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SUGGESTED SOLUTION

CA FINAL

SUBJECT-SFM

Test Code – FNJ 7389

BRANCH - () (Date :)

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- NOTES:**
- (1) WORKING NOTES SHOULD FORM PART OF ANSWERS.
 - (2) INTERNAL WORKING NOTES SHOULD ALSO BE CONSIDERED BY PAPER CHECKER.
 - (3) NEW QUESTION SHOULD BE ON NEW PAGE

Answer No.1

(A)

As per T Ltd. Rs. Offer

	Rs. in lakhs
(i) Net Consideration Payable	
7 times EBIDAT, i.e. 7 x Rs. 115.71 lakh	809.97
Less: Debt	240.00
	569.97
(ii) No. of shares to be issued by T Ltd	
Rs. 569.97 lakh/ Rs. 220 (rounded off) (Nos.)	2,59,000
(iii) EPS of T Ltd after acquisition	
Total EBIDT (Rs. 400.86 lakh + Rs. 115.71 lakh)	516.57
Less: Interest (Rs. 58 lakh + Rs. 30 lakh)	88.00
	428.57
Less: 30% Tax	128.57
Total earnings (NPAT)	300.00
Total no. of shares outstanding	14.59 lakh
(12 lakh + 2.59 lakh)	
EPS (Rs. 300 lakh/ 14.59 lakh)	Rs. 20.56

(3 Marks)

(iv) Expected Market Price:

	Rs. in lakhs
Pre-acquisition P/E multiple:	
EBIDAT	400.86
Less: Interest ($580 \times \frac{10}{100}$)	58.00
	342.86
Less: 30% Tax	102.86
	240.00
No. of shares (lakhs)	12.00
EPS	Rs. 20.00
Hence, PE multiple $\frac{220}{20}$	11
Expected market price after acquisition (Rs. 20.56 x 11)	Rs. 226.16

(3 Marks)

As per E Ltd Rs.s Plan

	Rs. in lakhs
(i) Net consideration payable	
6 lakhs shares x Rs. 110	660
(ii) No. of shares to be issued by T Ltd	
Rs. 660 lakhs ÷ Rs. 220	3 lakh
(iii) EPS of T Ltd after Acquisition	
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
(iv) Expected Market Price (Rs. 20 x 11)	220.00

(2 Marks)**(B)**

Final settlement amount shall be computed by using formula:

$$= \frac{(N)(RR-FR)(dtm/DY)}{[1+RR(dtm/DY)]}$$

Where,

N = the notional principal amount of the agreement;

RR = Reference Rate for the maturity specified by the contract prevailing on the contract settlement date;

FR = Agreed-upon Forward Rate; and

dtm = maturity of the forward rate, specified in days (FRA Days)

DY = Day count basis applicable to money market transactions which could be 360 or 365 days.

Accordingly,

If actual rate of interest after 6 months happens to be 9.60%

$$= \frac{(\text{Rs.60 Crore})(0.096-0.093)(3/12)}{[1+0.096(3/12)]}$$

$$= \frac{(\text{Rs.60 Crore})(0.00075)}{1.024} = \text{Rs.4,39,453}$$

Thus, banker will pay Parker & Co. a sum of Rs. 4,39,453

If actual rate of interest after 6 months happens to be 8.80%

$$= \frac{(\text{Rs.60 Crore})(0.088-0.093)(3/12)}{[1+0.088(3/12)]}$$

$$= \frac{(\text{Rs.60 Crore})(-0.00125)}{1.022} = -\text{Rs.7,33,855}$$

Thus Parker & Co. will pay banker a sum of Rs. 7,33,855

Actual Rate	9.60%	8.80%
Interest payable		
Rs. 60 crore x 0.096 x 3/12	(Rs.1,44,00,000)	
Rs. 60 crore x 0.088 x 3/12		(Rs.1,32,00,000)
Compensation Receivable: Rs. 60 crore x (0.096 – 0.093) x 3/12	Rs. 4,50,000	
Compensation Payable: Rs. 60 crore x (0.088 – 0.093) x 3/12		(Rs. 7,50,000)
Interest Cost to Company (In Rs.)	Rs. 1,39,50,000	Rs. 1,39,50,000
Annual Interest Cost to Company (In %)(Rs. 1,39,50,000/ Rs. 60crore) x 12/3	9.30%	9.30%

