Reg. No.

III Semester M.B.A. (Day & Evening) Degree Examination, March/April - 2022
MANAGEMENT
Investment Analysis & Portfolio Management
(CBCS Scheme 2019 onwards)
Paper : 3.2.1

Time : 3 Hours   Maximum Marks : 70

SECTION - A

Answer any **five** of the following questions. Each question carries 5 marks.   (5×5=25)

1. Briefly explain the recent developments in Indian stock market.

2. Explain the separation theorem of CAPM model.

3. Briefly explain the importance of RSI as technical tool in stock market.

4. Explain various money market instruments in detail.

5. With the given details, evaluate the performances of the different funds using Sharpe, Treynor and Jensen performance evaluation techniques.

Funds	Return	Standard Deviation	Beta
A	12	20	0.98
B	12	18	0.97
C	8	22	1.17
D	9	24	1.22

Risk free rate of return is 4 per cent. Market return is 10%.

6. A portfolio consists of 3 securities, 1,2 and 3. The proportions of these securities are : $w_1 = 0.3, w_2 = 0.5, and\ w_3 = 0.2$. The standard deviations of returns on these securities (in percentage terms) are : $\sigma_1 = 6, \sigma_2 = 9$ and $\sigma_3 = 10$. The correlation coefficients among security returns are $p_{12} = 0.4, p_{13} = 0.6, p_{23} = 0.7$. What is the standard deviation of portfolio return?

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7. The *XY* company stock's return depends heavily on the market return, the beta being 1.4, the risk - free rate of return is 8 per cent and the market return is 15 per cent.

   a. Determine the expected return for *XY* stock.

   b. What happens to expected return if the market return increases to 20 per cent?

   c. What happens to the return if beta falls to .90 while the other inputs remain the same.

SECTION - B

Answer any **three** of the following questions. Each question carries **10 marks.(3×10=30)**

8. Assume you have recently graduated as a major in finance and have been hired a finance planner by Radiant securities, a financial services company. You have been given the following information :

Year	Return on Tisco (Y)	Return on BSE Sensex (X)
2005	0.2	0.1
2006	0.3	0.2
2007	0.5	0.3
2008	0.4	0.4
2009	0.6	0.5

   You have been asked to answer the following questions :

   a. What is the beta value?

   b. What is the alpha value?

   c. What is the residual variance of TISCO and BSE Index?

   d. What is the coefficient of correlation? Comment on your results.

9. Calculate the portfolio risk and return for the Portfolio comprising of stocks given below and interpretate the result

M&M		Lupin Ltd	
Month	Close	Month	Close
13-May	965.3	13-May	805.6
13-Jun	966.55	13-Jun	861.85
13-Jul	912.15	13-Jul	871.6
13-Aug	781	13-Aug	851.55

13-Sep	827.8	13-Sep	822.35
13-Oct	888.35	13-Oct	912.35
13-Nov	945.6	13-Nov	853.1
13-Dec	943.5	13-Dec	894.8
14-Jan	890.45	14-Jan	830.85
14-Feb	973.45	14-Feb	799.25
14-Mar	980.65	14-Mar	929.5
14-Apr	1,913.45	14-Apr	935.3

Assume :

1. No dividends have been paid on any of the given scrips for the period under consideration.

2. The Portfolio funds are divided equally amongst scrips.

3. The correlation between pair of security is +0.5.

10. The opne period rates of return on stock B and the market portfolio for a 20-year period are given below :

Period	Return on stock B (%)	Return on Market Portfolio (%)	Period	Return on stock B(%)	Return on Market Portfolio (%)
1	15	9	11	-2	12
2	16	12	12	12	14
3	10	6	13	15	-6
4	-15	4	14	12	2
5	-5	16	15	10	8
6	14	11	16	9	7
7	10	10	17	12	9
8	15	12	18	9	10
9	12	9	19	22	37
10	-4	8	20	13	10

What is the beta for stock β? What is the characteristics line?

11. "Behavioral finance rests on the premise that real people make decisions in the way that cannot be explained by the standard theories" Explain this statement and discuss various Behavioral biases that affect the investor's investment decisions.

SECTION - C

Compulsory question. (1×15=15)

12. a) Using Sharpe model of portfolio optimization, construct the optimum portfolio out of the following securities assuming $R_f = 7\%$ and $\sigma_m^2 = 25\%$.

No.	Stock name	Expected Return	Unsystematic Risk	Beta
1	ACC	5.00	25.00	0.50
2	ZEE	25.00	20.00	2.50
3	ITC	15.00	10.00	1.00
4	SAIL	10.00	10.00	1.50
5	PTC	20.00	18.00	1.80

b) How is the Sharpe's Optimal Portfolio different from the Markowitz optimal Portfolio?