Mock Test Paper - Series II: April 2025

Date of Paper: 5th April 2025

Time of Paper: 2 P.M. to 5 P.M.

FINAL COURSE: GROUP – I

PAPER – 2: ADVANCED FINANCIAL MANAGEMENT

Time Allowed – 3 Hours **Maximum Marks – 100**

1. *The question paper comprises two parts, Part I and Part II.*
2. *Part I comprises Case Scenario based Multiple Choice Questions (MCQs)*
3. *Part II comprises questions which require descriptive type answers.*

PART I – Case Scenario based MCQs (30 Marks)

Part I is compulsory.

Case Scenario I

Zenith Capital, a boutique investment firm, manages portfolios for high-net-worth individuals (HNIs). Their lead portfolio manager, Mr. R, has been closely analyzing market trends to optimize returns for their fixed-income portfolio. Over the past few months, he has observed fluctuations in interest rates and anticipates a significant shift in the near future.

To optimise returns, Mr. R is considering three different investment strategies for clients having ₹ 10 crore of fund and are interested in Fixed Income Portfolio. Each strategy is designed to align with the client's risk appetite and future liquidity needs.

Strategy A: Investing the entire ₹ 10 crore in a single bond with a 7-year maturity to match a specific financial obligation in the future.

Strategy B: Allocating ₹ 5 crore in short-term bonds (1-year maturity) and ₹ 5 crore in long-term bonds (7-year maturity) to balance risk and return.

Strategy C: Spreading the ₹ 10 crore investment equally across bonds with maturities of 1 to 5 years to ensure periodic liquidity.

Meanwhile, Mr. R is also considering forecasting models to predict interest rate movements. He is evaluating economic indicators such as inflation, historical rate trends, and a combination of multiple economic factors to enhance the firm's forecasting accuracy.

Mr. R suggested Strategy B for Mr. H (a HNI) having a sum of ₹ 10 crore for investment in Fixed Income Portfolio. As per the strategy half amount on fund is proposed to be invested in 7-year bonds yielding 8% per annum and balance in 1-year short term bond yielding 6% per annuam. Interest on these bonds is compounded annually.

Based on the above case scenario, choose the correct answer to the following questions:

1. What is the primary objective of an active bond portfolio strategy?
   (A) To maintain a fixed return irrespective of market conditions
   (B) To outperform the market by making informed investment decisions
   (C) To minimize volatility and ensure steady returns
   (D) To invest in government bonds only
2. If any HNI follows Strategy A, then ……of fixed-income portfolio strategy is being followed.
   (A) Barbell Strategy
   (B) Ladder Strategy
   (C) Bullet Strategy
   (D) Duration Matching
3. In the Barbell Strategy, the funds are typically allocated……..
   (A) by making entire investment in bonds with the same maturity period.
   (B) by dividing investment equally between short-term and long-term bonds.
   (C) by dividing equal amount in bonds with different maturity periods.
   (D) by investing only in short-term bonds.
4. In the ladder Strategy, the funds are typically allocated……
   (A) by making entire investment in bonds with the same maturity period.
   (B) by dividing investment equally between short-term and long-term bonds.
   (C) by dividing equal amount in bonds with different maturity periods.
   (D) by investing only in short-term bonds.
5. It is expected that interest rate in coming 8 years are expected to fall by 25 bps each year and if Mr. H does not withdraw any amount from the Fund during these 7 years the total value of the investment at the end of the 7th year shall be approximately…….
   (A) ₹ 15.036 crore
   (B) ₹ 15.721 crore
   (C) ₹ 15.739 crore
   (D) ₹ 15.829 crore **(5 x 2 = 10 Marks)**

Case Scenario II

An American institutional investor is exploring investment opportunities in different countries. Before proceeding, they believe a thorough analysis of options in the securities available to ensure a higher return while minimizing risk.

To achieve this objective, it formed a team consisting of following persons with respective assigned tasks:

Mr. A – He is entrusted with the task of analysing various Macro-economic factors e.g. historical performance of the economies in the past/ present and expectations in future, growth of different sectors of the economies in future with signs of stagnation/degradation at present. In addition to that he also analysed the trends in peoples' income and expenditure.

Ms. B – After receiving inputs/ recommendations from Mr. A she is entrusted with the task of assessment regarding all the conditions and factors relating to demand of the particular product, cost structure of the industry and other economic and Government constraints in the same country.