(8 Marks)

(C)

Characteristics of Venture Capital Financing:

- (i) Long time horizon: The fund would invest with a long time horizon in mind. Minimum period of investment would be 3 years and maximum period can be 10 years.
- (ii) Lack of liquidity: When VC invests, it takes into account the liquidity factor. It assumes that there would be less liquidity on the equity it gets and accordingly it would be investing in that format. They adjust this liquidity premium against the price and required return.
- (iii) High Risk: VC would not hesitate to take risk. It works on principle of high risk and high return. So, high risk would not eliminate the investment choice for a venture capital.
- (iv) Equity Participation: Most of the time, VC would be investing in the form of equity of a company. This would help the VC participate in the management and help the company grow. Besides, a lot of board decisions can be supervised by the VC if they participate in the equity of a company.

(4 Marks)

Answer No.2

(A)

- (i) **Return of Mrs. Charu invested in Plan A (Dividend Reinvestment) (Amount in Rs.)**

Date	Investment	Dividend payout(%)	Dividend Re-invested (Closing Units X Facevalue of Rs.10X DividendPayout %)	NAV	Units	Closing Unit Balance” Units
01.04.2009	1,00,000.00			10.00	10,000.00	10,000.00
28.07.2013		20	20,000.00	30.70	651.47	10,651.47
31.03.2014		70	74,560.29	58.42	1,276.28	11,927.75
31.10.2017		40	47,711.00	42.18	1,131.13	13,058.88
15.03.2018		25	32,647.20	46.45	702.85	13,761.73
24.03.2019		40	55,046.92	48.10	1,144.43	14,906.16

Redemption value 14,906.16 x 53.75	8,01,206.10
Less: Security Transaction Tax (STT) is 0.2%	<u>1,602.41</u>
Net amount received	7,99,603.69
Less: Short term capital gain tax @ 10% on 1,144.43 (53.75 – 48.10 ≈) = 6,466	<u>647</u>
Net of tax	7,98,956.69
Less: Investment	<u>1,00,000.00</u>
	<u>6,98,956.69</u>
Annual average return (%) $\frac{6,98,956.69}{1,00,000} \times \frac{12}{124} \times 100 = 67.64\%$	

(3.5 Marks)

(ii) Return of Mr. Anand invested in Plan B – (Bonus)

(Amount in Rs.)				
Date	Units	Bonus units	Total Balance	NAV per unit
01.04.2009	10,000		10,000	10
31.03.2014		12,500	22,500	31.05
31.03.2018		7,500	30,000	20.05
24.03.2019		7,500	37,500	19.95

Redemption value 37,500 x 22.98	8,61,750.00
Less: Security Transaction Tax (STT) is 0.2%	<u>1,723.50</u>
Net amount received	8,60,026.50
Less: Short term capital gain tax @ 10% 7,500 x (22.98 – 0) = 1,72,350	<u>17,235.00</u>
Net of tax	8,42,791.50
Less: Investment	<u>1,00,000.00</u>
Net gain	<u>7,42,791.50</u>

Annual average return (%) $\frac{7,42,791.5}{1,00,000} \times \frac{12}{124} \times 100 = 71.88\%$

(3.5 Marks)

(iii) Return of Mr. Bacchan invested in Plan C – (Growth)

Particulars	(Amount in Rs.)
Redemption value 10,000 x 82.07	8,20,700.00
Less: Security Transaction Tax (S.T.T) is .2%	1,641.40
Net amount received	8,19,058.60
Less: Short term capital gain tax @ 10%	0.00
Net of tax	8,19,058.60
Less: Investment	1,00,000.00
Net gain	7,19,058.60

$$\text{Annual average return (\%)} = \frac{7,19,058}{1,00,000} \times \frac{12}{124} \times 100 = 69.59\%$$

(3 Marks)

(B)

(i) Future Price = Spot + Cost of Carry – Dividend

$$= \text{Rs.}125 + (\text{Rs.}125 \times 0.08) - 4 = \text{Rs.}131$$

$$\text{Price of one future contract} = 1000 \text{ share} \times \text{Rs. } 131 = \text{Rs.}1,31,000$$

(2 Marks)

(ii) Price decrease by 6 %

$$\text{Market Price} = 125 \times 94\% = 117.50 \text{ Then,}$$

price of one future contract

$$= \text{Rs. } 117.50 + (\text{Rs.}117.50 \times 0.08) - 4 = \text{Rs. } 122.90$$

$$= \text{Rs. } 122.90 \times 1000 = \text{Rs.}1,22,900$$

(2 Marks)

(iii) If the investor has taken a long position, decrease in price will result in loss for the investor.

