposits	48000.00	Advances	30500.00
Other Liabilities	3390.00	Other Assets	2070.00
	<b>57570.00</b>		<b>57570.00</b>

**(3 MARKS)**

**(iv) Calculation of CAR & Gross NPA % of Bank 'S' after merger**

$$\text{CAR / CRWAR} = \frac{\text{Total Capital}}{\text{Risky Weighted Assets}}$$

	Weak Bank	Strong Bank	Merged
	5%	16%	
Total Capital	Rs. 180 lac	Rs. 6000 lac	Rs. 6180 lac
Risky Weighted Assets	Rs. 3600 lac	Rs. 37500 lac	Rs. 41100 lac

$$\text{CAR} = \frac{6180}{41100} \times 100 = 15.04\%$$

$$\text{GNPA Ratio} = \frac{\text{Gross NPA}}{\text{Gross Advances}} \times 100$$

	Weak Bank	Strong Bank	Merged
GNPA (Given)	0.40	0.05	
	$0.40 = \frac{\text{GNPA}_R}{\text{₹ 3500 lac}}$	$0.05 = \frac{\text{GNPA}_S}{\text{₹ 27000 lac}}$	
Gross NPA	Rs. 1400 lac	Rs. 1350 lac	Rs. 2750 lac

(2 MARKS)

### ANSWER – B

#### Working Notes:

(i) Computation of Forward Rates

End of Year	NC	NC/₹
1	$\text{NC}1.60 \times \left( \frac{(1+0.09)}{(1+0.08)} \right)$	1.615
2	$\text{NC}1.615 \times \left( \frac{(1+0.09)}{(1+0.08)} \right)$	1.630
3	$\text{NC}1.630 \times \left( \frac{(1+0.09)}{(1+0.08)} \right)$	1.645

(ii) NC Cash Flows converted in Indian Rupees

Year	NC (Million)	Conversion Rate	₹ (Million)
0	-25.00	1.600	-15.625
1	2.60	1.615	1.61
2	3.80	1.630	2.33
3	4.10	1.645	2.49

#### Net Present Value

(₹ Million)					
Year	Cash Flow in India	Cash Flow in Nepal	Total	PVF @ 9%	PV
0	---	-15.625	-15.625	1.000	-15.625
1	2.869	1.61	4.479	0.917	4.107
2	4.200	2.33	6.53	0.842	5.498
3	4.600	2.49	7.09	0.772	5.473
					-0.547

### Modified Internal Rate of Return

	Year			
	0	1	2	3
Cash Flow (₹ Million)	-15.625	4.479	6.53	7.09
Year 1 Cash Inflow reinvested for 2 years (1.188 x 4.479)				5.32
Year 2 Cash Inflow reinvested for 1 years (1.090 x 6.53)				7.12
				19.53

$$\text{MIRR} = \sqrt[n]{\frac{\text{Terminal Cash Flow}}{\text{Initial Outlay}}} - 1 = \sqrt[3]{\frac{19.53}{15.625}} - 1 = 0.0772 \text{ say } 7.72\%$$

(8 MARKS)

### ANSWER – C

$$\text{No. of Shares} = \frac{\text{₹ } 1,300 \text{ crores}}{\text{₹ } 40} = 32.5 \text{ Crores}$$

$$\text{EPS} = \frac{\text{PAT}}{\text{No. of shares}}$$

$$\text{EPS} = \frac{\text{₹ } 290 \text{ crores}}{32.5 \text{ crores}} = \text{₹ } 8.923$$

$$\text{FCFE} = \text{Net income} - [(1-b) (\text{capex} - \text{dep}) + (1-b) (\Delta \text{WC})]$$

$$\begin{aligned} \text{FCFE} &= 8.923 - [(1-0.27) (47-39) + (1-0.27) (3.45)] \\ &= 8.923 - [5.84 + 2.5185] = 0.5645 \end{aligned}$$

$$\text{Cost of Equity} = R_f + \beta (R_m - R_f)$$

$$= 8.7 + 0.1 (10.3 - 8.7) = 8.86\%$$

$$P_0 = \frac{\text{FCFE}(1+g)}{K_e - g} = \frac{0.5645(1.08)}{0.0886 - 0.08} = \frac{0.60966}{0.0086} = \text{₹ } 70.89$$