Mr. C – After receiving inputs/ recommendations from Ms. B he is entrusted with the task of careful examination of the company's quantitative and qualitative fundamentals. Which includes a comparison of price earning ratios of different companies. Further, In addition to examine the financial solvency, liquidity of the company he is also advised for the evaluation of future growth prospects of the company identified.

Based on the above case scenario, choose the correct answer to the following questions:

6. If Mr. A want to evaluate the impact of macroeconomic trends on their potential investment. Which of the following factors is least likely to influence their decision?

   (A) Growth rates of national income

   (B) Inflation rates

   (C) Market speculation trends

   (D) Barometer indicators

7. The investor learns that inflation is expected to rise. Based on economic analysis, how might this affect their stock investment decision?

   (A) Stock prices are expected to decline due to reduced consumer demand

   (B) Stock prices are expected to rise as stocks act as a hedge against inflation

   (C) Stock prices will remain unaffected as inflation only affects bond markets

(D) Stock prices will become highly volatile, but long-term growth remains unchanged

8. Which of the techniques shall be primarily used by Ms. B to carry out the required analysis at his part?

(A) Anticipatory Surveys

(B) Indicator Approach

(C) Input-Output Analysis

(D) Decision Tree Analysis

9. Mr. A while analyzing industry growth, finds that certain indicators tend to peak before the economy's overall growth. These indicators are best classified as.....

(A) Lagging indicators

(B) Leading indicators

(C) Coincidental indicators

(D) Random indicators

10. Specifically the team of Mr. A, Ms. B, and Mr. C are entrusted with the task of carrying out.....

(A) Fundamental Analysis

(B) Technical Analysis

(C) Market Analysis

(D) Security Analysis **(5 x 2 = 10 Marks)**

Case Scenario III

Suppose you are a risk manager at a financial institution, and your company has loaned a significant amount of ₹ 500 crore to a company X Ltd. for a period of 3 years at 6-month at MCLR plus 200 bps. You are concerned about X Ltd.'s ability to repay the debt due to recent market volatility. To protect your institution from potential default, you decide to purchase a Credit Default Swap (CDS) from ABC Bank Ltd. for same notional amount at a premium quoted at 1% per year through cash settlement.

On the respective reset dates for the same period actual MCLR interest rate comes out as follows:

Reset	MCLR
1	9.75%

2	10.00%
3	10.25%
4	10.35%
5	10.50%
6	10.60%

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

11. The primary purpose of a Credit Default Swap (CDS) is.....

    (A) to increase the value of bonds.

    (B) to protect against default risk of a debt obligation.

    (C) to provide guaranteed profit to the buyer.

    (D) to create a new form of loan.

12. Which of the following statements is true about CDS contracts?

    (A) CDS contracts cannot be used for speculation.

    (B) CDS contracts are governed by government regulations.

    (C) CDS contracts are private agreements between two parties.

    (D) CDS contracts eliminate all risks for the buyer.

13. Which organization publishes the guidelines and rules for conducting Credit Default Swap transactions?

    (A) Federal Reserve

    (B) International Swap and Derivative Association (ISDA)

    (C) Securities and Exchange Commission (SEC)

    (D) World Trade Organization (WTO)

14. Assuming no default occurs the total premium your company will pay during the designated loan period shall be.....

    (A) ₹ 5 crore

    (B) ₹ 10 crore

    (C) ₹ 15 crore

    (D) ₹ 30 crore

15. Suppose if the lender defaults somewhere in the beginning of third year of loan (after payment of interest upto 2 years) and the market value of a reference loans falls to 75% of its par value, then ABC Bank will pay your company .....in a cash settlement.

(A) ₹ 15 crore

(B) ₹ 30 crore

(C) ₹ 125 crore

(D) ₹ 500 crore **(5 x 2 = 10 Marks)**

PART – II DESCRIPTIVE QUESTIONS

Question No.1 is compulsory. Candidates are required to answer any four questions from the remaining five questions.

Working notes should form part of the answers.

Maximum Marks – 70 Marks

1. (a) Zaz plc, a UK Company is in the process of negotiating an order amounting €2.8 million with a large German retailer on 6 month's credit. If successful, this will be first time for Zaz has exported goods into the highly competitive German Market. The Zaz is considering following 3 alternatives for managing the transaction risk before the order is finalized.

(i) Mr. Peter the Marketing head has suggested that in order to remove transaction risk completely Zaz should invoice the German firm in Sterling using the current €/£ average spot rate to calculate the invoice amount.

