TECH	TUTE OF NOLOGY		SN	Assessment Test	-3			18MBA	CMR EM302		<b>.</b>
C	In a Managam	ent	Internal				Code:		[11502		-
Sub: Date:	Investment Managem	Duration: 90	mins M	ax Marks: 50	Sem:	III	Branch:	MBA		401 404	
Jaic.	18-11-2019	Duration.							O	BE	,
		-	(0.100, 40.)	Marks)				Marks	CO	RB	Γ
Part A	A - Answer Any Two Fu	all Questions	(2*20=40)	VIAI KS)				[03]	CO2	L	 [
(a)	What is CAPM?			19				-		- T	<u> </u>
(1-)	Differentiate between	SML and C	ML					[07]	CO2	L.	Z
(b)	Differentiate between	SIVIL and O		. Ti fanda or	a Index fi	ınd and	l equity	[10]	CO	2 L	3
(c)	Sun Rise company ma	mages two n	nutual func	ds. The runds are	e muck re	1110 001					
	fund. The data below	provide the	key statisu	cai information						110	
	Growth fund	Return		Beta	σ	r					
	V	15		1.15	16	0.68				İ	
	X	15			10	0.83					
	Υ .	13		1.25	18	0.83					
	Z	14		1.0	12	1.00	)		7	1	
				2 23 2 2		+	i				
	Rf	5%					11	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -			
		カン							1		
		to the Jense	en method	, Which fund pe	erforms w	ell					
	a) According			Which fund pe			٠.				
	a) According			, Which fund pensists more of sy							
	a) According b) In your, or	oinion, whic	ch fund cor					[03	1 C	05	T.1
	a) According b) In your, or What is Arbitrage Pr	oinion, whic	ch fund con	nsists more of sy	ystematic	risk?	* .	[03	-	05	
	a) According b) In your, op What is Arbitrage Pr	pinion, which	ch fund con	nsists more of sy	ystematic	risk?	ividend	l in [07	-	O5 O2	
2 (a) (b)	a) According b) In your, or What is Arbitrage Pr Texton Ltd is expecte subsequent year is ex	pinion, which icing theory at to buy a spected to g	th fund control  dividend of the row at the	of Rs 7 in the n	ystematic next year. r year. If	risk? The d	quirea i	l in [07	-		
	a) According b) In your, op What is Arbitrage Pr Texton Ltd is expected subsequent year is expected of return is 15% per year.	pinion, which icing theory ed to buy a spected to give year, what w	th fund control  dividend of the row at the	of Rs 7 in the n	ystematic next year. r year. If	risk? The d	quirea i	l in [07	-		
(b)	a) According b) In your, on What is Arbitrage Proceeding Texton Ltd is expected subsequent year is expected of return is 15% per years its market value is Rs	pinion, which icing theory a to buy a typected to give year, what we say	ch fund con ??  dividend of  row at the  vould be it	of Rs 7 in the nate of 10% person price? Is it ad	ystematic next year. or year. If lvisable to	The d	quired i he shar	l in [07 rate e if	7] C		L3
(b)	a) According b) In your, op What is Arbitrage Pr Texton Ltd is expected subsequent year is expected of return is 15% per year.	pinion, which icing theory at the buy a spected to give year, what we see 150 unit in mutu	th fund conditions of the fund for the fund fund fund for the fund fund fund for the fund fund fund fund fund fund fund fund	of Rs 7 in the nate of 10% persence? Is it address the past 3 year	ystematic next year. or year. If lvisable to	The d	quired i he shar	l in [07 rate e if	7] C	O2	L1 L3
(b)	a) According b) In your, op What is Arbitrage Pr Texton Ltd is expected subsequent year is expected of return is 15% per yits market value is Rs Mr Anand is having to performance by comp	cinion, which icing theory as the decidence of the grant what we see the control of the control	ch fund conditions of the market	of Rs 7 in the nate of 10% persence? Is it address the past 3 year	ystematic next year. or year. If lvisable to	The d	quired i he shar	l in [07 rate e if	7] C	O2	L3
(b)	a) According b) In your, op What is Arbitrage Pr. Texton Ltd is expected subsequent year is expected from the subsequent is 15% per year its market value is Rs. Mr Anand is having the performance by comp.  Particulars	pinion, which icing theory at the buy a spected to give ar, what was 150 unit in mutuparing it to the binion.	ch fund conditions of the market	of Rs 7 in the nate of 10% pers price? Is it address the past 3 years.	ystematic next year. or year. If lvisable to	The d	quired i he shar	l in [07 rate e if	7] C	O2	L3
(b)	a) According b) In your, on What is Arbitrage Proceed to the subsequent year is expected to freturn is 15% per year its market value is Rs Mr Anand is having uperformance by comparaticulars  Return	cinion, which icing theory at the desired to buy a spected to give ar, what we say a 150 unit in mutur paring it to to the desired to the des	ch fund conditions of the market  Y  41.40	of Rs 7 in the rate of 10% pers price? Is it address the past 3 year	ystematic next year. or year. If lvisable to	The d	quired i he shar	l in [07 rate e if	7] C	O2	L3
(b)	a) According b) In your, on What is Arbitrage Proceeding Texton Ltd is expected subsequent year is expected of return is 15% per year its market value is Rs Mr Anand is having uperformance by compared and performance by compared are the performance by the performance	pinion, which pinion, which icing theory at the dependent of the dependent	ch fund conditions of the market	of Rs 7 in the rate of 10% pers price? Is it address the past 3 year	ystematic next year. or year. If lvisable to	The d	quired i he shar	l in [07 rate e if	7] C	O2	L3
(b)	a) According b) In your, op  What is Arbitrage Pr.  Texton Ltd is expected subsequent year is expected of return is 15% per year its market value is Rs.  Mr Anand is having to performance by compared by compared to the performance of the per	cinion, which icing theory at the desired to buy a spected to give ar, what was 150 unit in mutur paring it to the desired to	ch fund conditions of the market  Y  41.40	of Rs 7 in the rate of 10% pers price? Is it address the past 3 year	ystematic next year. or year. If lvisable to	The d	quired i he shar	l in [07 rate e if	7] C	O2	L3
(b)	a) According b) In your, op  What is Arbitrage Proceed to subsequent year is expected to subsequent year.  Particulars  Return  Return  Return	pinion, which pinion, which icing theory at the desired to give ar, what we say the say of the desired to the d	dividend or at the vould be it al fund for the market $\frac{Y}{41.40}$	of Rs 7 in the nate of 10% person price? Is it address the past 3 years.	ext year. or year. If lvisable to	The d	quired i he shar	l in [07 rate e if	7] C	O2	L3
(b)	a) According b) In your, op  What is Arbitrage Proceed to subsequent year is expected to subsequent year.  Particulars  Return	icing theory ed to buy a spected to gi year, what v s 150 unit in mutu paring it to t  X  70.60  41.31  12  1.12  1.12  1.12	dividend or at the vould be it al fund for the market $\frac{Y}{41.40}$	of Rs 7 in the nate of 10% person price? Is it address the past 3 years.	ext year. or year. If lvisable to	The d	quired i he shar	l in [07 rate e if		O2	L3

