FINAL EXAM
PAPER - 2
Advanced Financial Management

0 4 MAY 2026

Question Paper Booklet No. 2263573

GENERAL INSTRUCTIONS TO CANDIDATES

1. **The question paper comprises two parts, Part I and Part II.**
2. **Part I comprises Multiple Choice Questions (MCQs).**
3. **Part II comprises questions which require descriptive answers.**
4. **Answers to Questions of Part I (i.e., MCQs) are to be marked on the OMR answer sheet as given on the cover page of descriptive answer book only. Answers to questions in Part II (i.e. descriptive questions) are to be written inside the descriptive answer book. Answers to MCQs, if written inside the descriptive answer book will not be evaluated.**
5. OMR answer sheet given on the cover page of descriptive answer book will be in English only for all candidates, including for Hindi medium candidates.
6. The bar coded sticker provided in the attendance register, is to be affixed only on the descriptive answer book.
7. You will be allowed to leave the examination hall only after the conclusion of the exam. If you have completed the paper before time, remain in your seat till the conclusion of the exam.
8. **Duration of the examination is 3 hours.** You will be required to submit the descriptive answer book with OMR cover page to the invigilator before leaving the exam hall, after the conclusion of the exam.
9. The invigilator will give you acknowledgement on Page 2 of the admit card, upon receipt of the descriptive answer book.
10. Candidate found copying or receiving or giving any help or defying instructions of the invigilators or having/using mobile phone or smart watch or any other electronic gadget will be expelled from the examination and will also be liable for further punitive action.

PART – I

1. Answer all MCQs, on the OMR Answer Sheet as given on the cover page of descriptive answer book.
2. Use HB pencil only to darken the circles for MCQ answers in the answer sheet.
3. After each MCQ, four options have been given. **Choose the correct or most appropriate option** and darken the corresponding circle against the question number in the OMR Answer Sheet, completely, as shown below, with HB pencil.

Marking the Answers	
Example : For Question No. 12, if the candidate considers the correct answer to be C, he is to mark as shown below (Correct Method). 12 (A) (B) ● (D)	**Not as shown below (Wrong method) :** 12 (A) (B) ✓ (D); 12 (A) (B) ✗ (D); 12 (A) (B) (C) (D); 12 (A) (B) ● (D); 12 (A) ● ● (D)

4. Any answer to MCQ marked inside descriptive answer book will not be considered and no marks will be awarded.
5. If a candidate wants to change the option already darkened, he should erase it completely, **with good quality eraser** and ensure that no mark is visible after erasing.
6. No mark will be awarded if no circle is darkened or more than one circle is darkened for a particular MCQ. There is no negative marking for a wrong answer.
7. Rough work, if any, must be done on the pages, specified as SPACE FOR ROUGH WORK only and nowhere else in the question paper booklet or in the answer sheet.
8. Before commencement of the exam, please fill up the necessary information in the space provided below and also in the answer sheet.

Total No. of Printed Pages : 24

Maximum Marks : 100

Roll No. | | | | | | |

Question Paper Booklet Code A Z K

Name of the Candidate

Signature of the Candidate

PART – I

30 Marks

(MCQ Portion)

- ***Answers to MCQs are to be marked on the OMR answer sheet as given on the cover page of the descriptive answer book only. Answer to MCQs, if written inside the descriptive answer book shall not be evaluated.***
- ***Please write and darken correct MCQ booklet number in the OMR answer sheet. The correct MCQ booklet number must also be written in the attendance register.***

Case Scenario – I

The Government of India issues a 5-year Sovereign Gold Bond (SGB) at an issue price of ₹ 5,000 per gram. An investor, Mr. JK, has purchased 200 grams SGB under this scheme. The bond carries a coupon rate of 2.5% per annum, calculated as simple interest on the initial investment amount, with interest payable annually. At the end of five years, the bond will be redeemed at the prevailing market price of gold. The annual interest received is taxable at the investor's applicable marginal income tax rate. Any capital gain arising on redemption is taxable at 20% after considering the benefit of indexation. The inflation rate during the holding period is assumed to be 4% per annum.