(ii) Mr. Wilson, CE is doubtful about Mr. Peter's proposal and suggested an alternative of invoicing the German firm in € and using a Forward Contract to hedge the transaction risk.

(iii) Ms. Karen, CFO is agreed with the proposal of Mr. Wilson to invoice the German first in €, but she is of opinion that Zaz should use sufficient 6-month Sterling Future contracts (to the nearest whole number) to hedge the transaction risk.

Following data is available

Spot Rate	€ 1.1960 - €1.1970/£
6-months forward points	0.60 – 0.55 Euro Cents.
6-month Future contract is currently trading at	€ 1.1943/£

6-month Future contract size is	£62,500
After 6-month Spot rate and Futures rate	€ 1.1873/£

You are required to

(A) Calculate (to the nearest £) the £ receipt for Zaz plc, under each of 3 above proposals.

(B) In your opinion which alternative you consider to be most appropriate.

(8 Marks)

(b) Calculate the value of share from the following information:

Profit after tax of the company	₹ 290 crores
Equity capital of company	₹ 1,300 crores
Par value of share	₹ 40 each
Debt ratio of company (Debt/ Debt + Equity)	27%
Long run growth rate of the company	8%
Beta 0.1; risk free interest rate	8.7%
Market returns	10.3%
Capital expenditure per share	₹ 47
Depreciation per share	₹ 39
Change in Working capital	₹3.45 per share

(4 Marks)

(c) Explain briefly the role of a Special Purpose Vehicle (SPV) in securitization?

(2 Marks)

2. (a) Following information is related to the 7.50% Convertible bond of S Ltd. which is currently priced at ₹ 5300 per bond:

- Conversion Parity Price = ₹ 265
- Conversion Premium (Based on Market Price) = 10.41667%
- Percentage of Downside Risk based on Straight Value of Bond = 12.766%

Required:

(i) Calculate No. of shares on Conversion.

(ii) Analyse Current Market Price Per Share of S Ltd.

(iii) Assess the Straight Value of Bond.

(iv) Based on straight value of bond computed above, determine the approximate required rate of return by an investor on similar category of bonds.

Note: Use following Present Value Factors (PVFs) for various calculations:

	1	2	3	4	5
PVF @ 8%	0.9259	0.8573	0.7938	0.7350	0.6806
PVF @ 10%	0.9091	0.8264	0.7513	0.6830	0.6209

(6 Marks)

(b) Constant Engineering Ltd. has developed a high tech product which has reduced the Carbon emission from the burning of the fossil fuel. The product is in high demand. The product has been patented and has a market value of ₹ 100 Crore, which is not recorded in the books. The Net Worth (NW) of Constant Engineering Ltd. is ₹ 200 Crore. Long term debt is ₹ 400 Crore. The product generates a Net Operating Profit after Tax of ₹ 84 Crore. The rate on 365 days Government bond is 10 percent per annum. Market portfolio generates a return of 12 percent per annum. The stock of the company moves in tandem with the market.

Calculate Economic Value added of the company. **(4 Marks)**

(c) How can a company identify and manage counterparty risk effectively?

(4 Marks)

3. (a) A Mutual Fund is holding the following assets in ₹ Crores:

Investments in diversified equity shares	90.00
Cash and Bank Balances	10.00
	100.00

The Beta of the equity shares portfolio is 1.1. The index future is selling at 4300 level. The Fund Manager apprehends that the index will fall at the most by 10%. How many index futures he should short for perfect hedging? One index future consists of 50 units.

Substantiate your answer assuming the Fund Manager's apprehension will materialize. **(4 Marks)**

(b) Derivative Bank entered into a plain vanilla swap through on OIS (Overnight Index Swap) on a principal of ₹ 15 crores and agreed to receive MIBOR overnight floating rate for a fixed payment on the principal. The swap was

entered into on Monday, 31st July 2023 and was to commence on 1st August 2023 and run for a period of 7 days.

Respective MIBOR rates for Tuesday to Monday were:

8.12%, 7.75%, 7.95%, 8.10%, 8.12%, 8.15%

If Derivative Bank received ₹ 1420 net on settlement, calculate Fixed rate and interest under both legs.

Notes:

(i) Sunday is Holiday.

(ii) Work in rounded rupees and avoid decimal working.

(iii) Consider 365 days a year **(6 Marks)**

(c) Explain various strategies options available for foreign exchange exposure management. **(4 Marks)**

OR

(c) What are the key factors that influence corporate-level strategy decisions?

