



PAPER – 2

ADVANCED FINANCIAL MANAGEMENT



QUESTIONS

Risk Management

1. Mr. Y is a rational risk taker. He takes his position in derivative market of a single stock through margin trading for 4 days in a week. He does not take a position on Friday to avoid weekend effect and takes position only for four days in a week i.e. Monday to Thursday. He transfers the amount on Monday morning and withdraws the balance on Friday morning. He desires to take a maximum exposure in the derivative market where Value at Risk (VAR) should not exceed the balance lying in his bank account. The position by his manager, as per standing instructions, is taken on the free balance lying in the bank account in the morning on each Monday.

On Monday morning (before opening of the capital market) he has transferred an amount of ₹ 11 Crore to his bank account. A fixed deposit also matured on this Monday. The maturity amount of ₹ 63,42,560 was also credited to his account by the bank in the morning of the Monday. However, Mr. Y received the intimation of the same in the evening. The bank needs a minimum balance of ₹ 1,000 all the time.

The other information with respect to stocks A and B, which are under consideration for this week, is as under:

A		B	
Return (%)	Probability	Return (%)	Probability
6	0.10	4	0.10
7	0.25	6	0.20

8	0.30	8	0.40
9	0.25	10	0.20
10	0.10	12	0.10

From the information given above, choose the correct answer to the following questions:

- I. The amount that will not be considered for taking position on Monday morning is.....
 - (a) ₹ 63,41,560
 - (b) ₹ 63,42,560
 - (c) ₹ 11,00,00,000
 - (d) ₹ 10,99,99,000
- II. Which stock has a wider dispersion of returns based on the given probability distribution?
 - (a) Stock A
 - (b) Stock B
 - (c) Both have equal dispersion
 - (d) Cannot be determined
- III. In Value at Risk (VaR) analysis, which factor directly increases VaR for a given investment?
 - (a) Higher expected return
 - (b) Lower confidence level
 - (c) Higher standard deviation
 - (d) Shorter holding period
- IV. Since Mr. Y invests in derivative of a single stock (not a portfolio), the risk considered for VaR is.....
 - (a) diversifiable risk
 - (b) unsystematic risk only
 - (c) total risk

- (d) market risk only

Foreign Exchange Exposure and Risk Management

2. An Indian exporting firm, Radhey & Sons exported dry fruits worth of AUD 1 million to an importer in Sydney. Radhey and Sons are worried about likely depreciation of AUD in near future as it is likely that the export sum will be received after 3 months. Today as such as there is no derivative contract is available in AUD to hedge itself from such depreciation.

The following data is given:

Spot rate : ₹ 64.00/AUD

3 months interest rates (per annum):

	Deposit	Borrowing
₹	10%	12%
AUD	4%	5%

From the information given above, choose the correct answer to the following questions:

- I. In a money market hedge for a foreign currency receivable, the exporter should.....
- borrow in domestic currency and invest foreign currency
 - borrow in foreign currency and invest domestic currency
 - borrow and invest in domestic currency only
 - borrow and invest in foreign currency only
- II. In case Radhey & Sons adopts Money Market hedge strategy, the interest rate to be used to compute amount borrowed shall be.....
- 4% per annum
 - 5% per annum
 - 10% per annum
 - 12% per annum

- III. If a forward contract in AUD were available, the money market hedge would.....
- (a) always be superior
 - (b) always be inferior
 - (c) be compared with forward hedge for cost efficiency
 - (d) become invalid
- IV. Interest Rate Parity theory assumes.....
- (a) No capital mobility
 - (b) Presence of arbitrage opportunities
 - (c) Efficient markets with no arbitrage opportunities
 - (d) Fixed exchange rate system

Advanced Capital Budgeting Decisions

3. Tension Free Solutions (TFS) is a reputed is logistic service providers. All the deliveries are made by drivers of the mini trucks. The company employs many drivers, each of whom is provided with small trucks to make deliveries. Each driver drives approximately 40000 kms per annum. TFS decides to continue its present policy of always buying a new truck for its drivers but wonders whether the present policy of replacing the truck every three year is optimal or not. It is of believe that as new models are entering into market on yearly basis, it wishes to consider whether a replacement of either one year or two years would be better option than present three year period. The fleet of truck is due for replacement shortly in near future.