From the information given above, choose the correct answer to the Question Nos. **1** to **3** :

1. An investor Mr. JK purchases 200 grams of SGB at ₹ 5,000 per gram. The investor falls in the 30% tax bracket. Inflation is 4% per annum. What are the post-tax annual interest income and the approximate real post-tax return (%) on initial investment ? **2**

   (A) ₹ 25,000 and 2.25%

   (B) ₹ 17,500, and – 2.25%

   (C) ₹ 17,500 and 1.75%

   (D) ₹ 17,500 and – 1.75%

2. After 5 years, gold price becomes ₹ 6,800 per gram. Inflation is constant at 4% annually. What is the indexed cost of acquisition and taxable capital gain to Mr. JK ? 2

(A) Indexed cost ₹ 12,00,000 ; Taxable gain ₹ 1,60,000

(B) Indexed cost ₹ 11,69,860 ; Taxable gain ₹ 1,90,140

(C) Indexed cost ₹ 12,16,653 ; Taxable gain ₹ 1,00,343

(D) Indexed cost ₹ 12,16,653 ; Taxable gain ₹ 1,43,347

3. Assume SGB redeems at ₹ 6,800 per gram and Mr. JK is in 30% tax bracket. What is the net amount received after capital gains tax (20% with indexation) ? 2

(A) 13,56,331 (B) 13,16,996

(C) 13,31,331 (D) 13,28,000

Case Scenario – II

NewChem Ltd., a leading chemical manufacturing firm based in Telangana, is evaluating the installation of a new-generation solar power plant to meet the energy needs of its primary manufacturing unit. This initiative is part of NewChem's long-term sustainability and cost-reduction goals.

The total cost of installing the solar plant is ₹ 3.20 crore. Based on the current state electricity tariffs, the plant is projected to generate savings in electricity expenses of ₹ 25 lakh per year in perpetuity.

However, there is regulatory uncertainty. A new state government is expected to take office in one year and it is anticipated that electricity tariffs will be revised. Based on industry analysis, the annual savings from the solar plant could change to one of two possibilities:

- Scenario 1 (Low Savings): Savings could decrease to ₹ 15 lakh per year in perpetuity.
- Scenario 2 (High Savings): Savings could increase to ₹ 40 lakh per year in perpetuity.

The company's Weighted Average Cost of Capital (WACC) is 9.5% and the current risk-free rate of return, based on 10-year government bonds, is 6.5%.

From the information given above, choose the correct answer to the Questions No. **4** to **6** :

4. NewChem Ltd. (Telangana) plans to invest ₹ 3.20 crore today in a solar power plant generating annual electricity savings of ₹ 25 lakh in perpetuity. The WACC is 9.5%. After one year, savings may change to ₹ 40 lakh (high scenario) or ₹ 15 lakh (low scenario) perpetuity due to tariff revisions. Calculate NPV if invested today and NPV after one year in both scenarios (in ₹ crore). 2

(A) Today: – 0.45; High: 1.01; Low: – 1.62

(B) Today: – 0.57; High: 1.21; Low: – 1.42

(C) Today: – 0.57; High: 1.01; Low: – 1.62

(D) Today: – 0.63; High: 0.95; Low: – 1.58

5. For NewChem's ₹ 3.20 crore solar plant (WACC 9.5%), after one year savings will be ₹ 40 lakh or ₹ 15 lakh perpetuity. Risk-free rate is 6.5%. Using risk-neutral valuation, compute returns in both scenarios and risk-neutral probability of high savings scenario (%). 2

(A) High: 31.56%; Low: – 50.63%; Prob: 69.5%

(B) High: 28.45%; Low: – 48.25%; Prob: 65.2%

(C) High: 31.56%; Low: – 50.63%; Prob: 73.8%

(D) High: 35.20%; Low: – 52.15%; Prob: 69.5%

6. New-Chem can invest ₹ 3.20 crore in solar plants today or wait one year, when savings will be ₹ 40 lakh or ₹ 15 lakh perpetuity (WACC 9.5%, risk-free 6.5%). Using risk-neutral probability (69.5% high), Compute PV of option to wait one year, discounted at risk-free rate and WACC (in ₹ lakh). 2

(A) PV at RF rate: ₹ 70.23 Lakh; WACC: ₹ 68.50 Lakh

(B) PV at RF rate: ₹ 68.50 Lakh; WACC: ₹ 70.23 Lakh

(C) PV at RF rate: ₹ 44.15 Lakh; WACC: ₹ 42.30 Lakh

(D) PV at RF rate: ₹ 19.53 Lakh; WACC: ₹ 18.98 Lakh

Case Scenario – III

XYZ Ltd. is professionally engaged in providing consultancy services related to corporate mergers and acquisitions. It is on an expansion mode and decided to hire freshly qualified Chartered Accountants for the post of "M&A Consultant". For selection of the candidate, each of the candidates needs to pass a written test. Following are some of the questions asked in the test to identify the concepts related to M&A.

