MODEL TEST PAPER 4

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

Two friend Mr. A and Mr. N were discussing about the risks of market. While Mr. A is sort of risk averse, Mr. N is an aggressive investor and believes in taking risk.

Mr. N said we cannot diversify the market risk at all and he quoted the Modern Portfolio Approach. Both of these friend analyse the market data for the few month and came out with expected returns on two stocks for a particular market.

Market Return	Aggressive	Defensive
7%	4%	9%
25%	40%	18%

Based on the above information, choose the most appropriate alternative:

1. The Beta of Defensive stock is…….
   (a) 2
   (b) 0.5
   (c) 4
   (d) 1
2. Expected return of Aggressive stock if the market return is equally likely to be 7% or 25%. shall be……..
   (a) 18%

(b) 13.5%

(c) 22%

(d) 11%

3. The Alpha of the Defensive stocks is…….

(a) -10%

(b) 22%

(c) 5.5%

(d) 12%

4. The Modern Portfolio Theory is propounded by …….

(a) William Sharpe

(b) Black Scholes

(c) Stephen Ross

(d) Harry Markowitz

5. As per Capital Market Line (CML) Theory the Portfolios lying on the CML over the market portfolio are called …….

(a) Lending Portfolio

(b) Borrowing Portfolio

(c) Diversified Portfolio

(d) Risk- Free Portfolio **(5 x 2 = 10 Marks)**

Case Scenario II

XYZ Ltd. is in need of funds for a short tenure. Some functional level manager suggested about the Bank Loan option. On conforming from Finance Department, it was found that company exhausted its bank loan limited due to recent huge Capex. Then CA X, CFO suggested the idea of floating Commercial papers by XYZ Ltd.

Accordingly, XYZ Ltd. is planning to issue Commercial Paper (CP), the details of which is given below:

Issue Price of CP	₹ 97,550
Face Value	₹ 1,00,000

Maturity Period	3 Months
Issue Expense	
Brokerage	0.15%for 3 months
Rating charges	0.50% p.a.
Stamp Duty	0.175% for 3 months

Based on above case scenario answer the following questions:

6. The Bond Equivalent yield of the same Commercial Paper shall be approximately……..
   (a) 2.51%
   (b) 10.05%
   (c) 7.53%
   (d) 11.05%
7. The Effective Interest Rate per annum of same CP shall approximately be…….
   (a) 10.44%
   (b) 10.05%
   (c) 2.51%
   (d) 11.05%
8. The total cost of funds to the company shall approximately be……
   (a) 11.27%
   (b) 11.85%
   (c) 12.24%
   (d) 10.88%
9. Which of the following instruments cannot be used by a bank to meet its short-term funding requirements?
   (a) Call/Notice Money
   (b) Commercial Paper

(c) Certificate of Deposit

(d) Repurchase Agreement (Repo)

10. The period of Commercial Paper ranges from…….

(a) 14 days to 364 days

(b) 3 months to 6 months

(c) 7 days to 1 year

(d) 1 year to 3 years **(5 x 2 = 10 Marks)**

Case Scenario III

Mr. X on 1.7.2021, during the initial offer of some Mutual Fund invested in 10,000 units having face value of ₹ 10 for each unit. On 31.3.2022, the dividend paid by the M.F. was 10% and Mr. X found that his annualized yield was 153.33%. On 31.12.2023, 20% dividend was given. On 31.3.2010, Mr. X redeemed all his balance of 11,296.11 units when his annualized yield was 73.52%.

11. NAV as on 31/03/2022 shall be approximately…….

(a) ₹ 19.50

(b) ₹ 20.50

(c) ₹ 21.50

(d) ₹ 22.50

12. Total number of units as on 31/03/2022 shall be approximately…….

(a) 10487.80 units

(b) 12585.65 units

(c) 9465.35 units

(d) 11575.40 units

13. Dividend as on 31/03/2023 shall be …….

(a) ₹ 20625.50

(b) ₹ 20870.45

(c) ₹ 20975.60

(d) ₹ 21565.75

14. NAV as on 31/03/2023 shall be approximately…….

(a) 24.65

(b) 24.85

(c) 25.95

(d) 26.45

15. NAV as on 31/03/2024 shall be approximately…….

(a) 20.50

(b) 25.95

(c) 26.75

(d) 27.20 **(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) An importer booked a forward contract with his bank on 10th April for USD 2,00,000 due on 10th June @ ₹ 64.4000. The bank covered its position in the market at ₹ 64.2800.

The exchange rates for dollar in the interbank market on 10th June and 13th June were:

	10th June	13th June
Spot USD 1=	₹ 63.8000/8200	₹ 63.6800/7200
Spot/June	₹ 63.9200/9500	₹ 63.8000/8500
July	₹ 64.0500/0900	₹ 63.9300/9900
August	₹ 64.3000/3500	₹ 64.1800/2500
September	₹ 64.6000/6600	₹ 64.4800/5600

Exchange Margin 0.10% and interest on outlay of funds @ 12%. The importer requested on 14th June for extension of contract with due date on 10th August.

Rates to be rounded off to 4 decimals in multiples of 0.0025.

On 10th June, Bank Swaps by selling spot and buying one month forward.

