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**PRESIDENCY UNIVERSITY
BENGALURU**

SCHOOL OF MANAGEMENT

MID TERM EXAMINATIONS

Sem & AY: Odd Sem 2019-20

Date: 18.10.2019

Course Code: FIN 201

Time: 11:00AM to 12:30PM

Course Name: INVESTMENT MANAGEMENT

Max Marks: 40

Program & Sem: MBA & III

Weightage: 20%

Instructions:

- i. Answer all the Questions.

Part A [Memory Recall Questions]

Answer all the Questions. Each Question carries two marks. (3Qx2M=6M)

1. What is Market Risk? How can an investor overcome Market Risk?
(C.O.NO.1) [Knowledge]
2. What is the significance of Correlation with regard to a Portfolio? Explain.
(C.O.NO.3) [Comprehension]
3. State any five attributes of Real Estate investment. (C.O.NO.1) [Comprehension]

Part B [Thought Provoking Questions]

Answer all the Questions. Each Question carries five marks. (4Qx5M=20M)

4. The Share price of Suzlox Ltd. for a four year period is given below:

Year	Opening Price ₹	Closing Price ₹	Dividend ₹
2015	120	138	2.50
2016	138	154	2.00
2017	154	128	1.50
2018	128	168	2.00

From the above information, compute the CAGR of the Investment Returns.

(C.O.NO.2) [Application]

5. Mr Harish has provided the following details of his mutual fund investment portfolio for the Year 2018-19: (C.O.NO.2) [Application]

Asset	Opening Value	Closing Value
Equity Mutual Funds	250000	280000
Debt Mutual Funds	150000	180000
Gold Funds	100000	115000
Liquid Funds	500000	530000

What is the returns earned by this portfolio for the Year 2018-19?

6. What is risk of an investment? Also state how investment risks are classified? (C.O.NO.1) [Knowledge]
7. From the given information, compute the Covariance between the stock and the market index and interpret the same: (C.O.NO.3) [Application]

Year	Returns of Stock	Returns of Market Index
2015	10%	15%
2016	12%	14%
2017	-6%	6%
2018	10%	10%
2019	18%	6%

Part C [Problem Solving Questions]

Answer the Questions. Question carries fourteen marks. (1Qx14M=14M)

8. Mrs Maya is planning to invest in a two stock portfolio consisting of 50% of Reliance Industries and the balance 50%, **either of Tata Steel or Tata Motors**. The variables pertaining to the stocks are as follows: (C.O.NO.2&3) [Application]

Variable	Reliance Industries	Tata Steel	Tata Motors
Expected Returns	18%	12%	10%
Expected Standard Deviation	24%	20%	15%

The expected correlation between the stocks is as follows:

	Reliance Industries	Tata Steel	Tata Motors
Reliance Industries	-	0.75	0.35
Tata Steel	0.75	-	0.60
Tata Motors	0.35	0.60	-

Using the above information

- a) Compute the Returns and Risk of Portfolio Reliance Ind. and Tata Steel. [6M]
- b) Compute the Returns and Risk of Portfolio Reliance Ind. and Tata Motors. [6M]
- c) Advice Mrs Maya as to which of the two portfolios she should invest in based on risk and return. [2M]



SCHOOL OF MANAGEMENT

Semester: Odd Sem 2019-20

Course Code: FIN 201

Course Name: Investment Management

Date:

Time: 2 Hours

Max Marks: 40

Weightage: 20

Extract of question distribution [outcome wise & level wise]

Q.NO	C.O.NO	Unit/Module Number/Unit /Module Title	Memory recall type [Marks allotted] Bloom's Levels			Thought provoking type [Marks allotted] Bloom's Levels			Problem Solving type [Marks allotted]			Total Marks
			K			C			A			
1	1	1		2								2
2	3	1				2						2
3	1	1				2						2
4	2	1							5			5
5	2	1							5			5
6	2	1		5								5
7	3	1							5			5
8	2 & 3	1							14			14
	Total Marks			7		4			29			40

K = Knowledge Level C = Comprehension Level, A = Application Level

Note: While setting all types of questions the general guideline is that about 60%

Of the questions must be such that even a below average students must be able to attempt, About 20% of the questions must be such that only above average students must

be able to attempt and finally 20% of the questions must be such that only the bright students must be able to attempt.