You are a examinee in written test paper therefore, you are required to choose the correct option to the Question Nos. **7** to **9** :

7. AB Ltd., the acquiring company may issue substantial amount of convertible debentures to its existing shareholders to be converted at a future date when it faces a takeover threat. The tactic used by AB Ltd. is called _____. 2

(A) White Knight (B) Poison Put

(C) Poison Pill (D) White Squire

8. Identify the correct meaning from among the following options when X Ltd, a target company adopts "Greenmail" tactics to defend itself from hostile takeover. 2

(A) When X Ltd. issues bonds that encourage the holder to cash in at higher prices.

(B) When X Ltd. offers hefty compensations to its managers if they get ousted due to takeover.

(C) When X Ltd. makes a counter bid for the acquirer company.

(D) When X Ltd. offers the acquirer a higher price for its shares than the market price.

9. R Ltd. is a parent company and J Ltd. is its subsidiary company. J Ltd. is growing at a faster pace than R Ltd. and also carries higher valuations than other businesses owned by R Ltd. To unlock the value of J Ltd., and generate cash, a strategic avenue which R Ltd. may take is to make J Ltd. go public through an IPO but keep a controlling stake in the newly traded subsidiary. Such tactic adopted by R Ltd. is called _____. 2

(A) Split-up (B) Carve Out

(C) Sell-Off (D) Spin-Off

Case Scenario – IV

Mr. X a portfolio Manager invests ₹ 25,00,000 in stock Alpha and Beta in ratio of 60 : 40. The daily standard deviation of stock Alpha is 1.20% and stock Beta is 0.90%. The correlation between Alpha and Beta is 0.6. Mr. X wanted to measure VAR for confidence level 99% and 90% level. (Z score: 99% confidence level : 2.33 and 90% confidence level : 1.28) Assume 252 trading days in a year and mean return is zero.

From the information given above, choose the correct answer to the Question Nos. **10** to **12** :

10. What is the approximate annual Value at Risk (VaR) of the portfolio in rupee terms at the given 99% confidence level ? 2

(A) ₹ 57,027 (B) ₹ 5,43,162

(C) ₹ 9,05,271 (D) ₹ 7,94,080

11. What is the approximate diversification benefit (per day) of the portfolio while you calculate amount of VaR at 90% confidence level ? 2

(A) ₹ 11,540 (B) ₹ 23,060

(C) ₹ 34,580 (D) ₹ 3,252

12. If the correlation between Stock Alpha and Stock Beta increases from 0.60 to 0.80, what will be the impact on the portfolio's annual Value at Risk (VaR) at the 99% confidence level ? 2

(A) VaR increase by ₹ 48,085 (B) VaR decrease by ₹ 48,085

(C) VaR increase by ₹ 3,029 (D) VaR decrease ₹ 3,029

Case Scenario – V

Green Agro Exports Ltd. entered a 3-month forward contract on January 1, 2026 to buy USD 2,00,000 (import payment due April 1, 2026).

USD-INR Bank Quotes :

Date	Spot Bid	Spot Ask	1M Fwd Bid	1M Fwd Ask	2M Fwd Bid	2M Fwd Ask	3M Fwd Bid	3M Fwd Ask
01.01.2026	83.20	83.55	-	-	-	-	83.60	84.00
01.02.2026	83.80	84.15	-	-	83.95	84.35	-	-
01.03.2026	83.40	83.75	83.70	84.05	84.10	84.45	-	-
01.04.2026	84.20	84.50	84.30	84.65	-	-	-	-

From the information given above, choose the correct answer to the Questions No. **13** to **15** :

13. Green Agro Exports Ltd. entered 3-month USD 2,00,000 forward on Jan 1, 2026. On March 1, 2026, what is maturity settlement cost vs. net extra cost of closing original and rebooking 1-month forward ?

