Paper 14 - Advanced Financial Management

Case Study 1

A has invested in three mutual fund schemes as per details below:

	MF 1	MF 2	MF 3
Date of investment	01.12.2009	01.01.2010	01.03.2010
Amount of investment	`50,000	`1, 00,000	`50,000
Net Asset Value (NAV) at entry date	`10.50	`10	`10
Dividend received upto 31.03.2013	`970	`1,520	Nil
NAV as at 31.03.2013	`10.40	`10.10	`9.80

What is the effective yield on per annum basis in respect of each of the three schemes to Mr. Varun upto 31.03.2010?

Case Study 2

Equi-Stable, is a portfolio model where in 20% of Fund Value is invested in Fixed Income Bearing Instruments. The Balance of 80% is divided among Old Industry Stock (Iron and Steel), Automotive Industry Stock, Information Technology Stocks, infrastructure Company Stocks and Financial Services Sector in the ratio of 4:2:6:3:5.

Three mutual funds X, Y and Z, offer a Fund Scheme based on the Equi-Stable Portfolio Model. The actual return on Equi-Stable portfolios of each of the three funds for the past 3 years is as follows —

Year	1	2	3
Portfolio X	17.35%	18.70%	21.60%
Portfolio Y	17.20%	18.25%	22.15%
Portfolio Z	17.10%	18.60%	22.00%

Beta factor of the Equi-Stable portfolio is measured at 1. 35. Return on Market Portfolio indicate that `1000 invested will fetch `153 in an year (including capital appreciation and dividend yield). RBI Bonds, guaranteed by the Central Government yields 4.50%.

Rate the fund managers of X, Y and Z.

Case Study 3

A new equity based mutual fund collected ` 50 crores through the New Fund Offer at ` 10 a unit. On the first day when the NAV was to be released, the following stock purchases were made.

The balance was parked in reverse repo for a day at 6% yield. The initial expense is 6% and is expected to be amortized over 5 years. The total recurring expenses which would be deducted on a daily basis (which also includes investment and advisory fees for this fund size) is 2.5% per annum. Assume recurring expenses is charged on opening balance of net assets. Find 1st day NAV for this fund.

Name of the stock	Qty.	Cost	Closing price
BHEL	2500	1968.00	1968.25
Infosys	3000	1600.00	1630.20
TCS	2500	928.00	928.00
ITC	25600	169.00	164.55
Reliance Communication	16500	265.00	258.20

Case Study 4

On 19th July following are the spot rates - Spot USD / EUR 1.20000 INR / USD
Following are the quotes of European Options;

Currency Pair	Call/Put,	Strike Price	Premium	Expiry Date
USD/EUR	Call	1.2000	$ 0.035	Oct. 19
USD/EUR	Put	1.2000	$0.04	Oct.19
INR/USD	Call	44.8000	Re.0.12	Dec. 19
INR/USD	Put	44.8000	Re.0.04	Dec.19

(i) A Trader sells an At-The-Money Spot Straddle expiring at three months (Oct. 19). Calculate the gain or loss if three months later the spot rate is USD / EUR 1.2900.
(ii) Which strategy gives a profit to the dealer if five months later (Dec. 19) expected spot rate is INR / USD 45.00. Also calculate profit for a transaction of USD 1.40 Millions.

Case Study 5

A firm has an investment proposal, requiring an outlay of ` 80,000. The investment proposal is expected to have two years economic life with no salvage value. In year 1, there is a 0.4 probability that cash inflow after tax will be ` 50,000 and 0.6 probability that cash inflow after tax will be ` 60,000. The probability assigned to cash inflow after tax for the year 2 are as follows:

The cash inflow year 1	` 50,000		` 60,000	
The cash inflow year 2	Probability		Probability	
	` 24,000	0.2	` 40,000	0.4
	` 32,000	0.3	` 50,000	0.5

	` 44,000	0.5	` 60,000	0.1

The firm uses a 8% discount rate for this type of investment.

Required:

(i) Construct a decision tree for the proposed investment project and calculate the expected net present value (NPV).

(ii) What net present value will the project yield, if worst outcome is realized? What is the probability of occurrence of this NPV?

(iii) What will be the best outcome and the probability of that occurrence?

(iv) Will the project be accepted?

(Note: 8% discount factor 1 year 0.9259; 2 year 0.8573)