•			aulent							
overpriced,	underpriced, relativ Particulars	e to the	Expected ret	urn	β	σ				
			0.12		1	20				
	BSE Index (mark		0.12		0	0				
	Riskless Treasury	bills	0.08		1.70	50	1			
	Scrip A		0.32		1.40	35	1			
	Scrip B		0.25		1.10	40				
	Scrip C ng results were obta	inod fro	om a study for	a neri		mon	ths in 2012.	[10]	CO5	L <sub>3</sub>
(c) The following	ig results were obta	illea irc	mi a study 101	u p-17	_					
Part	iculars	Rp	σр	β	_					
Bala	anced fund	25.38	4.0	0.23						
Sma	all and Mid cap	36.28	6.86	0.52						
func	i			1.7	_			437 h		
Infra	a fund	45.56	4.31	0.63			£			
Nift	у	36.74	3.69	1.00						
Rf		9.00			<u> </u>	1.31	ter of the			
	g the inputs, Rank	the fund	according to	the pr	edictiv	e abii	ity of the			
fund'	s management.									
D (D C		10 man	olza)							1
	ompulsory (1*10≡					1	1 1	-6	C05	L3
4. a) Consider	the multifactor mo	del AP	T with two fa	ictors.	Portfo	lio A	has a beta	ΟΙ - 1	CUS	1,5
0.75 on factor	or 1 and a beta of portfolios are 1%	1.25 0	n factor 2. 11 // respectively	ne risk , The	risk fi	ree ra	te of return	is [05]		
and factor 2	e the expected retu	im on n	ortfolio A if n	io arbi	trage e	xists	01 1010111			
•										
b) Broadway	Investment Co. m	anages	equity fund co	onsist	ing of s	stoc	ks with the	[05]	COS	L3
	arket values and ca	lculate	its portfolio b	eta ar	id expe	ected i	return using			
CAPM	Stock	Morks	et Value(Rs)	Be	ta					
		-		1.3						
	A B	300,0		1.3						
	C	200,0		0.9						
	D	150,0								
		100,0		0.5						
	Е	100,0		1.6	<u>'</u>					