(A) Maturity ₹ 1,68,00,000; Extra ₹ 60,000

(B) Maturity ₹ 1,68,00,000; Extra ₹ 10,000

(C) Maturity ₹ 1,68,00,000; Extra ₹ 70,000

(D) Maturity ₹ 1,67,20,000; Extra ₹ 70,000

14. If import obligation is settled early on March 1, 2026, what total cash outflow is required that day to close forward contract and make import payment ?

(A) ₹ 16,740,000 (B) ₹ 16,810,000

(C) ₹ 16,870,000 (D) ₹ 16,890,000

15. Green Agro Exports Ltd. cancels the import and closes the USD 2,00,000 forward contract (Jan 1, 2026; 84.00 Ask). What are the mark-to-market gain/(loss) on the following dates ?

(A) Feb 1: – ₹ 10,000; Mar 1: – ₹ 60,000; Apr 1: + ₹ 40,000

(B) Feb 1: + ₹ 10,000; Mar 1: + ₹ 60,000; Apr 1: – ₹ 40,000

(C) Feb 1: – ₹ 30,000; Mar 1: – ₹ 60,000; Apr 1: + ₹ 40,000

(D) Feb 1: – ₹ 10,000; Mar 1: – ₹ 30,000; Apr 1: + ₹ 20,000

PART – II 70 Marks

(Descriptive Portion)

(Candidates are required to give descriptive answers for this part inside the answer book)

1. ***Question paper comprises 6 questions. Answer Question No. 1 which is compulsory and any 4 out of the remaining 5 questions.***
2. ***Working notes should form part of the answer.***
3. ***Answers to the questions are to be given only in English except in the case of candidates who have opted for Hindi Medium. If a candidate has not opted for Hindi Medium, his/her answers in Hindi will not be evaluated.***
4. ***Candidates are required to write the question number legibly.***

1. (a) Bharat Infrastructure Ltd (BIL), a premier Indian Engineering firm, has been invited to establish and operate a high-speed data center infrastructure in the Republic of Valoria. The initial investment required for the project is 4,000 million Valors (VL). **6**

Under the agreement, BIL will sell the project back to the Valorian government after 4 years for a guaranteed sale price of 8,000 million VL.

During the four-year operational period, BIL will provide technical maintenance and security protocols at an annual fee of 80 million VL, payable at the end of each year.

To hedge the foreign exchange risk associated with the initial capital investment, BIL's investment bankers have proposed a Currency Swap arrangement with the following terms :

- BIL will swap the principal amount of 4,000 million VL for Indian Rupees immediately (Year 0) at today's spot rate.
- The swap will be reversed at Year 4, with both parties re-exchanging the same principal amounts at the same spot rate locked in at inception.
- The bank will charge an annual facilitation fee of 0.30% (calculated on the ₹ principal amount), payable at the end of each year.

The currency swap covers only the initial investment and terminal principal. BIL's policy is to hedge all other foreign currency cash flows using forward contracts at the respective forward rates prevailing in the market today.

Financial Data :

The current market data and exchange rates (VL/₹) are as follows :

Period	Spot	1 Year Forward	2 Year Forward	3 Year Forward	4 Year Forward
Exchange Rate (VL/₹)	50.00	53.00	56.18	59.55	63.12
PV Factor @ 14%	1.000	0.877	0.769	0.675	0.592

Cumulative PVFA for 4 years at 14%. = 2.913

Assume a risk-adjusted discount rate of 14% per annum. Ignore taxation.

You are required to evaluate the project's financial viability using the Net Present Value (NPV) method, with all cash flows expressed in Indian Rupees (₹ million).

(b) XYZ Ltd. recently paid a dividend of ₹ 40. The company is entering a 5-year transition phase where its current 15% growth rate will decline linearly to a stable perpetual rate. 4

Financial Parameters :

- Transition Period: 5 years (declining linearly from Year 1).
- Current Data: ROE of 20% and a retention ratio of 25%.
- Terminal Data (Year 6+): ROE of 12% and a retention ratio of 50%.
- Market Data: Required return of 13% and Market Price of ₹ 850.

You are required to :

(i) Estimate the intrinsic value per share using the H-Model.