The purchase price of latest model truck is ₹ 5,50,000. Resale value of used truck at current prices in market is as follows:

Period	₹
1 Year old	3,50,000
2 Year old	2,10,000
3 Year old	90,000

Running and Maintenance expenses (excluding depreciation) are as follows:

Year	Road Taxes Insurance etc. (₹)	Petrol Repair Maintenance etc. (₹)
1	30,000	3,00,000
2	30,000	3,50,000
3	30,000	4,30,000

Using opportunity cost of capital as 10% you are required to determine optimal replacement period of truck.

Security Valuation

4. The data given below relates to a convertible bond:

Face value	₹ 1,000
Coupon rate	12%
No. of shares per bond	20
Market price of share	₹ 48
Straight value of bond	₹ 940
Market price of convertible bond	₹ 1,060

Calculate:

- (i) Stock value of bond.
 - (ii) The percentage of downside risk.
 - (iii) The conversion premium
 - (iv) The conversion parity price of the stock.
5. Mr. A is thinking of buying shares at ₹ 500 each having face value of ₹ 100. He is expecting a bonus at the ratio of 1: 5 during the fourth year. Annual expected dividend is 20% and the same rate is expected to be maintained on the expanded capital base. He intends to sell the shares at the end of seventh year at an expected price of ₹ 900 each. Incidental expenses for purchase and sale of shares are estimated to be 5% of the market price. He expects a minimum return of 12% per annum.

Should Mr. A buy the share? If so, advise the maximum price should he pay for each share?

Note: 1. Assume that there is no tax on dividend income and capital gains.

2. Present Value Factors should be used up to three decimal places, and the final calculations should be rounded off to two decimal places.

Business Valuation

6. The following data pertains to XYZ Inc. engaged in software consultancy business as on 31 December 2024.

(\$ Million)

Income from consultancy	935.00
EBIT	180.00
Less: Interest on Loan	<u>18.00</u>
EBT	162.00
Tax @ 35%	<u>56.70</u>
	<u>105.30</u>

Balance Sheet

(\$ Million)

Liabilities	Amount	Assets	Amount
Equity Stock (10 million share @ \$ 10 each)	100	Land and Building	200
Reserves & Surplus	325	Computers & Softwares	295
Loans	180	Current Assets:	
Current Liabilities	180	Debtors	150
	<u> </u>	Bank	100
	<u>785</u>	Cash	<u>40</u>
			<u>290</u>
			<u>785</u>

With the above information and following assumption you are required to compute

- (a) Economic Value Added (EVA)

(b) Market Value Added (MVA)

Assuming that:

- (i) WACC is 12%.
- (ii) The share of company currently is quoted at \$ 50 each.

Derivatives Analysis & Valuation

7. Following is the information available pertaining to shares of Omni Ltd.:

Current Market Price (₹)	₹ 840.00
Strike Price (₹)	₹ 900.00
Maximum Price (₹) expected in next 3 months' time	₹ 1,050.00
Minimum Price (₹) expected in next 3 months' time	₹ 756.00
Continuously Compounded Rate of Interest (p.a.) (%)	8.00%
e^{rt}	1.0202

Based on the above, calculate the value of the 3-month call option using the Binomial Method and the Risk-Neutral Method, and also draw a conclusion.

Note: Round off calculations upto 2 decimal points.

Interest Rate Risk Management

8. Suppose a dealer quotes 'All-in-cost' for a generic swap at 8% against six month SOFR flat. If the notional principal amount of swap is US\$ 5,00,000.

- (i) Calculate semi-annual fixed payment.
- (ii) Find the first floating rate payment for (i) above if the six month period from the effective date of swap to the settlement date comprises 181 days and that the corresponding SOFR was 6% on the effective date of swap.

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

Note: 1. Generic swap is based on 30/360 days basis.

2. Round off the calculations to the nearest whole number.

Portfolio Management

9. The following information is available with respect of AK Ltd.

Year	AK Limited		Market		Return on Govt. Bonds
	Average Share Price (₹)	DPS (₹)	Average Index	Dividend Yield (%)	
2022	242	20	1812	4	6
2023	279	25	1950	5	5
2024	305	30	2258	6	4
2025	322	35	2220	7	5

Compute Beta Value of the company as at the end of 2025. What is your observation?

