

Internal Assessment Test - I

Sub:	Investment Management						Code:	20MBAFM303			
Date	27/12/2022	Duration	90 mins	Max Marks:	50	Sem:	III	Branch	MBA		

Part A: (Answer any 2 full questions)

Marks	OBE	
	CO	RBT
[03]	CO1	L2
[07]	CO1	L2
[10]	CO1	L3

1 (a) What does beta = +2 indicates?

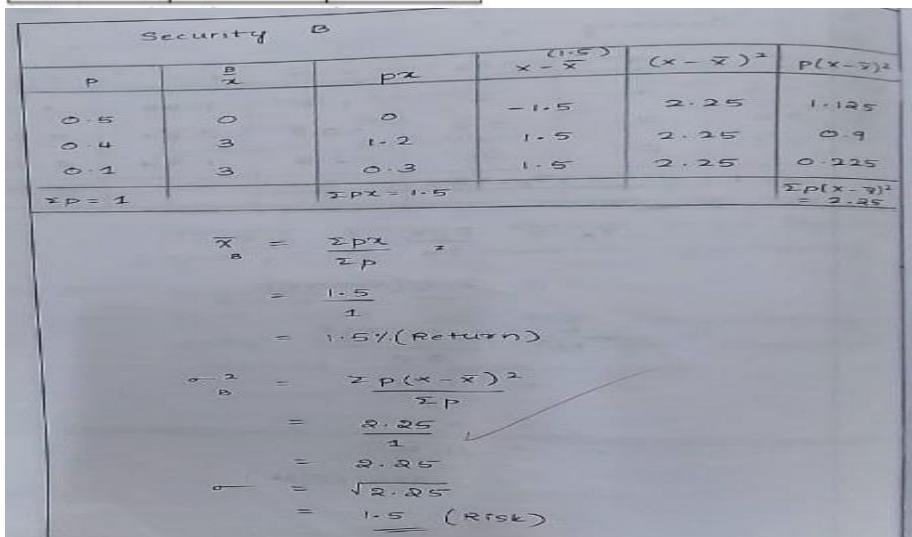
Say a company has a beta of 2. This means it is two times as volatile as the overall market. We expect the market overall to go up by 10%. That means this stock could rise by 20%.

(b) Explain the features of a good investment.

Characteristics of investment The features of economic and financial investments can be summarized as return, risk, safety, and liquidity. with the primary objective of deriving a return. The return may be received in the form of yield plus capital appreciation.

(c) Find out the risk and return of securities A & B, Give the security of your reference. Security has been selected on the basis on risk and returns.

Probability	Security A	Security B
0.5	4	0
0.4	2	3
0.1	0	3



Security B

P	$\frac{B}{x}$	Px	$x - \bar{x}$	$(x - \bar{x})^2$	$P(x - \bar{x})^2$
0.5	0	0	-1.5	2.25	1.125
0.4	3	1.2	1.5	2.25	0.9
0.1	3	0.3	1.5	2.25	0.225
$\sum P = 1$		$\sum Px = 1.5$			$\sum P(x - \bar{x})^2 = 2.25$

$$\bar{x}_B = \frac{\sum Px}{\sum P} = \frac{1.5}{1} = 1.5\% \text{ (Return)}$$

$$\sigma_B^2 = \frac{\sum P(x - \bar{x})^2}{\sum P} = \frac{2.25}{1} = 2.25$$

$$\sigma = \sqrt{2.25} = 1.5 \text{ (Risk)}$$

1. (c) Security A

P	x	Px	x - \bar{x}	(x - \bar{x}) ²	P(x - \bar{x}) ²
0.5	4	2	1.2	1.44	0.72
0.4	2	0.8	-0.8	0.64	0.256
0.1	0	0	-2.8	7.84	0.784
$\Sigma P = 1$		$\Sigma Px = 2.8$			$\Sigma P(x - \bar{x})^2 = 1.76$

$$\bar{x}_A = \frac{\Sigma Px}{\Sigma P} = \frac{2.8}{1} = 2.8 \text{ (Return)}$$

$$\sigma_A^2 = \frac{\Sigma P(x - \bar{x})^2}{\Sigma P} = \frac{1.76}{1} = 1.76$$

$$\sigma = \sqrt{1.76} = 1.326 \text{ (RISK)}$$

2(a) Difference between economic and financial investment.
 Economic investors look at everything from the behaviour of humans to the supply and demand of products and services. In contrast, financial investors employ a system including everything from banks to loans to investments to savings and everything in between.

(b) What is risk? Explain different types of risk of systematic and unsystematic.
 Unsystematic risk is a risk specific to a company or industry, while systematic risk is the risk tied to the broader market. Systematic risk is attributed to broad market factors and is the investment portfolio risk that is not based on individual investments.

(c) What is investment attribute? Explain the investment avenue.
 Return, risk, liquidity, tax benefits, and convenience are the key attributes considered before investing in any particular type of investment. This evaluation of investment takes place to decide or choose a suitable investment.
 Investment avenues are the different ways that you can invest your money. Financial securities including equity shares are one type of investment avenues. Mutual funds, non-securitized financial securities, and real assets are investment avenues.