Amount of loss will be:

$$\text{Rs. } 1,31,000 - \text{Rs.}1,22,900 = \text{Rs.}8,100$$

(2 Marks)

(C)

The various steps in securitization mechanism are discussed as below:

Creation of Pool of Assets

The process of securitization begins with creation of pool of assets by segregation of assets backed by similar type of mortgages in terms of interest rate, risk, maturity and concentration units.

Transfer to SPV

One assets have been pooled, they are transferred to Special Purpose Vehicle (SPV) especially created for this purpose.

Sale of Securitized Papers

SPV designs the instruments based on nature of interest, risk, tenure etc. based on pool of assets. These instruments can be Pass Through Security or Pay Through Certificates, (discussed later).

Administration of assets

The administration of assets is subcontracted back to originator which collects principal and interest from underlying assets and transfer it to SPV, which works as a conduit.

Recourse to Originator

Performance of securitized papers depends on the performance of underlying assets and unless specified in case of default they go back to originator from SPV.

Repayment of funds

SPV will repay the funds in form of interest and principal that arises from the assets pooled.

Credit Rating to Instruments

Sometime before the sale of securitized instruments credit rating can be done to assess the risk of the issuer.

(4 Marks)

Answer No.3

(A)

$$\text{Maximum decline in one month} = \frac{5326 - 4793.40}{5326} \times 100 = 10\%$$

(1) Immediately to start with

$$\begin{aligned} \text{Investment in equity} &= \text{Multiplier} \times (\text{Portfolio value} - \text{Floor value}) \\ &= 2 (3,00,000 - 2,70,000) = \text{Rs. } 60,000 \end{aligned}$$

Indira may invest Rs. 60,000 in equity and balance in risk free securities.

(2 Marks)

(2) After 10 days

Value of equity = $60,000 \times 5122.96/5326$	= Rs. 57,713
Value of risk free investment	= Rs. 2,40,000
Total value of portfolio	= Rs. 2,97,713

$$\text{Investment in equity} = \text{Multiplier} \times (\text{Portfolio value} - \text{Floor Value})$$

$$= 2 (2,97,713 - 2,70,000) = \text{Rs. } 55,426$$

Revised Portfolio :

$$\text{Equity} = \text{Rs. } 55,426$$

$$\text{Risk free Securities} = \text{Rs. } 2,97,713 - \text{Rs. } 55,426 = \text{Rs. } 2,42,287$$

(3 Marks)

(3) After another 10 days

Value of equity = $55,426 \times 5539.04/5122.96$	= Rs. 59,928
Value of risk free investment	= Rs. 2,42,287
Total value of portfolio	= Rs. 3,02,215

$$\text{Investment in equity} = \text{Multiplier} \times (\text{Portfolio value} - \text{Floor value})$$

$$= 2 (3,02,215 - 2,70,000) = \text{Rs. } 64,430$$

Revised Portfolio :

$$\text{Equity} = \text{Rs. } 64,430$$

$$\text{Risk Free Securities} = \text{Rs. } 3,02,215 - \text{Rs. } 64,430 = \text{Rs. } 2,37,785$$

The investor should off – load Rs. 4502 of risk free securities and divert to Equity.

(3 Marks)

(B)

Date	1 Sensex	2 EMA for Previous day	3 1-2	4 3×0.064	5 EMA 2 ± 4
6	34522	35000	(478)	(30.592)	34969.408
7	34925	34,969.408	(44.408)	(2.842)	34966.566
10	35222	34966.566	255.434	16.348	34982.914
11	36000	34982.914	1017.086	65.094	35048.008
12	36400	35048.008	1351.992	86.527	35134.535
13	37000	35134.535	1865.465	119.390	35253.925
17	38000	35253.925	2746.075	175.749	35429.674

Conclusion – The market is bullish. The market is likely to remain bullish for short term to medium term if other factors remain the same. On the basis of this indicator (EMA) the investors/brokers can take long position.