Note: Round off all calculations upto 2 decimal points.

International Financial Management

10. ICL an Indian MNC is executing a plant in Sri Lanka. It has raised ₹ 400 billion. Half of the amount will be required after six months' time. ICL is looking an opportunity to invest this amount on 1st April,2020 for a period of six months. It is considering two underlying proposals:

Market	Japan	US
Nature of Investment	Index Fund (JPY)	Treasury Bills (USD)
Dividend (in billions)	25	-
Income from stock lending (in billions)	11.9276	-
Discount on initial investment at the end	2%	-
Interest	-	5 per cent per annum
Exchange Rate (1 st April, 2020)	JPY/INR 1.58	USD/INR 0.014
Exchange Rate (30 th September, 2020)	JPY/INR 1.57	USD/INR 0.013

You, as an Investment Manager, is required to suggest the best course of option.

Note: Present all figures in billions and round off the calculations to four decimal places.

Mergers, Acquisitions and Corporate Restructuring

11. Long Ltd., is planning to acquire Tall Ltd., with the following data available for both the companies:

	Long Ltd.	Tall Ltd.
Expected EPS	₹ 12	₹ 5
Expected DPS	₹ 10	₹ 3
No. of Shares	30,00,000	18,00,000
Current Market Price of Share	₹ 180	₹ 50

As per an estimate Tall Ltd., is expected to have steady growth of earnings and dividends to the tune of 6% per annum. However, under the new management the growth rate is likely to be enhanced to 8% per annum without additional investment.

You are required to:

- (i) Calculate the net cost of acquisition by Long Ltd., if ₹ 60 is paid for each share of Tall Ltd.
- (ii) If the agreed exchange ratio is one share of Long Ltd., for every three shares of Tall Ltd., in lieu of the cash acquisition as per (i) above, what will be the net cost of acquisition?
- (iii) Calculate Gain from acquisition.

Mutual Funds

12. On 1st April, an open ended scheme of mutual fund had 400 lakh units outstanding with Net Assets Value (NAV) of ₹19. At the end of April, it issued 5 lakh units at an opening NAV plus 2% load, adjusted for dividend equalization. At the end of May, 4 Lakh units were repurchased at the opening NAV less 2% exit load adjusted for dividend equalization. At the end of June, 60% of its available income was distributed.

In respect of April-June quarter, the following additional information is available:

Particulars	₹ in Lakhs
Portfolio value appreciation	515.67
Income of April	31.960
Income of May	46.125
Income for June	58.470

You are required to calculate:

- (i) Income available for distribution;
- (ii) Issue price at the end of April;
- (iii) Repurchase price at the end of May; and
- (iv) Net Asset Value (NAV) as on 30th June.

Note: Round off all calculations upto 4 decimal points.

Security Analysis

13. Closing values of NSE Nifty from 8th to 21st day of the month of January of the year 2026 were as follows:

Days	Date	Day	Nifty
1	8	THU	25877
2	9	FRI	25683
3	10	SAT	No Trading
4	11	SUN	No Trading
5	12	MON	25790
6	13	TUE	25732
7	14	WED	25665
8	15	THU	No Trading
9	16	FRI	25694
10	17	SAT	No Trading
11	18	SUN	No Trading

12	19	MON	25585
13	20	TUE	25232
14	21	WED	25158

Give detailed analysis (on the basis of your calculations) of 21- day Exponential Moving Average (EMA) of Nifty during the above period.

The previous day exponential moving average of Nifty can be assumed as 26024.

Note: Round off calculations upto 3 decimal points.

Theoretical Questions

14. Explain the key decisions falling within the scope of financial strategy.
15. Explain risk associated with the use of Blockchain technology.

OR

Explain characteristics of Venture Capital Financing.



SUGGESTED ANSWERS/HINTS

Question No.	Answer
1. I	(b)
II	(b)
III	(c)
IV	(c)
2. I	(b)
II	(b)
III	(c)
IV	(c)

3. Since the effect of increasing running cost and decreasing resale value have to be weighted upto against the purchase cost of truck, we shall compute Equivalent Annual Cost (EAC) of replacement in different years shall be computed and compared.