(**4 Marks)**

4. (a) Suppose that economy A is growing rapidly and you are managing a global equity fund and so far you have invested only in developed-country stocks only. Now you have decided to add stocks of economy A to your portfolio. The table below shows the expected rates of return, standard deviations, and correlation coefficients (all estimates are for aggregate stock market of developed countries and stock market of Economy A).

	Developed Country Stocks	Stocks of Economy A
Expected rate of return (annualized percentage)	10	15
Risk [Annualized Standard Deviation (%)]	16	30
Correlation Coefficient (ρ)	0.30	

Assuming the risk-free interest rate to be 3%, you are required to determine:

(i) What percentage of your portfolio should you allocate to stocks of Economy A if you want to increase the expected rate of return on your portfolio by 0.5%?

(ii) What will be the standard deviation of your portfolio assuming that stocks of Economy A are included in the portfolio as calculated above?

(iii) Also show how well the Fund will be compensated for the risk undertaken due to inclusion of stocks of Economy A in the portfolio comparing with investment in developed country's stocks only. **(8 Marks)**

(b) On 1st April 2024, an open-ended scheme of mutual fund had 600 lakh units outstanding with Net Assets Value (NAV) of ₹ 37.50. At the end of April, it issued 12 lakh units at opening NAV plus 2% load, adjusted for dividend equalization. At the end of May, 6 Lakh units were repurchased at opening NAV less 2% exit load adjusted for dividend equalization. At the end of June, 70% of its available income was distributed.

In respect of April-June quarter of 2024, the following additional information are available:

	₹ in lakh
Portfolio value appreciation	1701.88
Income of April 2024	91.800
Income for May 2024	137.700
Income for June 2024	181.800

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 2024.

Note: - Wherever required round off calculations upto 4 decimal points. **(6 Marks)**

5. (a) T Ltd. and E Ltd. are in the same industry. The former is in negotiation for acquisition of the latter. Important information about the two companies as per their latest financial statements is given below:

	T Ltd.	E Ltd.
₹ 10 Equity shares outstanding	12 Lakhs	6 Lakhs
Debt:		
10% Debentures (₹ Lakhs)	580	--
12.5% Institutional Loan (₹ Lakhs)	--	240

Earning before interest, depreciation and tax (EBIDAT) (₹ Lakhs)	400.86	115.71
Market Price/share (₹)	220.00	110.00

T Ltd. plans to offer a price for E Ltd., business as a whole which will be 7 times EBIDAT reduced by outstanding debt, to be discharged by own shares at market price.

E Ltd. is planning to seek one share in T Ltd. for every 2 shares in E Ltd. based on the market price. Tax rate for the two companies may be assumed as 30%.

Calculate and show the following under both alternatives - T Ltd.'s offer and E Ltd.'s plan:

(i) Net consideration payable.

(ii) No. of shares to be issued by T Ltd.

(iii) EPS of T Ltd. after acquisition.

(iv) Expected market price per share of T Ltd. after acquisition.

(v) State briefly the advantages to T Ltd. from the acquisition.

Note: Calculations (except EPS) may be rounded off to 2 decimals in lakhs.

(10 Marks)

(b) The market received rumour about ABC corporation's tie-up with a multinational company. This has induced the market price to move up. If the rumour is false, the ABC corporation stock price will probably fall dramatically. To protect from this an investor has bought the call and put options.

He purchased one 3 months call with a striking price of ₹ 42 for ₹ 2 premium, and paid Re.1 per share premium for a 3 months put with a striking price of ₹ 40.

(i) Determine the Investor's position if the tie up offer bids the price of ABC Corporation's stock up to ₹ 43 in 3 months.

(ii) Determine the Investor's ending position, if the tie up programme fails and the price of the stocks falls to ₹ 36 in 3 months. **(4 Marks)**

6. (a) XY Limited is engaged in large retail business in India. It is contemplating for expansion into a country of Africa by acquiring a group of stores having the same line of operation as that of India.

The exchange rate for the currency of the proposed African country is extremely volatile. Rate of inflation is presently 40% a year. Inflation in India is currently

10% a year. Management of XY Limited expects these rates likely to continue for the foreseeable future.