**ANSWER – 5****ANSWER – A**

$$\text{Initial Margin} = \mu + 3 \sigma$$

Where  $\mu$  = Daily Absolute Change

$\sigma$  = Standard Deviation

Accordingly;

$$\text{Initial Margin} = \text{Rs. } 10,000 + \text{Rs. } 6,000 = \text{Rs. } 16,000$$

$$\text{Maintenance margin} = \text{Rs. } 16,000 \times 0.75 = \text{Rs. } 12,000$$

Day	Changes in future Values (Rs.)	Margin A/c (Rs.)	Call Money (Rs.)
4/2/09	-	16000	-
5/2/09	$50 \times (3294.40 - 3296.50) = -105$	15895	-
6/2/09	$50 \times (3230.40 - 3294.40) = -3200$	12695	-
7/2/09	$50 \times (3212.30 - 3230.40) = -905$	16000	4210
10/2/09	$50 \times (3267.50 - 3212.30) = 2760$	18760	-
11/2/09	$50 \times (3263.80 - 3267.50) = -185$	18575	-
12/2/09	$50 \times (3292 - 3263.80) = 1410$	19985	-
14/2/09	$50 \times (3309.30 - 3292) = 865$	20850	-
17/2/09	$50 \times (3257.80 - 3309.30) = -2575$	18275	-
18/2/09	$50 \times (3102.60 - 3257.80) = -7760$	16000	5485

(8 MARKS)

**ANSWER – B**

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. $\frac{1}{1.0225} = 0.9779951$		
Spot rate purchase	GBP 0.64033	
Borrow GBP 3,56,867 x 0.64033		GBP 2,28,512
Interest for 6 months @ 7 %		7,998
		-
Payable after 6 months		<u>GBP 2,36,510</u>

**iii. Currency options**

Amount payable	USD 3,64,897
Unit in Options contract	GBP 12,500
Value in USD at strike rate of 1.70 (GBP 12,500 x 1.70)	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 GBP 12,500 x 0.096 USD	20,400
Premium in GBP (USD 20,400 x 0.64033)	GBP 13,063
Total payment in currency option	
Payment under option (17 x 12,500)	GBP 2,12,500
Premium payable	GBP 13,063
Payment for forward cover (USD 3,647 x 0.64704)	<u>GBP 2,360</u>

Thus total payment in:

- (i) Forward Cover 2,36,103 GBP
- (ii) Money Market 2,36,510 GBP
- (iii) Currency Option 2,27,923 GBP

The company should take currency option for hedging the risk.

**Note:** Even interest on Option Premium can also be considered in the above solution.

**(8 MARKS)**

**ANSWER – C**

**Return of the stock under APT**

<i>Factor</i>	<i>Actual value in %</i>	<i>Expected value in %</i>	<i>Difference</i>	<i>Beta</i>	<i>Diff. x Beta</i>
GNP	7.70	7.70	0.00	1.20	0.00
Inflation	7.00	5.50	1.50	1.75	2.63
Interest rate	9.00	7.75	1.25	1.30	1.63
Stock index	12.00	10.00	2.00	1.70	3.40
Ind. Production	7.50	7.00	0.50	1.00	0.50
					8.16
Risk free rate in %					9.25
Return under APT					17.41

**(4 MARKS)**

**ANSWER – 6**

**ANSWER – A**

- (i) For 3 months,  $r_{CAD} = 2.25\%$  and  $r_{DEM} = 1.75\%$ . Since the exchange rate is in CAD/ DEM term the appropriate equation for Interest Rate Parity is as follows:

$$\frac{F}{S} = \frac{(1 + r_{CAD})}{(1 + r_{DEM})}$$

$$\frac{0.780}{0.775} = \frac{(1 + 0.0225)}{(1 + 0.0175)}$$

$$1.00645 \neq 1.00491$$

Since both sides are not equal, Interest Rate Parity does not hold.