Year	Road Taxes (₹)	Petrol etc. (₹)	Total (₹)	PVF @10%	PV (₹)	Cumulative PV (₹)	PV of Resale Price (₹)	Net Outflow (₹)
1	30,000	3,00,000	3,30,000	0.909	2,99,970	2,99,970	3,18,150	(18,180)
2	30,000	3,50,000	3,80,000	0.826	3,13,880	6,13,850	1,73,460	4,40,390
3	30,000	4,30,000	4,60,000	0.751	3,45,460	9,59,310	67,590	8,91,720

Computation of Equivalent Annual Costs (EACs)

Year	Purchase Price of Bike (₹)	Net Outflow (₹)	Total Outflow (₹)	PVAF @ 10%	EAC (₹)
1	5,50,000	(18,180)	5,31,820	0.909	5,85,061
2	5,50,000	4,40,390	9,90,390	1.735	5,70,830
3	5,50,000	8,91,720	14,41,720	2.486	5,79,936

Thus, from above table it is clear that EAC is least in case of 2 years, hence truck should be replaced every two years.

4. (i) Stock value or conversion value of bond

$$₹ 48 \times 20 = ₹ 960$$

- (ii) Percentage of the downside risk

$$\frac{1060-940}{940} = 0.1277 \text{ or } 12.77\% \text{ or } \frac{1060-940}{1060} = 0.1132 \text{ or } 11.32\%$$

This ratio gives the percentage price decline experienced by the bond if the stock becomes worthless.

(iii) Conversion Premium

$$\frac{\text{Market Price} - \text{Conversion Value}}{\text{Conversion Value}} \times 100$$

$$\frac{1060 - 960}{960} = 10.42\%$$

(iv) Conversion Parity Price

$$\frac{\text{Bond Price}}{\text{No. of Shares on Conversion}}$$

$$\frac{1060}{20} = ₹ 53$$

This indicates that if the price of shares rises to ₹ 53 from ₹ 48 the investor will neither gain nor lose on buying the bond and exercising it. Observe that ₹ 5 (₹ 53 – ₹ 48) is 10.42% of ₹ 48, the Conversion Premium.

5. P.V. of dividend stream and sales proceeds

Year	Divd. /Sale	PVF (12%)	PV (₹)
1	₹ 20/-	0.893	17.86
2	₹ 20/-	0.797	15.94
3	₹ 20/-	0.712	14.24
4	₹ 24/-	0.636	15.26
5	₹ 24/	0.567	13.61
6	₹ 24/	0.507	12.17
7	₹ 24/	0.452	10.85
7	₹ 1026/- (₹ 900 x 1.2 x 0.95)	0.452	<u>463.75</u>
			₹ 563.68
	Less: Cost of Share (₹ 500 x 1.05)		<u>₹ 525.00</u>
	Net gain		<u>₹ 38.68</u>

Since Mr. A is gaining ₹ 38.68 per share, he should buy the share.

Maximum price Mr. A should be ready to pay is ₹ 563.68 which will include incidental expenses. So the maximum price should be ₹ 563.68 x 100/105 = ₹ 536.84

6. (a) Determination of Economic Value Added (EVA)

	<i>\$ Million</i>
EBIT	180.00
<i>Less: Taxes @ 35%</i>	<u>63.00</u>
Net Operating Profit after Tax	117.00
<i>Less: Cost of Capital Employed [W. No.1]</i>	<u>72.60</u>
Economic Value Added	<u>44.40</u>

(b) Determination of Market Value Added (MVA)

	<i>\$ Million</i>
Market value of Equity Stock [W. No. 2]	500
Equity Fund [W. No. 3]	<u>425</u>
Market Value Added	<u>75</u>

Working Notes:

(1) Total Capital Employed

Equity Stock	\$ 100 Million
Reserve and Surplus	\$ 325 Million
Loan	<u>\$ 180 Million</u>
	<u>\$ 605 Million</u>

WACC 12%

Cost of Capital employed \$ 605 Million x 12% \$ 72.60 Million

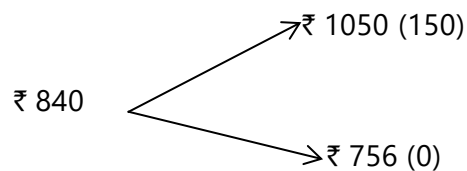
(2) Market Price per equity share (A) \$ 50