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	Assessment	Test - 3	
Internal	Assessment	I Cat	

			Interi	nal Assessment 1	CSt	Code:	18MBAFM302
Sub:	Investment Mana	gement			Sem: III	Branch:	MBA
Date:	18-11-2019	Duration:	90 mins	Max Marks: 50	) Seitt.		

Date:	18-11-2019 Butation 7 c		O	BE	
	Marks)	arks	СО	RBT	
Part A	A - Answer Any Two Full Questions (2×20-40 Marks)	[03]	CO2	L1	-
	What is CAPM?  The Capital Asset Pricing Model (CAPM) describes the relationship between systematic risk and expected return for assets, particularly stocks. CAPM is widely used throughout finance for pricing risky securities and generating expected returns for assets given the risk of those assets and cost of capital.	[07]	CO	2 L:	2
(b)	Differentiate between SML and CML				
	CML stands for Capital Market Line, and SML stands for Security Market Line.			•	
	The CML is a line that is used to show the rates of return, which depends on risfree rates of return and levels of risk for a specific portfolio. SML, which is al called a Characteristic Line, is a graphical representation of the market's risk at return at a given time.				
	One of the differences between CML and SML, is how the risk factors are measured. While standard deviation is the measure of risk for CML, Beta coefficient determines the risk factors of the SML.				
	The CML measures the risk through standard deviation, or through a total risk factor. On the other hand, the SML measures the risk through beta, which helps to find the security's risk contribution for the portfolio.				
	While the Capital Market Line graphs define efficient portfolios, the Security Market Line graphs define both efficient and non-efficient portfolios.				
(c)	Vardhaman Ltd Co. earnings and dividends have been growing at a rate of 18% p.a. This growth rate is expected to continue for 4 years. After that the growth rate will fall to 12 % for the next 4 years. Thereafter the growth rate is expected to be 6% forever. If last dividend per share was Rs 2 and the investor's required rate of return on Vardhaman's Co. equity is 15%. What is the intrinsic value per share		[0]	CO2	L
2 (a)	and the Auditrogo Pricing theory?		[03]	CO5	I

2 (a) What is Arbitrage Pricing theory?

Arbitrage pricing theory (APT) is a multi-factor asset pricing model based on the idea that an asset's returns can be predicted using the linear relationship between the asset's expected return and a number of macroeconomic variables that capture systematic risk. It is a useful tool for analyzing portfolios from a value investing perspective, in order to identify securities that may be temporarily mispriced.