**(3 MARKS)**

- (ii) Since IRP does not hold there is an arbitrage opportunity.

$$\text{Interest Differential} = 2.25\% - 1.75\% = 0.50\%$$

$$\text{Premium} = \frac{0.780 - 0.775}{0.775} \times 100 = 0.645\%$$

Since the interest rate differential is smaller than the premium, it will be profitable to place money in Deutschmarks the currency whose 3-months interest is lower.

The following operations are carried out:

- (i) Borrow CAD 1 Million at 9 per cent for 3- months;
- (ii) Change this sum into DEM at the spot rate  
 $= (1,000,000/0.775) = 1,290,323$
- (iii) Place DM 1,290,323 in the money market for 3 months to obtain a sum of DM Principal: 1,290,323  
 Add: Interest @ 7% for 3 months = 22,581  
 Total 1,312,904
- (iv) Sell DEM at 3-months forward to obtain CAD =  $(1,312,904 \times 0.780) = \text{CAD } 1,024,065$
- (v) Refund the debt taken in CAD with the interest due on it, i.e.,

	CAD
Principal	1,000,000
Add: Interest @9% for 3 months	<u>22,500</u>
Total	<u>1,022,500</u>

Net arbitrage gain = CAD 1,024,065 – CAD 1,022,500 = CAD 1,565

**(5 MARKS)**

**ANSWER – B**

- (i) DEF Bank will fix interest rate for 2V3 FRA after 2 years as follows:

XYZ Ltd.

$$(1+r) (1+0.0420)^2 = (1+0.0448)^3$$

$$(1+r) (1.0420)^2 = (1.0448)^3$$

$$r = 5.04\%$$

Bank will quote 5.04% for a 2V3 FRA.

ABC Ltd.

$$(1+r) (1+0.0548)^2 = (1+0.0578)^3$$

$$(1+r) (1.0548)^2 = (1.0578)^3$$

$$r = 6.38\%$$



Bank will quote 6.38% for a 2V3 FRA.

(4 MARKS)

(ii)

		4.50% - Allow to Lapse	5.50%-Exercise
Interest	Rs.100 crores X 4.50%	Rs. 4.50 crores	-
	Rs.100 crores X 5.04%	-	Rs. 5.04 crores
Premium (Cost of Option)	Rs.100 crores X 0.1%	Rs. <u>0.10 crores</u>	Rs. <u>0.10 crores</u>
		<u>4.60 crores</u>	<u>5.14 crores</u>

(4 MARKS)

## ANSWER – C

The difference between Management Buy Outs and Leveraged Buy Outs has been discussed as below:

### Management Buy Outs

Buyouts initiated by the management team of a company are known as a management buyout. In this type of acquisition, the company is bought by its own management team.

MBOs are considered as a useful strategy for exiting those divisions that does not form part of the core business of the entity.

### Leveraged Buyout (LBO)

An acquisition of a company or a division of another company which is financed entirely or partially (50% or more) using borrowed funds is termed as a leveraged buyout. The target company no longer remains public after the leveraged buyout; hence the transaction is also known as going private. The deal is usually secured by the acquired firm's physical assets.

The intention behind an LBO transaction is to improve the operational efficiency of a firm and increase the volume of its sales, thereby increasing the cash flow of the firm. This extra cash flow generated will be used to pay back the debt in LBO transaction. After an, LBO the target entity is managed by private investors, which makes it easier to have a close control of its operational activities. The LBOs do not stay permanent. Once the LBO is successful in increasing its profit margin and improving its operational efficiency and the debt is paid back, it will go public again. Companies that are in a leading market position with proven demand for product, have a strong management team, strong relationships with key customers and

suppliers and steady growth are likely to become the target for LBOs. In India the first LBO took place in the year 2000 when Tata Tea acquired Tetley in the United Kingdom. The deal value was Rs. 2135 crores out of which almost 77% was financed by the company using debt. The intention behind this deal was to get direct access to Tetley's international market. The largest LBO deal in terms of deal value (7.6 Billion) by an Indian company is the buyout of Corus by Tata Steel.

**(4 MARKS)**