I hereby certify that all the questions are set as per the above guidelines. [Name of faculty]

Reviewer's Comments:

Annexure- II: Format of Answer Scheme



SCHOOL OF MANAGEMENT

SOLUTION

Semester: III Sem MBA

Course Code: FIN 201

Course Name:

Date:

Time: 2 Hours

Max Marks: 40

Weightage: 20

Part A

(3Q x 2M = 6 Marks)

Q No	Solution	Scheme of Marking	Max. Time required for each Question
1	Market Risk is the most important type of systemic risk. It is the variability in the returns of a security due to the variability in the market. Any amount of diversification within a market will not reduce market risk. Market Risk of one market can be reduced by diversifying across markets. For Eg. Equity and Debt.	What ? - 1 Mark How to Reduce – 1 Mark	5 Minutes
2	Diversification is enhanced depending upon the extent to which the returns of assets “move” together. If the Correlation of returns of two assets is equal to +1, then the combination of assets (portfolio) would not lead to any diversification.	Based on key words and Content	5 minutes
3	<ul style="list-style-type: none"> • Medium Risk- Medium Return • Suited for earning regular Income and Capital Appreciation • Medium to Long Time Horizon • It is Inflation Hedge • Prone to Liquidity Risk 	Based on Points	5 Minutes

Part B

(4Q x 5M = 20 Marks)

Q No	Solution						Scheme of Marking	Max. Time require for each Question
4	Year	Opening Price ₹	Closing Price ₹	Dividend ₹	Returns		Steps 3 Marks Correct Answer 2 Marks	10 minute
	2015	120	138	2.5	0.170833333 3	1.170833		
	2016	138	154	2	0.13043478 3	1.130435		
	2017	154	128	1.5	0.15909090 9	0.840909		
	2018	128	168	2	0.328125	1.328125		
						1.478184		
						1.102636		
					CAGR	10.26%		
5	Asset	Opening Value	Closing Value	Weight	Returns	Contribution	Steps 3 Marks Correct Answer 2 Marks	10 Minute
	Equity Mutual Funds	250000	280000	0.25	0.12	0.03		
	Debt Mutual Funds	150000	180000	0.15	0.2	0.03		
	Gold Funds	100000	115000	0.1	0.15	0.015		
	Liquid Funds	500000	530000	0.5	0.06	0.03		
		1000000				10.5%		
6	Risk is the variation in expected returns. Risk is classified as Systemic and Unsystemic Risk. Systemic Risk includes Market, Interest Rate, Inflation and Political and Regulatory Risk. Unsystemic Risks include Business, Default and Liquidity Risk						Points 5 Marks	10 Minute
7	Stock		Index	Dev s	Dev M	Dev S X M	Steps 4 Marks Interpretation 1 Mark	10 Minute
	2015	10	15	1.2	4.80	5.76		
	2016	12	14	3.2	3.80	12.16		
	2017	-6	6	-14.8	-4.20	62.16		
	2018	10	10	1.2	-0.20	-0.24		
	2019	18	6	9.2	-4.20	-38.64		
		8.80	10.20			41.20		

	Co Movement of Returns is low but positive	Cov	10.30
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Part C

(1Q x 14M = 14Marks)

Q N o	Solution								Scheme of Marking	Ma requ Q	
8		RIL & TS	RIL & TM	0.5	24	576	0.25	144	Steps 12 Marks	30 M	
	Portfo lio Retur ns	15	14	0.5	20	400	0.25	100	Correct Answ 2 Marks		
	Portfo lio Risk	20.6	16.2		0.75			180			
	CV	1.37	1.16					424	20.59		
		RIL & TM takes a lesser risk for a rupee of return earned			0.5	24	576	0.25	144		
					0.5	15	225	0.25	56.25		
					0.35			63			
								263.25	16.22		



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**PRESIDENCY UNIVERSITY
BENGALURU**

SCHOOL OF MANAGEMENT

END TERM FINAL EXAMINATION

Semester: Odd Semester: 2019 - 2020

Course Code: FIN 201

Course Name: INVESTMENT MANAGEMENT

Program & Sem: MBA & III

Date: 24 December 2019

Time: 1.00 PM TO 4.00 PM

Max Marks: 80

Weightage: 40%

Instructions:

(i) Read the all questions carefully and answer accordingly.