No. of equity share outstanding (B) 10 Million

Market value of equity stock (A) x (B) \$ 500 Million

(3) Equity Fund	
Equity Stock	\$ 100 Million
Reserves & Surplus	<u>\$ 325 Million</u>
	<u>\$ 425 Million</u>

7. (a) Call Option value using Binomial Model



$$u = 1050/840 = 1.25 \quad d = 756/840 = 0.90$$

$$r = 1.0202$$

$$p = \frac{r-d}{u-d} = \frac{1.0202-0.90}{1.25-0.90} = 0.1202/0.35 = 0.34 \text{ (Prob. of increase in Price of Share)}$$

$$\text{Prob. of decrease in Price of Share} = 1 - 0.34 = 0.66$$

$$\text{Value of Option} = \frac{0.34(150) + 0.66(0)}{1.0202} = ₹ 49.99$$

(b) Value of Call Option using Risk Neutral Method

Let 'P' be the probability of Price increase, then

$$p \times 1050 + (1 - p) \times 756 = 840(1.0202)$$

$$294p = 100.97$$

$$p = 0.34$$

$$\text{Probability of Price increase} = 0.34$$

$$\text{Probability of Price decrease} = 0.66$$

$$\frac{0.34 \times 150 + 0.66 \times 0}{1.0202} = ₹ 49.99$$

Conclusion: The value of option under both Models is same.

8. (i) Semi-annual fixed payment

$$= N \text{ (AIC) (Period)}$$

Where N = Notional Principal amount = US\$ 5,00,000

$$\text{AIC} = \text{All-in-cost} = 8\% = 0.08$$

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

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

$$= 5,00,000 \times 0.04 = \text{US\$ } 20,000/-$$

(ii) Floating Rate Payment

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

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

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

$$= 5,00,000 \times 0.03018 = \text{US\$ } 15,090 \text{ or } 5,00,000 \times 0.030166 = \text{US\$ } 15,083$$

(iii) Net Amount

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

$$= \text{US\$ } 20,000 - \text{US\$ } 15,090 = \text{US\$ } 4,910$$

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

9. (a) Computation of Beta Value

Calculation of Returns

$$\text{Returns} = \frac{D_1 + (P_1 - P_0)}{P_0} \times 100$$

Year	Returns
2022-2023	$\frac{25+(279-242)}{242} \times 100 = 25.62\%$
2003-2004	$\frac{30+(305-279)}{279} \times 100 = 20.07\%$
2004-2005	$\frac{35+(322-305)}{305} \times 100 = 17.05\%$

Calculation of Returns from market Index

Year	% of Index Appreciation	Dividend Yield %	Total Return %
2022-2023	$\frac{1950-1812}{1812} \times 100 = 7.62\%$	5%	12.62%
2023-2024	$\frac{2258-1950}{1950} \times 100 = 15.79\%$	6%	21.79%
2024-2025	$\frac{2220-2258}{2258} \times 100 = (-)1.68\%$	7%	5.32%

Computation of Beta

Year	X	Y	XY	Y ²
2022-2023	25.62	12.62	323.32	159.26
2023-2024	20.07	21.79	437.33	474.80
2024-2025	17.05	5.32	90.71	28.30
	$\sum X = 62.74$	$\sum Y = 39.73$	$\sum XY = 851.36$	$\sum Y^2 = 662.36$

$$\bar{X} = \frac{62.74}{3} = 20.91, \quad \bar{Y} = \frac{39.73}{3} = 13.24$$

$$\begin{aligned} \beta &= \frac{\sum XY - n\bar{X}\bar{Y}}{\sum Y^2 - n(\bar{Y})^2} \\ &= \frac{851.36 - 3(20.91)(13.24)}{662.36 - 3(13.24)^2} \\ &= \frac{851.36 - 830.55}{662.36 - 525.89} = \frac{20.81}{136.47} = 0.15 \end{aligned}$$

- (b) **Observation:** Based on the beta value of the company and the analysis of returns, it can be concluded that changes in the return on share of AK Ltd. are less affected by changes in market returns.

