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

(An Autonomous Institution affiliated to VTU, Belagavi)

Fourth Semester, Master of Business Administration (MBA)

Semester End Examination; June - 2017

Portfolio Management

Time: 3 hrs *Max. Marks: 100*

***Note**: Answer all **FOUR** full questions from **PART - A** and **PART - B** (Case study) is compulsory.*

PART - A

1 a. What is meant by mutual fund? What are the advantages of mutual funds? 10

b. Joey did an investment analysis for stock *X*. The results of the analysis are as follows. The market price of risks or Bi and sensitivities for a particular stock are given below. Rf = 5%

Factor	λ	b_i
Interest Rate Risk	0.9	0.9
Purchasing Power Risk	0.9	1.8
Management Risk	1.3	1.6
Market Risk	0.8	-1.75

The probability of getting return of *X* stock is given below : 10

Return in %	Probability in %
15	40
20	30
10	20
8	10

Can an investor purchase stock *X*?

OR

2 a. What is Behavioral Finance? What are strategies for overcoming psychological biases? 10

b. You are given the following information and asked to choose the best portfolio for your client.

Portfolio	Beta	Correlation of the return with the index return
A	13	1
B	-0.07	-0.8
C	1.1	0.7

10

Note:

i) The client wants a portfolio without unsystematic risk

ii) He wants you to suggest the highest yielding return portfolio in the normal market condition based on CAPM. He needs an explanation for it.

3 a. Explain the Sharpe's performance index, Treynor's performance index and Jensen's performance index. 10

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b. Mr. *X* is considering purchasing 2 securities A and B along with the probability. The information is given below.

Situation	Probability	Returns	
		A	B
1	0.1	5	0
2	0.3	10	8
3	0.5	15	18
4	0.1	20	26

10

i) What is expected return on portfolio made up of 40% of A, 60% of B?

ii) What is S D of each stock?

iii) Determine correlation coefficient of stock A and B

iv) What is expected risk on portfolio made up of 40% of A, 60% of B?

OR

4 a. What are Portfolio management strategies? What are the approaches to portfolio management strategy? 10

b. The following assets are assumed to be correctly priced on the SML. What is the return of market portfolio? What is the risk free rate of return? Ri = 9.4, Rs = 13.4, $b_i = 0.8$, $b_s = 1.30$. 10

5 a. What is Portfolio Management? Explain the process of Portfolio Management. 10

b. Stocks X and Y displayed the following return for past years :

Year	Returns	
	X	Y
2005	12	14
2006	18	12

10

i) What is expected return on portfolio of 30% of X, 70% of Y?

ii) What is S D of each stock?

iii) Determine correlation coefficient of Stock X and Y

iv) What is expected risk on portfolio made up of 30% of X, 70% of Y?

OR

6 a. Define risk. What are different types of risk? 10

b. The rate of return on stock A and market portfolio for 15 years are given below :

i) Calculate beta of stock ii) What is the characteristics line of stock A?

Year	Return on stock A	Market Portfolio
1	10	12
2	15	14
3	18	13
4	14	10

10

Contd…3

5	16	9
6	16	13
7	18	14
8	4	7
9	-9	1
10	14	12
11	15	-11
12	14	16
13	6	8
14	7	7
15	-8	10

7 a. What is CAPM? What are the assumptions of CAPM and APT model? 10

b. The following information is available regarding three mutual funds and market : 10

Particulars	Rp	S D	Beta
Birla advantage	25.38	4	0.23
ICICI growth	36.28	6.86	0.52
Sundaram growth	45.56	4.31	0.63
S and P CN Nifty	36.74	3.69	1

Rf is assumed to be 9% rank the above fund using Sp, Tp and Jp.

OR

8 a. Differentiate SML and CML. 10

b. Write different forms of Efficiencies. 10

PART - B (Compulsory)

9. **Case Study:**

A stock of Alfa Ltd. performs relatively well to other stocks during the recessional period. The stock of Beta Ltd. on the other hand does well during the growth period, both the stocks are currently selling for rupees 50 per share. The return of this stock for the next year would be as follows :

Particulars	Economic condition			
	High growth	Low growth	Stagnant	Recession
Probability	0.3	0.3	0.2	0.2
Return of Alfa Ltd.	55	50	60	70
Return of Beta Ltd.	75	65	50	40

Calculate expected return and standard deviation of investing,

a. Rupees 1000 equity in Alfa Ltd. 8

b. Rupees 1000 equity in Beta Ltd. 6

c. Rupees 700 equity stock of Alfa and Rupees 300 equity stock Beta Ltd. 6

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