(ii) Given the current market price of ₹ 850 per share, assess whether the stock is undervalued or overvalued and calculate the percentage deviation from intrinsic value.

(c) MT Ltd. has approached you for an additional loan of ₹ 20 crores to fund its aggressive expansion plans. The company's current sustainable growth rate is 10%, but it aims to grow at 16% annually. Its debt-to-equity ratio is already at the maximum permissible limit of 2.5:1. Additionally, the industry is experiencing 5% inflation, which is increasing the company's asset financing requirements. 4

As a credit analyst, you explain the key concerns regarding this loan request and suggest two alternative courses of action available to the company to achieve its growth objectives sustainably.

2. (a) Mr RJ own two securities X and Y are priced according to a two-factor Arbitrage Pricing Model. The factor sensitivities and expected returns are as follows :

Particulars	Security X	Security Y
Beta with factor 1 (β_1)	1.2	0.8
Beta with factor 2 (β_2)	0.5	1.4
Expected (actual) return	14%	16%

Additional Information :

Risk-free rate = 6%,

Risk premium for Factor 1 = 4%,

Risk premium for Factor 2 = 5%.

Required :

(i) Evaluate whether Security X and Security Y are correctly priced under the two-factor Arbitrage Pricing Theory Model.

(ii) Mr RJ has ₹ 1,00,000 available and intends to construct a long–short portfolio by taking a long position in Security A and a short position in Security B. You are required to analyses and determine the amount to be invested in Security A and the amount to be sold short in Security B if the desired portfolio sensitivities are 1.40 with respect to Factor 1 and 0.05 with respect to Factor 2.

(b) On 1 July, ALPS Company shares trade at ₹ 2,000. An investor enters the following option: (3-month maturity) : 4

Option	Type	Strike (₹)	Premium (₹)
A	Call	1920	130
B	Call	2000	85
C	Call	2080	45
D	Put	1920	40
E	Put	2000	95
F	Put	2080	155

Contract size = 100 shares.

Risk-free rate = 6% p.a. (continuous compounding not required) and the stock does not pay dividends.

Ignore transaction costs. Assume that investor chosen any one option.

Required :

(i) Assess the ITM, ATM, OTM of each option A to option F at initiation and evaluate the intrinsic and time value components embedded in the premiums.

(ii) In the next 3 months expiry price may increase by 150 or may decrease 150. Under each expiry scenario, examine which options will be rationally exercised and appraise the net profit or loss per contract.

(c) The technology start-up, Fincorp Pvt. Ltd., is in its early growth stage and is evaluating multiple sources of financing including Angel Investment, Venture Capital (VC), Convertible Notes, SAFE and IPO. 4

Evaluate the following statements and state whether they are **True** or **False**, giving brief justification in each case :

(i) In early-stage start-ups, valuation is primarily based on discounted cash flow (DCF) using stable historical earnings.

(ii) Venture capital financing typically involves staged funding to reduce agency problems and mitigate investment risk.

(iii) Bootstrapping reduces dilution risk but may limit growth due to capital constraints.

(iv) Angel investors generally invest at a later stage than venture capitalists and demand stronger control rights.

3. (a) An Indian company is investing in a 2-year project in Europe (EURO). 6

Initial Investment = €4,000,000

Annual after-tax operating cash flow = €2,500,000

Life = 2 years

Unlevered cost of capital = 12%

Spot rate = ₹ 90/€

Corporate tax rate (India) = 30%

Financing Options (50% Debt Required)

Option	Borrowing Currency	Interest Rate (p.a.)
A	India (INR)	9%
B	Euro (EUR)	5%
C	USA (USD)	3%

Additional Data :

Spot USD/INR = ₹ 75

Spot EUR/USD = 1.20

Interest rate in USA = 3% p.a.

Interest rate in Europe = 5% p.a.

Assume : Interest Rate Parity (IRP) holds and No transaction cost

Required :

(i) Identify which option is the cheapest and why ?

(ii) Compute Adjusted Present Value (APV) under cheapest option.

Present Value Factor :	1st Year	2nd Year
12%	0.893	0.797
5%	0.952	0.907

(b) A mutual fund offers two plans : Dividend Plan and Bonus Plan. An investor invests ₹ 12,00,000 on 1 April, 2025 in the ratio 60:40 respectively. Initial NAV of both plans is ₹ 48. 4

Entry load is 2% and exit load is 1% (on redemption value).