(8 Marks)

(C)

Some of the innovative steps to finance a startup are as follows:

- (i) **Personal financing.** It may not seem to be innovative but you may be surprised to note that most budding entrepreneurs never thought of saving any money to start a business. This is important because most of the investors will not put money into a deal if they see that you have not contributed any money from your personal sources.
- (ii) **Personal credit lines.** One qualifies for personal credit line based on one's personal credit efforts. Credit cards are a good example of this. However, banks are very cautious while granting personal credit lines. They provide this facility only when the business has enough cash flow to repay the line of credit.
- (iii) **Family and friends.** These are the people who generally believe in you, without even thinking that your idea works or not. However, the loan obligations to friends and relatives should always be in writing as a promissory note or otherwise.
- (iv) **Peer-to-peer lending.** In this process group of people come together and lend money to each other. Peer to peer to lending has been there for many years. Many small and ethnic business groups having similar faith or interest generally support each other in their start up endeavors.
- (v) **Crowdfunding.** Crowdfunding is the use of small amounts of capital from a large number of individuals to finance a new business initiative. Crowdfunding makes use of the easy accessibility of vast networks of people through social media and crowdfunding websites to bring investors and entrepreneurs together.
- (vi) **Microloans.** Microloans are small loans that are given by individuals at a lower interest to a new business ventures. These loans can be issued by a single individual or aggregated across a number of individuals who each contribute a portion of the total

amount.

- (vii) **Vendor financing.** Vendor financing is the form of financing in which a company lends money to one of its customers so that he can buy products from the company itself. Vendor financing also takes place when many manufacturers and distributors are convinced to defer payment until the goods are sold. This means extending the payment terms to a longer period for e.g. 30 days payment period can be extended to 45 days or 60 days. However, this depends on one's credit worthiness and payment of more money.
- (viii) **Purchase order financing.** The most common scaling problem faced by startups is the inability to find a large new order. The reason is that they don't have the necessary cash to produce and deliver the product. Purchase order financing companies often advance the required funds directly to the supplier. This allows the transaction to complete and profit to flow up to the new business.
- (ix) **Factoring accounts receivables.** In this method, a facility is given to the seller who has sold the good on credit to fund his receivables till the amount is fully received. So, when the goods are sold on credit, and the credit period (i.e. the date upto which payment shall be made) is for example 6 months, factor will pay most of the sold amount up front and rest of the amount later. Therefore, in this way, a startup can meet his day to day expenses.

(4 Marks)

Answer No.4

(A)

(i) **Value of Firm**

Year	Cash Flow (Rs. in lakhs)	PVF	PV (Rs.in lakhs)
1	1760	0.833	1466.08
2	480	0.694	333.12
3	640	0.579	370.56
4	860	0.482	414.52
5	1170	0.402	470.34
PV of Cash flows upto year 5			3054.62

If PV of Terminal Value is considered with the growth rate (at the end of 5th year)

$$= \frac{10,260 (1 + 0.08)}{0.20 - 0.08} = \frac{11,080.80}{0.12}$$

$$= \text{Rs. } 92,340 \text{ Lakh}$$

Now, PV (at the beginning of the year)

$$= \text{Rs. } 92,340 \times 0.402 = \text{Rs. } 37,120.68 \text{ Lakhs}$$

So, Present Value of the firm = Rs.3054.62 + Rs.37120.68 = Rs.40175.30 Lakhs

(5 Marks)

(ii) **Value per share**

$$= \text{Value of Firm} - \text{Value of Debt} / \text{No of shares}$$

$$= (40175.30 - 3620)/151.50 = \text{Rs. } 241.29$$

(1.5 Marks)

(iii) Takeover bid of Rs. 225 per share seems to be not a good offer as it is lesser than the intrinsic value i.e. value per share of Rs.241.29.