10. Investment in JPY

<i>(in billions)</i>			
<i>Particulars</i>	<i>Currency INR</i>	<i>ER</i>	<i>Currency JPY</i>
Available amount	200	1.58	<u>316.0000</u>
Dividend Income			25.0000
Stock Lending Income			11.9276
Investment value at the end after discount @ 2%			<u>309.68</u>
Amount available at the end			<u>346.6076</u>
Conversion as on 30-09-2020		1.57	₹ 220.7692
Gain			₹ 20.7692

Investment in USD

<i>(in billions)</i>			
<i>Particulars</i>	<i>Currency INR</i>	<i>ER</i>	<i>Currency USD</i>
Available amount	200	0.014	2.8000
Interest for 6 months @ 5% p.a.			<u>0.0700</u>
Amount available at the end			<u>2.8700</u>
Conversion as on 30-09-2020		0.013	₹ 220.7692
Gain			₹ 20.7692

The equivalent amount is same in both the options so ICL is indifferent.

However, USD is more stable, and Treasury Bills are risk free, so investment in Treasury Bills (USD) is suggested.

11. (i) Net cost of acquisition shall be computed as follows:

Cash Paid for the shares of Tall Ltd. ($\text{₹ } 60 \times 18,00,000$)	₹ 10,80,00,000
Less: Value of Tall Ltd., as a separate entity ($18,00,000 \times \text{₹ } 50$)	₹ 9,00,00,000
Net Cost of acquisition of Tall Ltd.	₹ 1,80,00,000

- (ii) Net Cost of acquisition in case of exchange of shares:

Exchange ratio = 1 share of long Ltd for every 3 shares of Tall Ltd.

Number of shares to be issued in Long Ltd. ($18,00,000/3$)	= 6,00,000 shares
Total no. of shares in Long Ltd. after merger ($30,00,000 + 6,00,000$)	= 36,00,000

Calculation of cost of Equity of Tall Ltd.	= $D_1/P_0 + g$
Growth rate under new management after acquisition	= $\text{₹ } 3/50 + 0.06 = 12\%$
Value of Merged company assuming perpetual growth	= 8%
Value of merged company	
$(\text{₹ } 180 \times 30,00,000) + (\text{₹ } 3/ (0.12 - 0.08) \times 18,00,000$	= ₹ 67,50,00,000
	= $54,00,00,000 + (75 \times 18,00,000)$
Value per share of merged company ($67,50,00,000/36,00,000$)	= ₹ 187.50 per share

Calculation of net cost of acquisition	
Gross cost of acquisition ($6,00,000 \times 187.50$)	11,25,00,000
Less: CMP ($18,00,000 \times 50$)	9,00,00,000
Net Cost of acquisition	2,25,00,000

Alternatively, Net Cost of Acquisition can also be computed as follows:

No. of shares issued to shareholders of Tall Ltd. in the ratio of 1:3	6,00,000
Existing price of one share of Long Ltd.	₹ 180
Value of consideration paid for acquisition of Tall Ltd.	₹ 10,80,00,000
Less: Existing Value of Tall Ltd., as a separate entity	₹ 9,00,00,000
Net Cost of acquisition of Tall Ltd.	₹ 1,80,00,000

(iii) Calculation of gain from acquisition:

Total Earnings of Long Ltd. (₹ 12 x 30,00,000)	₹ 3,60,00,000
Total Earnings of Tall Ltd. (₹ 5 x 18,00,000)	₹ 90,00,000
Combined Earnings	₹ 4,50,00,000
PE Ratio of Long Ltd. (180/12)	15
Value of Long Ltd. after acquisition	₹ 67,50,00,000
Less: Value of two companies separately	
Long Ltd. (₹ 180 x 30,00,000)	₹ 54,00,00,000
Tall Ltd. (₹ 50 x 18,00,000)	₹ 9,00,00,000
Gain from Acquisition	₹ 4,50,00,000

12. (i) Calculation of Income available for Distribution

	Units (Lakh)	Per Unit (₹)	Total (₹ In lakh)
Income from April	400	0.0799	31.960
Add: Dividend equalization collected on issue	5	0.0799	0.3995
	405	0.0799	32.3595
Add: Income from May		0.1139	46.1250
	405	0.1938	78.4845