Under the Dividend Plan, a dividend of ₹ 5 per unit is declared on 30 September, 2025 when NAV is ₹ 56. After declaration, NAV becomes ₹ 51. The dividend is reinvested at ₹ 51. Closing NAV on 31 March, 2026 is ₹ 54.

Under the Bonus Plan, a bonus issue of 1:4 is declared on 30 September, 2025 when NAV is ₹ 60. After bonus adjustment, NAV becomes ₹ 45. Closing NAV on 31 March, 2026 is ₹ 52.

Ignore taxation.

You are required to :

Evaluate the total return and Holding Period Return under each plan after considering loads and assess which plan provides higher effective return.

(c) "Transfer of NPAs through securitization improves balance sheet health but may involve regulatory and valuation challenges." Comment on the statement above. 4

4. (a) A portfolio manager is analysing four equity securities to construct an optimal risky portfolio using Sharpe's Single Index Model. The securities are traded in an efficient market and follow CAPM assumptions. 6

The following information is available :

Security	Expected Return E(Ri)	Beta (βi)	Residual Variance (σei^2)
A	17%	1.4	0.0225
B	15%	1.1	0.0196
C	13%	0.9	0.0144
D	11%	0.6	0.01

Additional information :

Risk-free rate (Rf) = 6%

Market expected return E(Rm) = 14%

Market variance (σm^2) = 0.040

Cut-Off Rate (C*) = 7.95

You are required to :

(i) Given the cut-off rate, identify the securities to be included in the optimal portfolio.

(ii) Compute the proportion of investment in each selected security.

(iii) Using CAPM, compute the expected return and valued of each selected security.

(iv) Why the portfolio constructed using Sharpe's Model is consistent with CAPM assumptions ?

(b) Consider the recent performance of the closed ended fund. 4

Period	NAV (₹)	Premium/Discount %
0	20	0
1	22.5	–5
2	19.5	2.3
3	21	–3.2
4	22.3	4

Required :

(i) Evaluate the average return per period (based on Geometric mean) for an investor who bought 1000 shares of the closed fund at the invitation and then sold her position at the end of the period 4.

(ii) Geometric growth rate in NAV over the same period and interpret the results.

(c) Explain the Elliot Wave Theory of Technical Analysis.

OR

(c) ABC Ltd. has a ₹ 100 Crores floating-rate loan, reset annually for 4 years.

It enters into a collar strategy to hedge against interest rate risk.

Cap Rate = 9.5%

Expected Interest rates & Discounting Factors :

Year	Expected Rate	Discounting Factor
1	7.8%	0.96
2	8.6%	0.92
3	9.2%	0.88
4	10.6%	0.84

You are required to identify a Floor Rate that makes the collar a zero cost collar. (Ignore Volatility)

5. (a) A "momentum-driven" investment consultant is pitching Lumina Cloud Systems (LCS) to your client. The consultant claims LCS is a bargain because its Cash Flow from Operations (CFO), when capitalized at the prime lending rate of 9%, yields a value of ₹ 425 per share. LCS currently trades at ₹ 240 per share. **5**

You are required to perform a Two-Stage FCFE Valuation to verify these claims.

Financial Data & Assumptions:

- Net Income (Base Year): ₹ 180 Crores.
- High-Growth Stage (Years 1–2): Net Income will grow by 25% annually.
- Net Investment in Operating Assets: This is projected to be ₹ 240 Crores in Year 1 and ₹ 280 Crores in Year 2. *(Note: This represents capital expenditure less depreciation plus the increase in working capital).*
- Debt Policy: The Company finances 30% of its net investment in operating assets through new debt.
- Cost of Equity: The risk-free rate is 6%, the company's Beta is 1.20 and the Equity Risk Premium (ERP) is 5%.
- Stable Stage (Year 3 onwards): Net investment in operating assets will drop to 20% of Net Income each year.

□

- Outstanding Shares: 60 Crores.
- Present Value Factor :

	1st Year	2nd Year	3rd Year
12%	0.893	0.797	0.7118

Requirements :

(i) Calculate the total Present Value of the FCFE for the high-growth period (Stage 1).