Part A [Memory Recall Questions]

Answer all the Questions. Each Question carries 5 marks.

(6Qx5M=30M)

1. Describe the different investment alternatives and criteria for their evaluation.

(C.O.No.1) [Knowledge]

2. What is the significance of Security Market Line in the capital asset pricing model?

(C.O.No.2) [Knowledge]

3. Which are the main methods of fundamental equity valuation?

(C.O.No.3) [Knowledge]

4. Outline the Bond portfolio management strategies.

(C.O.No.5) [Knowledge]

5. Describe three types of charting techniques used in Technical Analysis.

(C.O.No.4) [Knowledge]

6. What is the relationship between interest rates and duration of bond?

(C.O.No.5) [Knowledge]

Part B [Thought Provoking Questions]

Answer all the Questions. Each Question carries 5 marks.

(4Qx5M=20M)

7. Compute the Beta of the Stock based on the returns of Stock and the Market Index for 5 years given below:

(C.O.No.2) [Comprehension]

Year	Stock	Market
	Return	Return
1	15%	12%
2	12%	10%
3	-5%	1%
4	7%	4%
5	2%	3%

8. The details of a bond are as follows:

(C.O.No.2) [Comprehension]

Face Value	Rs 800
Coupon Rate	10% pa
Coupon Payment	Annual
Maturity	4 Years
Price	Rs 890

From the above, calculate the following:

- Yield to Maturity of the Bond using approximation method.
 - The price you would pay for the bond if your required rate of return is 7.5% per annum.
9. The current dividend on an equity share of Tristar is Rs. 2.00. Tristar is expected to enjoy an above-normal growth rate of 18 percent for a period of 6 years. Thereafter the growth rate will fall and stabilize at 12 percent. Equity investors will require a return of 16 percent.

What is the intrinsic value of the equity share of Tristar?

(C.O.No.4) [Comprehension]

10. The expected returns of two stocks under four possible states are given below :

(C.O.No.2) [Comprehension]

State		Stock A	Stock B
	Probability	Returns	
1	0.20	-5%	10%
2	0.30	15%	12%
3	0.40	18%	14%
4	0.10	22%	18%

From the above information calculate:

- The Expected Returns of both the Stocks
- The Covariance between the Stocks

Part C [Problem Solving Questions]

Answer both Questions. Each Question carries 15 marks.

(2Qx15M=30M)

11. The performance of three portfolios and Market Index for the year is provided below :

(C.O.No.5) [Application]

Portfolio	Returns %	Risk %	Beta
A	15%	20%	0.9
B	17%	24%	1.1
C	19%	27%	1.2
Market	16%	20%	
Risk Free Return	10%		

You are required to

- Evaluate and rank the portfolio's based on Sharpe, Treynor and Jensen Models
- Comment on the Performance of the Portfolios with regard to Out performance and Under performance with regard to the Market

12. An investor wants to create a 2 Asset Equal Weighted Portfolio from out of the 3 stocks selected below. The details of the returns for the past 3 years for these stocks is as follows:

(C.O.No.3) [Application]

Year	Stock A	Stock B	Stock C
1	16%	14%	12%
2	10%	12%	7%
3	5%	8%	10%

	AB	BC	AC
Covariance	16.33	7.65	6.16

You are required to advise the investor a suitable combination of 2 Stocks for creating the Portfolio. Provide all the calculations and reasoning for your advice.



SCHOOL OF MANAGEMENT

END TERM FINAL EXAMINATION

Extract of question distribution [outcome wise & level wise]

Q.NO	C.O.NO (% age of CO)	Unit/Module Number/Unit /Module Title	Memory recall type	Thought provoking type	Problem Solving type	Total Marks
			[Marks allotted]	[Marks allotted]	[Marks allotted]	
			Bloom's Levels	Bloom's Levels		
			K	C	A	
1	CO1	Module 1	5			5
2	CO1	Module 2	5			5
3	CO3	Module 3	5			5
4	CO5	Module 4	5			5
5	CO4	Module 3	5			5
6	CO5	Module 2	5			5
7	CO2	Module 2		5		5
8.	CO2	Module 2		5		5
9	CO2	Module 3		5		5
10	CO2	Module 1		5		5
11.	CO3	Module 4			15	15
12	CO3	Module 4			15	15
Total Marks			30	20	30	80

K = Knowledge Level C = Comprehension Level, A = Application Level

Note: While setting all types of questions the general guideline is that about 60%

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I hereby certify that all the questions are set as per the above guidelines.