Estimated projected cash flows, in nominal terms, in India as well as African country for the first three years of the project are as follows:

	Year – 0	Year – 1	Year – 2	Year – 3
Cash flows in Indian ₹ (000)	-200000	-6600	-10000	-13000
Cash flows in African Rands (000)	-800000	+280000	+550000	+1000000

XY Ltd. assumes the year 3 nominal cash flows will continue to be earned each year indefinitely. It evaluates all investments using nominal cash flows and a nominal discounting rate. The present exchange rate is African Rand 6 to ₹ 1.

You are required to calculate the net present value of the proposed investment considering the fact that the company uses discounting rate of 10.80% to evaluate any project but to reflect high risk of this project it is considering to adjust a risk premium of 8.30%

Note: -

1. Use PV Factors upto 3 decimal points.
2. Use Exchange Rates upto 4 decimal points.
3. Compute final calculation in multiple of ₹`000 and round off them upto zero.
4. Ignore taxation. **(6 Marks)**

(b) A company is considering Projects X and Y with following information:

Project	Expected NPV (₹)	Standard deviation
X	1,22,000	90,000
Y	2,25,000	1,20,000

Required:

(i) Which project will you recommend based on the above data?

(ii) Explain whether your opinion will change, if you use coefficient of variation as a measure of risk.

(iii) Which measure is more appropriate in this situation and why? **(4 Marks)**

(c) What are the advantages of bringing Venture Capital in the company? **(4 Marks)**

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PAPER – 2: ADVANCED FINANCIAL MANAGEMENT

ANSWER TO PART – I CASE SCENARIO BASED MCQS

1. **Option (B)**
2. **Option (C)**
3. **Option (B)**
4. **Option (C)**
5. **Option (B)**
6. **Option (C)**
7. **Option (B)**
8. **Option (C)**
9. **Option (B)**
10. **Option (A)**
11. **Option (B)**
12. **Option (C)**
13. **Option (B)**
14. **Option (C)**
15. **Option (C)**

ANSWERS OF PART – II DESCRIPTIVE QUESTIONS

1. (a) (A) Receipt under three proposals

(i) Proposal of Mr. Peter

Invoicing in £ will produce = $\frac{€\ 2.8\ \text{million}}{1.1965}$ = £ 2.340 million

(ii) Proposal of Mr. Wilson

Forward Rate = € 1.1970-0.0055 = 1.1915

Using Forward Market hedge Sterling receipt would be $\frac{€2.8 \text{million}}{1.1915}$ = £ 2.35 million

(iii) Proposal of Ms. Karen

The equivalent sterling of the order placed based on future price (€1.1943)

$= \frac{€2.8 \text{million}}{1.1943}$ = £ 2,344,470 (rounded off)

Number of Contracts = $\frac{£2,344,470}{62,500}$ = 37 Contracts (to the nearest whole number)

Thus, € amount hedged by future contract will be = 37 × £ 62,500 = £ 23,12,500

Buy Future at	€ 1.1943
Sell Future at	€ 1.1873
	€ 0.0070

Total loss on Future Contracts = 37 × £ 62,500 × € 0.0070 = € 16,188

After 6 months

Amount Received	€ 28,00,000
Less: Loss on Future Contracts	€ 16,188
	€ 27,83,812

Sterling Receipts

On sale of € at spot = $\frac{€27,83,812}{1.1873}$ = £ 2.3446 million

(B) Proposal of option (ii) is preferable because the option (i) & (iii) produces least receipts. Further, in case of proposal (i) there must be a doubt as to whether this would be acceptable to German firm as it is described as a competitive market and Zaz is moving into it first time.

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

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

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

FCFE = Net income – [(1-b) (capex – dep) + (1-b) (ΔWC)]

FCFE = 8.923 – [(1-0.27) (47-39) + (1-0.27) (3.45)]

= 8.923 – [5.84 + 2.5185] = 0.5645

Cost of Equity = R_f + ß (R_m – R_f)

= 8.7 + 0.1 (10.3 – 8.7) = 8.86%

$$Po = \frac{FCFE(1+g)}{K_e - g} = \frac{0.5645(1.08)}{0.0886 - .08} = \frac{0.60966}{0.0086} = ₹\ 70.89$$

(c) SPV is created for the purpose of executing the deal. Since issuer originator transfers all rights in assets to SPV, it holds the legal title of these assets. It is created especially for the purpose of securitization only and normally could be in form of a company, a firm, a society or a trust.

The main objective of creating SPV is to remove and ring fence the asset from the Balance Sheet of Originator. Since, SPV makes an upfront payment to the originator, it holds the key position in the overall process of securitization. Further, it also issues the securities [called Asset Based Securities (ABS) or Mortgage Based Securities (MBS)] to the investors.