(b)	Texton Ltd is a subsequent year	r is expected to	OTOM	at the rate (	า† 10%	ner vea	ar. 11 t	ie required	luic	] CO	2 L
	of return is 15% its market value	% per year, wha	t woul	d be its pric	e? Is it	advisa	ble to	buy the shar	e if		
(c)	Mr Anand is hat performance by				ast 3 ye	ears. He	wants	s to evaluate	its [10]	COS	5 L3
	Particu	ılars X		Y						_	
	Return			11.40						İ	
	σ	41.31		19.44							
	Rf	12									
	β	1.12									
	Find out the sha		r's ind	ices, comme	ent on i	t.					
3 (a)	What is mutua A mutual fund i many investors in nature. Mutua investing in indi	s a professional to purchase sec al funds have ad	urities. Ivantag	These inves	stors ma	ay be re	tail or	institutional	[03]	CO5	L1
(b)	From the follow	ing details using	g SML	estimate wh	nether th	he secu	rities a	re	[07]	CO5	L3
	overpriced, unde	erpriced, relative		market.				7			
	Pa	rticulars		Expected	return	β	σ		THE REPORT OF THE CONTRACT IN A PARTY.		
	BS	E Index (marke	et)	0.12		1	20				
	Ris	skless Treasury	bills	0.08		0	0				
	Sci	rip A		0.32		1.70	50				
	Sci	rip B		0.30		1.40	35		***		
		rip C		0.25		1.10	40				
(c)	The following re	sults were obtai	ned fro	om a study fo	or a per	iod of 6	montl	ıs in 2012.	[10]	CO5	L3
	Particula	ars	Rp	σр	β						
	Balance		25.38	4.0	0.23						
			36.28	6.86	0.52						
	Infra fun	nd 4	15.56	4.31	0.63	7					
	Nifty		6.74	3.69	1.00						
	Rf	9	0.00								
		inputs, Rank th	e fund	according to	the pre	dictive	ability	of the			

Part B - Compulsory	(1*10=10  marks)
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4. a) Consider the multifactor model APT with two factors. Portfolio A has a beta of 0.75 on factor 1 and a beta of 1.25 on factor 2. The risk premium on the factor 1 and factor 2 portfolios are 1% and 7% respectively. The risk free rate of return is 7%. Calculate the expected return on portfolio A if no arbitrage exists

C05 L3

b) Broadway Investment Co. manages equity fund consisting of 5 stocks with the following market values and calculate its portfolio beta and expected return using CAPM

[05] CO5

L3

Stock	Market Value(Rs)	Beta
A	300,000	1.3
В	250,000	1.2
C	200,000	0.9
D	150,000	0.5
Е	100,000	1.6

	Course Outcomes	_	2			
CO1:	To understand the process of investments	POI	P02	P03	P04	PO5
CO2:	relationship, and valuation of	lc,				
CO3:	analysis	2b,		-	-	-
CO4:	To get an insight the understanding of stock market functioning in India and abroad				-	-
CO5:	10 learn the theories of portfolia			-	-	-
	management and also the tools and	la, 2a	3b, 4a,	-	-	

$$=$$
 15-5=  $4p+1.15(11-5)$ .

$$\left( \times p : 3.1 \right)$$

$$13-5= dp+1.25(11-5).$$

$$R_{p} - R_{f} = \angle p + \beta (R_{m} - R_{f}),$$
 $14 - 5 = \angle p + 1.0 (11 - 5)$ 
 $9 = \angle p + 1 (6)$ 
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out & 3 securities securities 2 persons

y is more systematic Risk based on Bele

## Muhin 25

n: 15%.

$$P_{0} = \frac{\Delta_{1}}{\sigma_{1} - 9}$$
  $\frac{7}{0.15 - 0010}$   $\frac{7}{0.05}$ 

## F

## Solutions to 2C

$$Rp - Rf = \propto p + \beta (Rm - Rf),$$
  
 $25.38 - 9 = \propto p + 0.23 (26.74-9),$   
 $16.38 = \propto p + 0.23 (27.74)$   
 $16.38 = \propto p + 6.3802$ 

$$Ji = \frac{\langle b \rangle}{\int_{3}^{2}} = \frac{10}{0.23} = \frac{43.38 - T}{5}$$

$$Rp - Rf = \propto p + \beta (Rm - Rf)$$
  
36.28 - 9 =  $\propto p + 0.52, (36.74 - 9)$ 

$$Di = \frac{\Delta b}{B^2} = \frac{12.86}{0.72}$$

$$\frac{36.562}{2p=19.08} = \frac{2p-11}{0.63}$$

nceightage calculation

Harket value (Ps), weight

EC WUBI

Stouc

300,000

A

250,000 B

200,000

\$50,000

100,000 E

10,00,000

300,000/1200,000 0.3×1.3 0.39

0.25 x 1.2 2 0.30

0.20 × 0.92 0.18

U.15 K O.5 = 0.075

0.10x 1.620.16

(.105

Bp: 1.105)