Birla Institute of Management LIBRARY M.P.

62222

Reg. No. | | | | | | | | |

III Semester M.B.A. Degree Examination, March - 2021
MANAGEMENT
Investment Analysis and Portfolio Management
(CBCS Scheme 2019-20)
Paper : 3.2.1

Time : 3 Hours **Maximum Marks : 70**

SECTION - A

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

1. Discuss Efficient market Hypothesis.
2. Distinguish between CML and SML
3. Briefly explain the concepts of alpha and beta and its practical application.
4. An investor wants to analyse his portfolio using Markowitz or Sharpe techniques. His portfolio consists of 25 different stocks. He is not aware of the bits of information needed to evaluate the portfolio. He wants to adopt a technique which requires minimum information. As a portfolio manager which method would you advise him to use? Reason out your answer.
5. The one period rates of return on stock B and the market portfolio for a 20 year period are given below:

Period	Return on stock j	Return on Market Portfolio(%)
1	10	12
2	6	5
3	13	18
4	-4	-8
5	13	10
6	14	16
7	4	7
8	18	15
9	24	30
10	22	35

What is the beta for stock β for Security j?

P.T.O.

Birla Institute of Management LIBRARY M.P.

6. The following data are available to you as portfolio manager:

Stock	Estimated Return (in%)	Beta
A	30	2
B	25	1.5
C	20	1
D	11.5	0.80
E	10	0.50
Market Index	15	1
Government Securities	7	0

1. In terms of securities market line, which of the securities listed above are underpriced?

2) Assume that the portfolio is constructed using equal proportions of the five securities listed above; calculate the expected return and risk of such a portfolio.

7. Following table provides the details about 3 portfolios. Find out the difference between the actual and expected return using Jensen Index. On the basis of your calculation rank them.

Portfolio	Return on portfolio	Portfolio Beta	Risk Free Interest Rate
1	15	1.3	6%
2	12	0.9	6%
3	18	1.6	6%
Market Index	11	1.0	6%

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)
2015	0.2	0.1
2016	0.3	0.2
2017	0.5	0.3
2018	0.4	0.4
2019	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.

Birla Institute of Management M.P. LIBRARY

9. 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

10. "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 also discuss various behavioral biases that affect the investor's investment decisions.

11. "Money market plays a key role in the Indian securities market". Explain the statement and also discuss various money market instruments in detail.

SECTION - C

Compulsory **(1×15=15)**

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

M&M		Lupin Ltd.		NTPC	
Month	**Close**	**Month**	**Close**	**Month**	**Close**
13-May	965.3	13-May	805.6	13-May	154.4
13-June	966.55	13-June	861.85	13-June	143.7
13-July	912.15	13-July	871.6	13-July	130.6
13-Aug	781	13-Aug	851.55	13-Aug	130.75
13-Sep	827.8	13-Sep	822.35	13-Sep	148.2
13-Oct	888.35	13-Oct	912.35	13-Oct	148.7
13-Nov	945.6	13-Nov	853.1	13-Nov	147.35
13-Dec	943.5	13-Dec	894.8	13-Dec	136.8
14-Jan	890.45	14-Jan	830.85	14-Jan	126.4
14-Feb	973.45	14-Feb	799.25	14-Feb	112.6
14-Mar	980.65	14-Mar	929.5	14-Mar	119.95
14-Apr	1,913.45	14-Apr	935.3	14-Apr	116.25

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 all competent scrips.
3. The correlation between each pair of security is +0.5