2. **(a)** **(i)** Conversion Parity Price = $\frac{Bond\ Price}{No.of\ Shares\ on\ Conversion}$

$$₹\ 265 = \frac{5300}{No.of\ Shares\ on\ Conversion}$$

No. of Shares on Conversion = 20 Shares

(ii) Conversion Premium = $\frac{(Conversion\ Parity\ Price\ -\ Market\ Price)}{Market\ Price} \times 100$

$$10.41667\ \% = \frac{(265 - \text{Market Price})}{\text{Market Price}} \times 100$$

Market Price = ₹ 240

(iii) Percentage of Downside Risk

$$= \frac{\text{Market Price of Bond} - \text{Straight Value of Bond}}{\text{Staright Value of Bond}} \times 100$$

$$12.766\ \% = \frac{(5300 - SV)}{SV} \times 100$$

Straight Value of Bond = ₹ 4700

(iv) To determine the required return, we shall discount related cash flows as follows:

PV@8%

Year	Cash Flow	PVF	PV
0	- 4700	1	- 4700
1	375	0.9259	347.21
2	375	0.8573	321.49
3	375	0.7938	297.68
4	375	0.7350	275.63
5	5375	0.6806	3658.23
			200.23

PV@10%

Year	Cash Flow	PVF	PV
0	- 4700	1	- 4700
1	375	0.9091	340.91
2	375	0.8264	309.90
3	375	0.7513	281.74
4	375	0.6830	256.13
5	5375	0.6209	3337.34
			- 173.99

Calculation of Required return using IRR

$$= 8\% + \frac{200.23}{200.23 + 173.99} \times 2\%$$

$$= 8\% + \frac{200.23}{374.22} \times 2\% = 8\% + 1.07\% = 9.07\%$$

(b) EVA = Income Earned – (Cost of Capital x Total Investment)

Total Investments

	Amount (₹ Crore)
Net Worth	200.00
Long Term Debts	400.00
Patent Rights	100.00
Total	700.00

WACC (ko) $= k_e \times \frac{E}{E+D} + k_d \times \frac{D}{E+D}$

$$= 12 \times \frac{300}{700} + 10 \times \frac{400}{700}$$

= 5.14% + 5.71% = 10.85%

EVA = Profit Earned – WACC x Invested Capital

= ₹ 84 crore – 10.85% x ₹ 700 crore

= ₹ 8.05 crore

(c) A company can identify and manage counterparty risk effectively by recognizing potential warning signs and implementing risk mitigation techniques.

The various hints that may provide counter party risk are as follows:

(a) Failure to obtain necessary resources to complete the project or transaction undertaken.

(b) Any regulatory restrictions from the Government.

(c) Hostile action of foreign government.

(d) Let down by third party.

(e) Have become insolvent.

The various techniques to manage this type of risk are as follows:

(1) Carrying out Due Diligence before dealing with any third party.

(2) Do not over commit to a single entity or group or connected entities.

(3) Know your exposure limits.

(4) Review the limits and procedure for credit approval regularly.

(5) Rapid action in the event of any likelihood of defaults.

(6) Use of performance guarantee, insurance or other instruments.

3. (a) Number of index future to be sold by the Fund Manager is:

$$\frac{1.1\times 90,00,00,000}{4,300\times 50} = 4,605$$

Justification of the answer:

Loss in the value of the portfolio if the index falls by 10% is ₹ $\frac{11}{100}$x90 Crore = ₹ 9.90 Crore.

Gain by short covering of index future is: $\frac{0.1\times 4,300\times 50\times 4,605}{1,00,00,000}$ = 9.90 Crore

This justifies the answer. Further, cash is not a part of the portfolio.

(b)

	Principal (₹)	MIBOR (%)	Interest (₹)
Tuesday	15,00,00,000	8.12	33,370
Wednesday	15,00,33,370	7.75	31,856
Thursday	15,00,65,226	7.95	32,685
Friday	15,00,97,912	8.10	33,309
Saturday & Sunday (*)	15,01,31,221	8.12	66,798
Monday	15,01,98,019	8.15	33,537
Total Interest @ Floating			231,555
Less: Net Received			1420
Expected Interest @ fixed			2,30,135
Thus, Fixed Rate of Interest			0.08
Approx. i.e.			8%

(*) i.e. interest for two days.