(1.5 Marks)

(B)

Calculation of NPV

Year	0	1	2	3
Inflation factor in India	1.00	1.10	1.21	1.331
Inflation factor in Africa	1.00	1.40	1.96	2.744
Exchange Rate (as per IRP)	6.00	7.6364	9.7190	12.3696
Cash Flows in Rs.'000				
Real	-50000	-1500	-2000	-2500
Nominal (1)	-50000	-1650	-2420	-3327.50
Cash Flows in African Rand '000				
Real	-200000	50000	70000	90000
Nominal	-200000	70000	137200	246960
In Indian Rs. '000 (2)	-33333	9167	14117	19965
Net Cash Flow in Rs. '000 (1)+(2)	-83333	7517	11697	16637
PVF@20%	1	0.833	0.694	0.579
PV	-83333	6262	8118	9633

NPV of 3 years = -59320 (Rs. '000)

NPV of Terminal Value = $(16637 / 0.20) \times 0.579 = 48164$ (Rs. '000)

Total NPV of the Project = -59320 (Rs. '000) + 48164 (Rs.'000) = -11156 (Rs.'000)

(8 Marks)

(C)

Volatility (standard deviation) of the daily change in the investment in each share in terms of rupees-

1% of Rs. 200 lakh = Rs. 2 lakh

The variance of the portfolio's daily change - V

$$= 2^2 + 2^2 + 2 \times 0.3 \times 2 \times 2 = 10.4 \text{ lakh}$$

Standard Deviation of the portfolio's daily change = $\sqrt{10.4}$ = Rs. 3.2249 lakhs

The standard deviation of the 10-day change

$$= \text{Rs. } 3.2249 \text{ lakhs} \times \sqrt{10} = \text{Rs. } 10.1981 \text{ lakhs}$$

Therefore, the 10-days 99% VAR = $2.33 \times \text{Rs. } 10.1981 \text{ lakhs} = \text{Rs. } 23.7616 \text{ lakhs}$

(4 Marks)

Answer No.5

(A)

Calculation of return on portfolio for 2009 – 10	(Calculation in Rs./ share)		
	M	N	
Dividend received during the year	10	3	7.55%
Capital gain /loss by 31.03.10			
Market value by 31.03.10	220	290	
Cost of investment	200	300	
Gain/loss	20	(-) 10	
Yield	30	(-) 7	
Cost	200	300	
% return	15%	(-) 2.33%	
Weight in the portfolio	57	43	
Weighted average return			
Calculation of estimated return for 2010 – 11			18.02%
Expected dividend	20	3.5	
Capital gain by 31.03.11			
$(220 \times 0.2) + (250 \times 0.5) + (280 \times 0.3) - 220 = (253 - 220)$	33	-	
$(290 \times 0.2) + (310 \times 0.5) + (330 \times 0.3) - 290 = (312 - 290)$	-	22	
Yield	53	25.5	
* Market Value 01.04.10	220	290	
% return	24.09%	8.79%	
*Weight in portfolio $(1,000 \times 220) : (500 \times 290)$	60.3	39.7	
Weighted average (Expected) return			
(*The market value on 31.03.10 is used as the base for calculating yield for 10 – 11)			

(4 Marks)

Calculation of Standard Deviation

M Ltd.

Exp. Market value	Exp. Gain	Exp. Div.	Exp. yield (1)	Prob. Factor (2)	(1) × (2)	Dev. $(P_M - \bar{P}_M)$	Square of dev. (3)	(2) × (3)
220	0	20	20	0.2	4	-33	1089	217.80
250	30	20	50	0.5	25	-3	9	4.50
280	60	20	80	0.3	24	27	729	218.70
					53			$\sigma_M^2 = 441.00$

Standard Deviation (σ_M)

21

(2 Marks)

N Ltd.

Exp. Market value	Exp. Gain	Exp. Div.	Exp. yield (1)	Prob. Factor (2)	(1) × (2)	Dev. $(P_N - \bar{P}_N)$	Square of dev. (3)	(2) × (3)
290	0	3.5	3.5	0.2	0.7	-22	484	96.80
310	20	3.5	23.5	0.5	11.75	-2	4	2.00
330	40	3.5	43.5	0.3	13.05	18	324	97.20
					25.5			$\sigma_N^2 = 196.00$

Standard Deviation (σ_N)

14

Share of company M Ltd. is more risky as the S.D. is more than company N Ltd.

(2 Marks)

(B)

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

(0.5 Mark)

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 (\$500Million/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

(2.5 Marks)

(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

(2 Marks)

(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.