Calculate:

(i) Cancellation rate

(ii) Amount payable on $ 2,00,000

(iii) Swap loss

(iv) Interest on outlay of funds, if any

(v) New contract rate

(vi) Total Cost **(10 Marks)**

(b) Explain the categories in which Financial Risk can be divided.

(4 Marks)

2. (a) 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

(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? **(6 Marks)**

(b) ABC Ltd. of UK has exported goods worth Can $ 5,00,000 receivable in 6 months. The exporter wants to hedge the receipt in the forward market. The following information is available:

Spot Exchange Rate	Can $ 2.5/£
Interest Rate in UK	12%
Interest Rate In Canada	15%

The forward rates truly reflect the interest rates differential. Find out the gain/loss to UK exporter if Can $ spot rates (i) declines 2%, (ii) gains 4% or (iii) remains unchanged over next 6 months. **(4 Marks)**

(c) Explain the structure of Venture Capital Fund in India. **(4 Marks)**

3. (a) Following information are available in respect of XYZ Ltd. which is expected to grow at a higher rate for 4 years after which growth rate will stabilize at a lower level:

Base year information:

Revenue	- ₹ 2,000 crores
EBIT	- ₹ 300 crores
Capital expenditure	- ₹ 280 crores
Depreciation	- ₹200 crores

Information for high growth and stable growth period are as follows:

	High Growth	**Stable Growth**
Growth in Revenue & EBIT	20%	10%
Growth in capital expenditure and depreciation	20%	Capital expenditure are offset by depreciation
Risk free rate	10%	9%
Equity beta	1.15	1
Market risk premium	6%	5%
Pre-tax cost of debt	13%	12.86%
Debt equity ratio	1 : 1	2 : 3

For all time, working capital is 25% of revenue and corporate tax rate is 30%.

What is the value of the firm? (**10 Marks)**

Either

(b) In post-pandemic time their role has been advanced in the different areas in addition to traditional role. Give your views to support the statement.

Or

What do you mean by Credit Default Swap (CDS)? Who are the parties involved in CDS? **(4 Marks)**

4. (a) The following information is provided relating to the acquiring company E Ltd., and the target company H Ltd:

Particulars	**E Ltd. (₹)**	**H Ltd. (₹)**
Number of shares (Face value ₹ 10 each)	20 Lakhs	15 Lakhs
Market Capitalization	1000 Lakhs	1500 Lakhs
P/E Ratio (times)	10.00	5.00
Reserves and surplus in ₹	600.00 Lakhs	330.00 Lakhs
Promoter's Holding (No. of shares)	9.50 Lakhs	10.00 Lakhs

The Board of Directors of both the companies have decided to give a fair deal to the shareholders. Accordingly, the weights are decided as 40%, 25% and 35% respectively for earnings (EPS), book value and market price of share of each company for swap ratio.

Calculate the following:

(i) Market price per share, earnings per share and Book Value per share;

(ii) Swap ratio;

(iii) Promoter's holding percentage after acquisition;

(iv) EPS of E Ltd. after acquisitions of H Ltd;

(v) Expected market price per share and market capitalization of E Ltd.; after acquisition, assuming P/E ratio of E Ltd. remains unchanged; and

(vi) Free float market capitalization of the merged firm.**(10 Marks)**

(b) List the similarities between Tokenization and Securitization.

(4 Marks)

5. (a) Suppose MIS Ltd. is considering installation of solar electricity generating plant for light the staff quarters. The plant shall cost ₹ 2.50 crore and shall lead to saving in electricity expenses at the current tariff by ₹ 21 lakh per year forever.

However, with change in Government in state, the rate of electricity is subject to change. Accordingly, the saving in electricity can be of ₹ 12 lakh or ₹ 35 lakh per year and forever.

Assuming WACC of MIS Ltd. is 10% and risk-free rate of rate of return is 8%.

Decide whether MIS Ltd. should accept the project or wait and see.

(8 Marks)

(b) Suppose a dealer quotes 'All-in-cost' for a generic swap at 8% against six month LIBOR flat. If the notional principal amount of swap is ₹ 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 LIBOR 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?

Generic swap is based on 30/360 days basis. **(6 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 real 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)	-50,000	-1,500	-2,000	-2,500
Cash flows in African Rands (000)	-2,00,000	+50,000	+70,000	+90,000

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 following:

(i) African Rand cash flows are converted into rupees and discounted at a risk adjusted rate.

(ii) All cash flows for these projects will be discounted at a rate of 20% to reflect its high risk.

(iii) Ignore taxation.

	Year - 1	Year – 2	Year - 3
PVIF @ 20%	0.833	0.694	0.579

(8 Marks)

(b) You as an investor had purchased a 4-month call option on the equity shares of X Ltd. of ₹ 10, of which the current market price is ₹ 132 and the exercise price ₹ 150. You expect the price to range between ₹ 120 to ₹ 190. The expected share price of X Ltd. and related probability is given below:

Expected Price (₹)	120	140	160	180	190
Probability	0.05	0.20	0.50	0.10	0.15

Compute the following:

(i) Expected Share price at the end of 4 months.

(ii) Value of Call Option at the end of 4 months, if the exercise price prevails.

(iii) In case the option is held to its maturity, what will be the expected value of the call option? **(6 Marks)**