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P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution Affiliated to VTU, Belgaum)

Fourth Semester, Master of Business Administration (MBA)

Semester End Examination; June - 2016

Portfolio Management

Time: 3 hrs

Max. Marks: 100

Note: Answer any FOUR full questions from PART - A and PART - B is compulsory.

PART - A

- 1 a. Explain the various phases of portfolio management. 10
 b. Explain asset allocation strategies a portfolio manager can adopt. 10

OR

- 2 a. 'An investor has to carefully evaluate risk involved in investment'. Do you agree? What risk is involved and which is most important for evaluation? Briefly explain how and which risk can be minimized if evaluation is done effectively? 10
 b. Evaluate the assumptions of Markowitz model of portfolio management. 10
- 3 a. XYZ Industries returns for last 5 years are given below :

Year	2005	2006	2007	2008	2009
Return	24.85%	5.51%	6.33%	-7.91%	52.10%

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- i) Calculate XYZ Industries' Ex-post [historical] mean return over the 2005 to 2009 period.
 ii) Calculate XYZ Industries' standard deviation risk.
- b. A financial analyst is analyzing two investment alternatives of Z and Y. The estimated rate of return and their chances of occurrence for the next year are given in the table below :

Probability	Rate of Return	
	Y _i	Z _i
0.20	22%	5%
0.60	14%	15%
0.20	-4%	25%

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- i) Find out covariance and correlation co-efficient between Y and Z.
 ii) If the financial analyst wishes to invest half in Z and another half in y, what is the expected return and risk?

OR

- 4 a. An inventor wants to build a portfolio with the following 4 stocks. With the given details, find out his portfolio return and risk. The investment is spread equally over the stocks.

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Company	Alpha	Beta	Residual Variance
L & T	0.17	0.93	45.15
Reliance Industries	2.48	1.37	132.25
Canara Bank	1.47	1.73	196.28
P & G	2.52	1.17	51.98

Market returns is 11% and market returns variance is 26%.

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

Security	Return	Expected Beta	Standard Deviation
A	0.32	1.70	0.50
B	0.20	1.40	0.35
C	0.25	1.10	0.40
D	0.22	0.95	0.24
E	0.20	1.05	0.28
F	0.14	0.70	0.18
XYZ Index	0.12	1.00	0.20
T – Bills	0.08	0.00	0.00

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In terms of a security market line, which of the above listed are undervalued? Why?

5 a. Complete the following table by assuming the return as the market portfolio is 15% and the return on the zero beta portfolio is 10% [Alpha]. Further also assume the market standard deviating is 40% and CAPM with risk free lending but no risk free borrowing.

Security	Expected Return	Standard Deviation	Residual Variance	Beta
A	0.12		0.0525	
B	0.18		0.0925	

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b. Explain the concept of Markowitz Efficient Frontier with the help of a schedule and diagram.

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OR

6 a. Explain Capital Asset Pricing Model of portfolio theory, mentioning the difference between capital market line and security market line.

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b. Explain Passive Portfolio Revision Strategies.

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7 a. Use the following information to answer the questions:

	$E(R_p)$	σ_p	Beta
Mutual fund: ABD	0.20	0.1	0.80
XYZ	0.30	0.18	1.50
PQR Index	0.22	0.12	-
Risk free rate (R_f)	0.05		

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- i) Calculate the Treynor measure for each mutual fund and the market index.
- ii) Calculate the Sharpe measure for each mutual fund and the market index.
- iii) Calculate Jensen’s alpha for each mutual funds.
- iv) Rank the funds and market index using Treynor and Sharpe’s measure. Are they constant in ranking? If so, what does that imply about the funds? If not what does that imply about the fund?

b. Explain with example how Fama Portfolio Decomposition is useful in evaluating portfolio performance.

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OR

8 a. Analyze the contents of an offer document and list various factors which need to be considered before selecting a right fund for your client.

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b. Explain how psychology effects ones investment decisions and also give strategies for overcoming psychological biases.

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PART - B

Case Study (Compulsory)

9. What is the optimum portfolio in choosing among the following securities and assuming the risk-free return is 8% and variance in the market index (σ_M^2) is 12%?

Security	Expected	Beta	Unsystematic risk
A	20	1.0	40
B	18	2.5	35
C	12	1.5	30
D	16	1.0	35
E	14	0.8	25
F	10	1.2	15
G	17	1.6	30
H	15	2.0	35

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