(2 Marks)

(C)

The concept of sustainable growth can be helpful for planning healthy corporate growth. This concept forces managers to consider the financial consequences of sales increases and to set sales growth goals that are consistent with the operating and financial policies of the firm. Often, a conflict can arise if growth objectives are not consistent with the value of the organization's sustainable growth. Question concerning right distribution of resources may take a difficult shape if we take into consideration the rightness not for the current stakeholders but for the future stakeholders also. To take an illustration, let us refer to fuel industry where resources are limited in quantity and a judicious use of resources is needed to cater to the need of the future customers along with the need of the present customers. One may have noticed the save fuel campaign, a demarketing campaign that deviates from the usual approach of sales growth strategy and preaches for conservation of fuel for their use across generation. This is an example of stable growth strategy adopted by the oil industry as a whole under resource constraints and the long run objective of survival over years. Incremental growth strategy, profit strategy and pause strategy are other variants of stable growth strategy.

Sustainable growth is important to enterprise long-term development. Too fast or too slow growth will go against enterprise growth and development, so financial should play important role in enterprise development, adopt suitable financial policy initiative to make sure enterprise growth speed close to sustainable growth ratio and have sustainable healthy development.

(4 Marks)

Answer No.6

(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	400000	0.3333	1.2	0.400
			<u>1200000</u>	1		<u>1.108</u>

Portfolio beta

1.108

(2 Marks)

- (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

(3 Marks)

- (i) 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

(3 Marks)

(B)

Working Notes:

	Day Ltd.	Night Ltd.
Net Earnings	Rs. 5 crores	Rs. 3.5 crores
No. of Equity Shares	10,00,000	7,00,000
EPS	50	50
P/E	20 times	15 times
MPS	Rs. 1000	Rs. 750
Market Value	1,00,00,00,000	52,50,00,000

(2 Marks)

(i) **If takeover is funded by Cash**

Since Market Price of Night Ltd. reflects its full value, cost of takeover to Day Ltd is 55 crore – 52.50 crore = Rs. 2.5 crore.

(ii) **If the takeover is funded by stock**

Number of shares to be issued to Night Ltd.

= Rs. 55 Crore/ Rs.1000 = 550000 Lakhs

Market Value of Merged Firm = Rs. 1,00,00,00,000 + Rs. 52,50,00,000

= Rs. 1,52,50,00,000 i.e. Rs.152.50 Crore

Proportion that Night Ltd.'s shareholders get in Day Ltd.'s Capital Structure will be:

$$= \frac{5.5 \text{ Lakhs}}{5.5 \text{ Lakhs} + 10 \text{ Lakhs}}$$

True Cost of Merger = Rs. 152.50 Crore x 0.3548 – Rs.55 Crore

= -Rs. 0.893 Crore

Since true cost is negative in case of funding from stock, Day Ltd. would better off by funding the takeover by stock.

(6 Marks)

(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 releases 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 in case of debts and, hence, the originator earns a spread, resulting in reduced cost of borrowings.

(4 Marks)

OR

(C)

Following are main problems faced in growth of Securitization of instruments especially in Indian context:

1) Stamp Duty

Stamp Duty is one of the obstacle in India. Under Transfer of Property Act, 1882, a mortgage debt stamp duty which even goes upto 12% in some states of India and this impeded the growth of securitization in India. It should be noted that since pass through certificate does not evidence any debt only able to receivable, they are exempted from stamp duty. Moreover, in India, recognizing the special nature of securitized instruments in some states has reduced the stamp duty on them.

2) Taxation

Taxation is another area of concern in India. In the absence of any specific provision relating to securitized instruments in Income Tax Act experts' opinion differ a lot. Some are of opinion that SPV as a trustee is liable to be taxed in a representative capacity then others are of view that instead of SPV, investors will be taxed on their share of income. Clarity is also required on the issues of capital gain implications on passing payments to the investors.

3) Accounting

Accounting and reporting of securitized assets in the books of originator is another area of concern. Although securitization is slated to be an off-balance sheet instrument but in true sense receivables are removed from originator's balance sheet. Problem arises especially when assets are transferred without recourse.

4) Lack of standardization

Every originator following his own format for documentation and administration having lack of standardization is another obstacle in the growth of securitization.

5) Inadequate Debt Market

Lack of existence of a well-developed debt market in India is another obstacle that hinders the growth of secondary market of securitized or asset backed securities.

6) Ineffective Foreclosure laws

For many years efforts are on for effective foreclosure but still foreclosure laws are not supportive to lending institutions and this makes securitized instruments especially mortgaged backed securities less attractive as lenders face difficulty in transfer of property in event of default by the borrower.

(4 Marks)