(c) Four separate strategy options are feasible for exposure management. They are:

(a) Low Risk: Low Reward - This option involves automatic hedging of exposures in the forward market as soon as they arise, irrespective of the attractiveness or otherwise of the forward rate.

(b) Low Risk: Reasonable Reward- This strategy requires selective hedging of exposures whenever forward rates are attractive but keeping exposures open whenever they are not.

(c) High Risk: Low Reward- Perhaps the worst strategy is to leave all exposures unhedged.

(d) High Risk: High Reward- This strategy involves active trading in the currency market through continuous cancellations and re-bookings of forward contracts. With exchange controls relaxed in India in recent times, a few of the larger companies are adopting this strategy.

OR

Corporate level strategy fundamentally is concerned with selection of businesses in which a company should compete and with the development and coordination of that portfolio of businesses.

The key factors that influence corporate-level strategy decisions

(i) Suitability: Whether the strategy would work for the accomplishment of common objective of the company.

(ii) Feasibility: Determines the kind and number of resources required to formulate and implement the strategy.

(iii) Acceptability: It is concerned with the stakeholders' satisfaction and can be financial and non-financial.

4. (a) (i) Let the weight of stocks of Economy A be expressed as w, then

$(1- w) \times 10.0 + w \times 15.0 = 10.5$

i.e. $w = 0.1$ or 10%.

(ii) Variance of portfolio shall be:

$(0.9)^2 (0.16)^2 + (0.1)^2 (0.30)^2 + 2(0.9)(0.1)(0.16)(0.30)(0.30) = 0.02423$

Standard deviation is $(0.02423)^{½} = 0.15565$ or 15.6%.

(iii) The Sharpe ratio will improve by approximately 0.04, as shown below:

$$\text{Sharpe Ratio} = \frac{\text{Expected Return - Risk Free Rate of Return}}{\text{Standard Deviation}}$$

Investment only in developed countries: $\frac{10-3}{16} = 0.437$

With inclusion of stocks of Economy A: $\frac{10.5-3}{15.6} = 0.481$

(b) (i) Calculation of Income available for Distribution

	Units (Lakh)	Per Unit (₹)	Total (In ₹ lakh)
Income from April	600	0.1530	91.8000
Add: Dividend equalization collected on issue	12	0.1530	1.8360
	612	0.1530	93.6360
Add: Income from May		0.2250	137.7000
	612	0.3780	231.3360
Less: Dividend equalization paid on repurchase	6	0.3780	(2.2680)
	606	0.3780	229.0680
Add: Income from June		0.3000	181.8000
	606	0.6780	410.8680
Less: Dividend Paid		0.4746	(287.6076)
	606	0.2034	123.2604

(ii) Calculation of Issue Price at the end of April 2024

	₹
Opening NAV	37.5000
Add: Entry Load 2% of ₹ 37.500	0.7500
	38.2500
Add: Dividend Equalization paid on Issue Price	0.1530
	38.4030

(iii) Calculation of Repurchase Price at the end of May 2024

	₹
Opening NAV	37.5000
Less: Exit Load 2% of ₹ 37.50	(0.7500)
	36.7500
Add: Dividend Equalization paid on Issue Price	0.3780
	37.1280

(iv) NAV as on 30th June 2024

		₹ (Lakh)
Opening Net Asset Value (₹ 37.50 × 600)		22500.00
Portfolio Value Appreciation		1701.8800
Issue of Fresh Units (12 × 38.4030)		460.8360
Income Received (91.80 + 137.70 + 181.80)		411.3000
		25074.0160
Less: Units repurchased (6 × 37.128)	-222.7680	
Income Distributed	-287.6076	(-510.3756)
Closing Net Asset Value		24563.6404
Closing Units (600 + 12 – 6) lakh		606 lakh
∴ Closing NAV as on 30th June 2024		₹ 40.5341

5. (a) As per T Ltd.'s Offer

	₹ in lakhs
(i) Net Consideration Payable	
7 times EBIDAT, i.e. 7 x ₹ 115.71 lakh	809.97
Less: Debt	240.00
	569.97
(ii) No. of shares to be issued by T Ltd	
₹ 569.97 lakh/₹ 220 (rounded off) (Nos.)	2,59,000
(iii) EPS of T Ltd after acquisition	
Total EBIDT (₹ 400.86 lakh + ₹ 115.71 lakh)	516.57
Less: Interest (₹ 58 lakh + ₹ 30 lakh)	88.00
	428.57