(ii) If the current market price of ₹ 240.00 is considered "fair" by the market, calculate the implied sustainable growth rate for the terminal stage (Year 3 onwards).

(b) Zenith Commercial Bank's ALCO is evaluating the re-pricing risk for the 0–90 days' time bucket. The following quarterly data is available : 7

Financial Data :

- Rate Sensitive Assets (RSAs) : ₹ 12,500 Crores
- Rate Sensitive Liabilities (RSLs) : ₹ 15,800 Crores
- Quarterly Net Interest Income (NII) : ₹ 450 Crores

Risk Policy :

The bank's Earnings at Risk (EaR) limit is 8% of quarterly NII. Hedging is mandatory if the potential NII impact in any scenario exceeds this threshold.

You are required to :

(i) Identify the Gap Position (Positive/Negative) and determine which of the following scenarios is favourable for the bank's NII, providing a brief justification :

- Scenario A : Repo rate increase of 50 bps.
- Scenario B : Repo rate decrease of 25 bps.

(ii) Calculate the Earnings at Risk (EaR) in ₹ Crores and as a percentage of NII for both scenarios. Based on the bank's risk policy, advice whether management should activate hedging strategies or not.

(c) Briefly justify why transaction exposure is generally considered more critical than translation exposure from a financial risk management perspective. **2**

6. (a) Arotech Industries Ltd. (A), a listed engineering major, are evaluating the acquisition of MedGen Labs Pvt. Ltd. (M), an unlisted pharmaceutical laboratory. Financial parameters as of 31 March, 2025 are as follows : **7**

Particulars	**Arotech Industries (A)**	**MedGen Labs (M)**
Profit After Tax (PAT)	₹ 6,000 crore	₹ 450 crore
No. of Equity Shares	500 crore	5 crore
P/E Ratio	30x	1.2 × Industry Avg P/E
Market Price / Standalone Fair Value	₹ 360.00	*To be determined*

Additional Information :

1. Combined Entity : Post-merger PAT is estimated at ₹ 6,850 crore (including synergies). The expected P/E of the combined entity is 34x.

2. Synergy Value : The total synergy gain (increase in combined entity value over the sum of standalone values) is capped at ₹ 34,000 crore.

3. Settlement Offers (Per 1 share of MedGen) :
   - Offer 1 (Cash) : ₹ 4,000 (Premium of 5.82% over the standalone fair value of MedGen).
   - Offer 2 (Hybrid Equity) : ₹ 1,000 Cash + Arotech shares (X) (Premium of 21.69% over standalone fair value).
   - Offer 3 (Hybrid Debt) : ₹ 1,150 Cash + 5 Convertible Bonds of Arotech (Premium of 25.66% over standalone fair value).

4. Bond Terms (Arotech) : Face Value ₹ 500, 4-year term, 10% discount rate. Each bond converts into 2 Arotech shares or redeems at ₹ 680.24.

You are required to :

(i) Determine the annual post-merger synergies (PAT basis) and MedGen's standalone P/E ratio.

(ii) Calculate the Industry Average P/E and MedGen's Standalone Fair Value per share.

(iii) Solve for the number of Arotech shares (X) offered in Offer 2.

(iv) Rank all three offers from MedGen's perspective assuming Arotech's share price has fallen to and remains at ₹ 330 at the time of settlement/conversion.

(b) The current price of F Ltd is ₹ 120 and a European option with an exercise price of ₹ 115 will expire in 50 days. The annual continuously compounded risk free rate of interest is 8%. The standard deviation of annual returns on F Ltd. is 30%. 7

Value of $(d_1) = 0.5375$; Year =365 days and value of $e^{-rt} = 0.9891$.

Using Black-Scholes Model, you are required to calculate :

(i) The Hedge Ratio

(ii) The probability that price in spot market on expiration would be higher than the exercise price of the call option.

(iii) Value of call and put options.

Cumulative Area Table extract

	0.00	0.01	0.02	0.03	0.04	0.05
0.4	0.6554	0.6591	0.6628	0.6664	0.6700	0.6736
0.5	0.6915	0.6950	0.6985	0.7019	0.7054	0.7088
0.6	0.7257	0.7291	0.7324	0.7357	0.7389	0.7422

(24)

AZK

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