Less: Dividend equalization paid on repurchase	4	0.1938	(0.7752)
	401	0.1938	77.7093
Add: Income from June		0.1458	58.4700
	401	0.3396	136.1793
Less: Dividend Paid		0.2038	(81.7076)
	401	0.1358	54.4717

(ii) Calculation of Issue Price at the end of April

	₹
Opening NAV	19.00000
Add: Entry Load 2% of ₹ 19	0.3800
	19.3800
Add: Dividend Equalization paid on Issue Price	0.0799
	19.4599
	Or 19.46

(iii) Calculation of Repurchase Price at the end of May

	₹
Opening NAV	19.0000
Less: Exit Load 2% of ₹ 19	(0.3800)
	18.6200
Add: Dividend Equalization paid on Issue Price	0.1938
	18.8138

(iv) Closing NAV as on 30th June

	₹ (Lakh)
Opening Net Asset Value (₹ 19 × 400)	7,600.0000
Portfolio Value Appreciation	515.6700
Issue of Fresh Units (5 × 19.46)	97.3000

Income Received (31.960 + 46.125 + 58.470)		136.5550
		8349.5250
Less: Units repurchased (4 × 18.8138)	75.2552	
Income Distributed	81.7076	156.9628
Closing Net Asset Value		8,192.5622
Closing Units (400 + 5 – 4) lakh		401 lakhs
∴ Closing NAV as on 30 th June		₹ 20.4303

13. $EMA_t = (\text{Closing Price of the day} - \text{EMA of Previous Day}) \times \text{Exponent} + \text{Previous day EMA}$

$$\text{Exponent} = \frac{2}{n+1} \text{ i.e. } \frac{2}{21+1} = 0.091$$

Date	1	2	3	4	5
	Sensex	EMA for Previous day	1-2	3×0.091	EMA 2 + 4
8	25877.000	26024.000	-147.000	-13.377	26010.623
9	25683.000	26010.623	-327.623	-29.814	25980.809
12	25790.000	25980.809	-190.809	-17.364	25963.445
13	25732.000	25963.445	-231.445	-21.062	25942.383
14	25665.000	25942.383	-277.383	-25.242	25917.141
16	25694.000	25917.141	-223.141	-20.306	25896.835
19	25585.000	25896.835	-311.835	-28.377	25868.458
20	25232.000	25868.458	-636.458	-57.918	25810.540
21	25158.000	25810.540	-652.540	-59.381	25751.159

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

14. The key decisions falling within the scope of financial strategy are as follows:
- a. *Financing decisions:* These decisions deal with the mode of financing or mix of equity capital and debt capital.
 - b. *Investment decisions:* These decisions involve the profitable utilization of firm's funds especially in long-term projects (capital projects). Since the future benefits associated with such projects are not known with certainty, investment decisions necessarily involve risk. The projects are therefore evaluated in relation to their expected return and risk.
 - c. *Dividend decisions:* These decisions determine the division of earnings between payments to shareholders and reinvestment in the company.
 - d. *Portfolio decisions:* These decisions involve evaluation of investments based on their contribution to the aggregate performance of the entire corporation rather than on the isolated characteristics of the investments themselves.
15. Some of the risk associated with the use of blockchain technology are as follows:
- (i) With the use of blockchain, organizations need to consider risks with a wider perspective as different members of a particular blockchain may have different risk appetite/risk tolerances that may further lead to conflict when monitoring controls are designed for a blockchain. There may be questions about who is responsible for managing risks if no one party is in-charge, and how proper accountability is to be achieved in a blockchain.
 - (ii) The reliability of financial transactions is dependent on the underlying technology and if this underlying consensus mechanism has been tampered with, it could render the financial information stored in the ledger to be inaccurate and unreliable.
 - (iii) In the absence of any central authority to administer and enforce protocol amendments, there could be a challenge in the development and maintenance of process control activities and in such case, users of public blockchains find difficult to obtain an

understanding of the general IT controls implemented and the effectiveness of these controls.

- (iv) As blockchain involves humongous data getting updated frequently, risk related to information overload could potentially challenge the level of monitoring required. Furthermore, to find competent people to design and perform effective monitoring controls may again prove to be difficult.

OR

Following are some characteristics of Venture Capital Financing:

- (i) Long time horizon: The fund would invest with a long-term 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 add an illiquidity premium in 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 and have a Board seat.