Less: 30% Tax	128.57
Total earnings (NPAT)	300.00
Total no. of shares outstanding (12 lakh + 2.59 lakh)	14.59 lakh
EPS (₹ 300 lakh/ 14.59 lakh)	₹ 20.56
(iv) Expected Market Price:	
Pre-acquisition P/E multiple:	
EBIDAT (₹ in lakhs)	400.86
Less: Interest ($580 X \frac{10}{100}$)(₹ in lakhs)	58.00
	342.86
Less: 30% Tax (₹ in lakhs)	102.86
EAT (₹ in lakhs)	240.00
No. of shares (lakhs)	12.00
EPS	₹ 20.00
Hence, PE multiple $\frac{220}{20}$	11
Expected market price after acquisition (₹ 20.56 x 11)	₹ 226.16

As per E Ltd.'s Plan

		₹ in lakhs
(i)	**Net consideration payable**	
	6 lakhs shares x ₹ 110	660
(ii)	**No. of shares to be issued by T Ltd**	
	₹ 660 lakhs ÷ ₹ 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) ₹ 300 lakh/15 lakh	₹ 20.00
(iv)	**Expected Market Price** (₹ 20 x 11)	₹ 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

(b) Cost of Call and Put Options

= (₹ 2 per share) x (100 share call) + (₹ 1 per share) x (100 share put)

= ₹ 2 x 100 + 1 x 100

= ₹ 300

(i) Price increases to ₹43. Since the market price is higher than the strike price of the call, the investor will exercise it.

Ending position = (- ₹ 300 cost of 2 option) + (₹ 1 per share gain on call) x 100

= - ₹ 300 + 100

Net Loss = - ₹ 200

(ii) The price of the stock falls to ₹36. Since the market price is lower than the strike price, the investor may not exercise the call option.

Ending Position = (- ₹300 cost of 2 options) + (₹4 per stock gain on put) x 100 = - ₹300 + 400

Gain = ₹100

6. **(a)** First, we shall compute the discount rate to calculate the NPV of the project.

(1+Risk Premium) (1+Normal Discounting Rate) = (1+Required Rate)

(1.083) (1.108) = (1+Required Rate)

Required Rate = 0.20 i.e. 20%

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 ₹'000				
Nominal (1)	-200000	-6600	-10000	-13000

Cash Flows in African Rand '000				
Nominal	-800000	280000	550000	1000000
In Indian ₹'000 (2)	-133333	36666	56590	80843
Net Cash Flow in ₹ '000 (1) + (2)	-333333	30066	46590	67843
PVF@20%	1	0.833	0.694	0.579
PV	-333333	25045	32333	39281

NPV of 3 years = -236674 (₹ '000)

NPV of Terminal Value = $\frac{67843}{0.20} \times 0.579 = 196405$ (₹'000)

Total NPV of the Project = -236674 (₹ '000) + 196405 (₹'000) = - 40269 (₹'000)

(b) **(i)** On the basis of standard deviation project X be chosen because it is less risky than Project Y having higher standard deviation.

(ii) $CV_x = \frac{SD}{ENPV} = \frac{90,000}{1,22,000} = 0.738$

$CV_y = \frac{1,20,000}{2,25,000} = 0.533$

On the basis of Co-efficient of Variation (C.V.) Project X appears to be riskier and hence Y should be accepted.

(iii) However, the NPV method in such conflicting situation is best because the NPV method is in compatibility of the objective of wealth maximisation in terms of time value.

(c) Venture Capital Fund means investment vehicle that manage funds of investors seeking to invest in startup firms and businesses with exceptional growth potential. Venture capital is money provided by professionals who alongside management invest in young, rapidly growing companies that have the potential to develop into significant economic contributors.

- It injects long- term equity finance which provides a solid capital base for future growth.

- The venture capitalist is a business partner, sharing both the risks and rewards. Venture capitalists are rewarded with business success and capital gain.
- The venture capitalist is able to provide practical advice and assistance to the company based on past experience with other companies which were in similar situations.
- The venture capitalist also has a network of contacts in many areas that can add value to the company.
- The venture capitalist may be capable of providing additional rounds of funding should it be required to finance growth.
- Venture capitalists are experienced in the process of preparing a company for an Initial Public Offering (IPO) of its shares onto the stock exchanges or overseas stock exchange such as NASDAQ.
- They can also facilitate a trade sale.