3 (a) What is risk and return trade off?
 What is 'Risk Return Trade Off' Definition: Higher risk is associated with greater probability of higher return and lower risk with a greater probability of smaller return. This trade off which an investor faces between risk and return while considering investment decisions is called the risk return trade off.

(b) What is Indian Stock Exchange? Explain different sectors.
 The Indian market has eleven sectors that accommodate in themselves all the industries and companies. The sectors include financials, healthcare, real estate, energy, consumer staples, communications, among many others. The different sectors cover a lot of different industries.

[03]

[07]

[10]

[03]

[07]

	CO1	L1
	CO1	L2
	CO2	L2
	CO1	L1
	CO1	L2

(c) How beta is playing important role investment? Explain it with example.

[10]

CO1

L2

Beta (β) is a measure of the volatility—or systematic risk—of a security or portfolio compared to the market as a whole (usually the S&P 500). Stocks with betas higher than 1.0 can be interpreted as more volatile than the S&P 500.

Beta is used in the capital asset pricing model (CAPM), which describes the relationship between systematic risk and expected return for assets (usually stocks). CAPM is widely used as a method for pricing risky securities and for generating estimates of the expected returns of assets, considering both the risk of those assets and the cost of capital.

Part B (Mandatory 10 marks)

4

Monthly return data (in per cent) are presented below for ITC stock and BSE National Index for a 12 month period.

CO2

L3

Month	ITC	BSE National Index
1	9.43	7.41
2	0.00	-5.33
3	-4.31	-7.35
4	-18.92	-14.64
5	-6.67	1.58
6	26.57	15.19
7	20.00	5.11
8	2.93	0.76
9	5.25	-0.97
10	21.45	10.44
11	23.13	17.47
12	32.83	20.15

Calculate beta of ITC stock.

(4)

PART - B					
Month	ITC (y)	BSE (x)	xy	x ²	y ²
1	9.43	7.41	69.87	54.90	88.92
2	0.00	-5.33	0	28.40	0
3	-4.31	-7.35	31.67	54.02	18.57
4	-18.92	-14.64	276.98	214.32	357.96
5	-6.67	1.58	-10.53	2.49	44.48
6	26.57	15.19	403.59	230.73	705.96
7	20.00	5.11	102.2	26.11	400
8	2.93	0.76	2.22	0.57	8.58
9	5.25	-0.97	-5.09	0.94	27.56
10	21.45	10.44	223.93	108.99	460.10
11	23.13	17.47	404.08	305.20	534.99
12	32.83	20.15	646.41	406.02	1077.80
	111.69	49.82	2145.33	1432.69	3724.92



Cognitive level	KEYWORDS
L1	List, define, tell, describe, identify, show, label, collect, examine, tabulate, quote, name, who, when, where, etc.
L2	summarize, describe, interpret, contrast, predict, associate, distinguish, estimate, differentiate, discuss, extend
L3	Apply, demonstrate, calculate, complete, illustrate, show, solve, examine, modify, relate, change, classify, experiment, discover.
L4	Analyze, separate, order, explain, connect, classify, arrange, divide, compare, select, explain, infer.
L5	Assess, decide, rank, grade, test, measure, recommend, convince, select, judge, explain, discriminate, support, conclude, compare, summarize.

Course Outcomes		Blooms Level	Modules covered	PO1	PO2	PO3	PO4	PO5
CO1	The student will understand the capital market and various Instruments for Investment.	1,2	1,2	1a,1b,1c,2a,2b,3a,3b,3c,				
CO2	The learner will be able to assess the risk and return associated with investments and methods to value securities.	3,4	2,3					2c,4
CO3	The student will be able to analyses the Economy, Industry and Company framework for Investment Management.	5	4,5					
CO4	The student will learn the theories of Portfolio management and also the tools and techniques for efficient portfolio management.	5,6	6					

CT

CCI

HOD

$$\begin{aligned}
 \rightarrow \sigma_y^2 &= \frac{ny^2 - (y)^2}{n^2} \\
 &= \frac{12(3724.92) - (111.69)^2}{12^2} \\
 &= 309.46 \\
 \Rightarrow \sigma_y &= \sqrt{309.46} = 17.59 \\
 \rightarrow \beta &= \frac{\sum x_i y_i}{\sum x_i^2} \\
 &= \frac{0.92 \times 17.59 \times 10 \cdot 10}{102.15} \\
 &= 1.60
 \end{aligned}$$

$$\begin{aligned}
 &= \frac{12(2145.33) - (49.82)(111.69)}{\sqrt{12(1432.69) - (49.82)^2} \times \sqrt{12(3724.92) - (111.69)^2}} \\
 &= \frac{20,179.5642}{21,771.9916} \\
 r &= 0.92 \\
 \rightarrow \sigma_x^2 &= \frac{nx^2 - (x)^2}{n^2} \\
 &= \frac{12(1432.69) - (49.82)^2}{(12)^2} \\
 &= 102.15 \\
 \sigma_x &= \sqrt{102.15} = 10.10
 \end{aligned}$$