Faculty Signature:

Reviewer Comment:

Format of Answer Scheme



SCHOOL OF MANAGEMENT

SOLUTION

Semester: Odd Sem. 2019-20
Course Code: FIN 201
Course Name: INVESTMENT MANAGEMENT
Program & Sem: MBA & III

Date: 24.12.2019
Time: 3 HRS
Max Marks: 80
Weightage: 40%

Part A

(0Q x 0M = 0Marks)

Q No	Solution	Scheme of Marking	Max. Time required for each Question
1	Bonds, shares, MF, Real estate, bank deposits etc, Risk, return, liquidity, convenience, tax		5
2	CAPM tries to establish a risk return relationship. The returns from a portfolio or security is dependent on its systemic risk as represented by risk free return and beta.		5
3	Balance Sheet, Discounted cash flow and Relative valuation		5
4	Immunization, active, passive, interest rate anticipation, yield spread		5
5	The Dow theory, Bar and Line charts, Point and figure chart Moving average analysis, Relative strength analysis		5
6	Duration, Modified duration impact of interest rates		5

Part B

(0Q x 0M = 0 Marks)

Q No	Solution	Scheme of Marking	Max. Time required for each Question
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7	1	15%	0.09	12%	0.06	0.00528	0.0036		15
	2	12%	0.06	10%	0.04	0.0024	0.0016		
	3	-5%	-0.11	1%	-0.05	0.0055	0.0025		
	4	7%	0.01	4%	-0.02	-0.0002	0.0004		
	5	2%	-0.04	3%	-0.03	0.0012	0.0009		
	Sum	0.31		0.30		0.01418	0.009		
	Mean	0.06		0.06		Variance	0.00225		
					Cov	0.003545			
					Beta	1.58			
8	a) $[80 + (-90)/4] / (0.6 \cdot 890 + 0.4 \cdot 800) = 6.73\%$ b) Rs 866.99.]	15
			PV@7.5%						
	1	80.00	74.42						
	2	80.00	69.23						
	3	80.00	64.39						
	4	880.00	<u>658.95</u>						
			866.99						
9.	$2.36 \times (1 - (1.18^6 / 1.16^6) / (0.16 - 0.18)) + 2.36 \times (1.18)^5 \times (1.12) / (0.16 - 0.12) \times 1 / (1.16^6)$ = Rs. 74.80								15
10.	a) $E(R_1) = 0.2(-5\%) + 0.3(15\%) + 0.4(18\%) + .10(22\%) = 12.9\%$ $E(R_2) = 0.2(10\%) + 0.3(12\%) + 0.4(14\%) + .10(18\%) = 13\%$ (b)								15
	<i>State</i>	<i>Probability</i>	<i>Return asset 1</i>	<i>Deviation of return on asset 1</i>	<i>Return asset 2</i>	<i>Deviation of the return on asset 2</i>	<i>Product of deviation times probability</i>		
	(1)	(2)	(3)	(4)	(5)	(6)	(2)x(4)x(6)		
	1	0.2	-5%	-17.9%	10%	-3%	10.74		
	2	0.3	15%	2.1%	12%	-1%	-0.63 %		
	3	0.4	18%	5.1%	14%	1%	2.04		
	4	0.1	22%	9.1%	18%	5%	4.55		
	Sum =						16.7		

Part C

(0Q x 0M = 0Marks)

Q No	Solution						Scheme of Marking	Max. Time required for each Question
11.	Sharpe	Treynor	Jensen					35
	0.25	3	5.56	3	-0.40%	3		
	0.29	2	6.36	2	0.40%	2		
	0.33	1	15.83	1	1.80%	1		
	0.30		6.00					

12.		AB	BC	AC		
	RETURN	10.83	10.5	10		
	RISK	4.25	2.78	3.06		
	CV	0.39	0.26	0.31		