PART A : MCQ 14 MARKS

Case Scenario

You are a Portfolio Manager (PM) having the following four stocks in your portfolio:

Security	No. of Shares	Market price per share	β
RIL	10,000	50	0.9
ZOM	5,000	20	1.0
ONE	8,000	25	1.5
ELX	2,000	200	1.2

Question : 1 **2 Marks**

Compute the portfolio beta

a) Rs. 1.180

b) Rs. 1.108

c) Rs. 1.081

d) Rs. 1.810

Question : 2 **2 Marks**

If the portfolio beta is to be reduced to 0.8, how much risk-free investment should be brought in?

a) Rs. 2,96,172

b) Rs. 1,16,968

c) Rs. 4,62,050

d) Rs. 3,01,851

Question : 3 **2 Marks**

If the portfolio beta is to be increased to 1.2, how much risk-free investment should be brought in?

a) – Rs. 1,10,803
b) Rs. 1,10,803
c) Rs. 91,967
d) - Rs. 91,967

Case Scenario

Mr. A is interested in investing 1,00,000 for which he is considering following three alternatives:

(i) Invest 1,00,000 in Mutual Fund X (MFX)
(ii) Invest 1,00,000 in Mutual Fund Y (MFY)
(iii) Portfolio-Invest 60,000 in Mutual Fund X (MFX) and Rs. 40,000 in Mutual Fund Y (MFY)

Average annual return earned by MFX and MFY is 12% and 11% respectively. Risk free rate of return is 8% and market rate of return is 10%.

Covariance of returns of MFX, MFY and market portfolio Mix are as follow:

Particulars	MFX	MFY	Portfolio
MFX	4400	4300	3370
MFY	4300	4200	2800
Portfolio	3370	2800	4200

Based on the above information answer the following questions:

Question : 4 **2 Marks**

Standard Deviation of MFX is…

a) 2.0736
b) 2.0976
c) 1.8358
d) 2.0494

Question : 5 **2 Marks**

Portfolio return would be…

a) 11.00%
b) 12.00%
c) 11.50%
d) 11.60%

Question : 6 **2 Marks**

The following information is available in respect of Security X

Equilibrium Return	15%
Market Return	15%
7% Treasury Bond Trading at	$140
Covariance of Market Return and Security Return	225%
Coefficient of Correlation	0.75

You are required to determine the Standard Deviation of Security Return.

a) 15%
b) 20%

c) 5%

d) 12%

Question : 7 **2 Marks**

Mr. Tumer intends to invest in equity shares of a company the value of which depends upon various parameters as mentioned below:

Factor	Beta	Expected value in %	Actual value in %
GNP	1.20	7.70	7.70
Inflation	1.75	5.50	7.00
Interest rate	1.30	7.75	9.00
Stock market index	1.70	10.00	12.00
Industrial production	1.00	7.00	7.50

If the risk-free rate of interest be 9.25%, how much is the return of the share under Arbitrage Pricing Theory?

a) 8.16%

b) 17.41%

c) 9.25%

d) 10.87%

PART B : DESCRIPTIVE 46 MARKS

Question : 1 **6 Marks**

The following information are available with respect of Krishna Ltd.

Year	Krishna Ltd. Average share price	Dividend per Share	Average Market Index	Dividend Yield	Return on Govt. Bonds
2012	245	20	2013	4%	7%
2013	253	22	2130	5%	6%
2014	310	25	2350	6%	6%
2015	330	30	2580	7%	6%

Compute Beta Value of the Krishna Ltd. at the end of 2015 and state your observation.

Question : 2 **8 Marks**

Ramesh wants to invest in stock market. He has got the following information about individual securities:

Security	Expected Return	Beta	σ^2 ci
A	15	1.5	40
B	12	2	20
C	10	2.5	30
D	09	1	10
E	08	1.2	20
F	14	1.5	30

Market index variance is 10 percent and the risk-free rate of return is 7%. What should be the optimum portfolio assuming no short sales?

Question : 3 **5 Marks**

Suppose that economy A is growing rapidly and you are managing a global equity fund that has so far invested only in developed-country stocks. 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 estimated for the aggregate stock market of developed countries and stock market of Economy A).

	Developed country stocks	Stocks of Economy A
Expected rate of return (annualized percent)	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:

(a) 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%?

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

(c) Also show how well the Fund will be compensated for the risk undertaken due to inclusion of stocks of Economy A in the portfolio?

Question : 4 **8 Marks**

Mr. A is holding 1000 shares of face value of ₹100 each of M/s. ABC Ltd. He wants to hold these shares for long term and have no intention to sell.

On 1st January 2020, M/s XYZ Ltd. has made short sales of M/s. ABC Ltd.'s shares and approached Mr. A to lend his shares under Stock Lending Scheme with following terms:

(i) Shares to be borrowed for 3 months from 01-01-2020 to 31-03-2020,

(ii) Lending Charges/Fees of 1% to be paid every month on the closing price of the stock quoted in Stock Exchange and

(iii) Bank Guarantee will be provided as collateral for the value as on 01 -01-2020.

Other Information:

a. Cost of Bank Guarantee is 8% per annum,

b. On 29-02-2020 M/s. ABC Ltd.'s share quoted in Stock Exchange on various dates are as follows:

Date	Share Price in Scenario -1 Bullish	Share Price in Scenario -2 Bullish
01-01-2020	1000	1000
31-01-2020	1020	980
29-02-2020	1040	960
31-03-2020	1050	940

You are required to find out:

(i) Earning of Mr. A through Stock Lending Scheme in both the scenarios,

(ii) Total Earnings of Mr. A during 01-01-2020 to 31-03-2020 in both the scenarios,

(iii) What is the Profit or loss to M/s. XYZ by shorting the shares using through Stock Lending Scheme in both the scenarios?

Question : 5 **5 Marks**

Expected returns on two stocks for particular market returns are given in the following table:

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

You are required to calculate:

(i) The Betas of the two stocks.

(ii) Expected return of each stock, if the market return is equally likely to be 7% or 25%.

(iii) The Security Market Line (SML), if the risk free rate is 7.5% and market return is equally likely to be 7% or 25%.

(iv) The Alphas of the two stocks.

Question : 6 **4 Marks**

In the current scenario of globalization and growth in information and communication technologies etc. the responsibilities of CFOs have been drastically expanded. Explain.

Question : 7 **4 Marks**

Financial Planning, its components & Outcomes of Financial Planning.

Question : 8 (Previous Syllabus Question) **6 Marks**

Equity of KGF Ltd. (KGFL) is ₹410 Crores, its debt, is worth ₹170 Crores. Printer Division segments value is attributable to 74%, which has an Asset Beta (βp) of 1.45, balance value is applied on

Spares and Consumables Division, which has an Asset Beta (βsc) of 1.20 KGFL Debt beta (βD) is 0.24.

You are required to calculate:

(i) Equity Beta (βE),

(ii) Ascertain Equity Beta (βE), if KGF Ltd. decides to change its Debt Equity position by raising further debt and buying back of equity to have its Debt Equity Ratio at 1.90.

Assume that the present Debt Beta (βD1) is 0.35 and any further funds raised by way of Debt will have a Beta (βD2) of 0.40.

ALL THE BEST