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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; July / Aug. - 2022

Portfolio Management

Time: 3 hrs *Max. Marks: 100*

Course Outcomes

The Students will be able to:

CO1 – The Students will understand the concept of Portfolio Management.
CO2 – The Students will demonstrate their conceptual knowledge on various portfolio theories.
CO3 – The Students will learn to construct the portfolio and to revise the same.
CO4 – The Students will demonstrate their knowledge on portfolio performance evaluation.
CO5 – The Students will gain the conceptual knowledge on Mutual funds and Behavioural Finance.

***Note**: I) Answer all **FOUR** full questions from **PART - A** and **PART - B** (Case Study) is compulsory.*
II) Scientific calculators are allowed.

Q. No.	Questions	Marks	BLs	COs	POs
	PART - A				
1 a.	Discuss the different phases in portfolio management.	10	L2	CO1	1,2,4
b.	Ramesh wants to purchase the stock of X and Y with the following information. Find out the expected return, variance and SD. Which is preferable?	10	L3	CO1	1,2,4

Return in %		Probability
X	Y	
5	6	0.05
8	8	0.15
–4	10	0.35
14	12	0.45

OR

2 a.	Explain the objectives and importance of portfolio management.	10	L2	CO1	1,2,4
b.	Kavitha wants to purchase the stock of X and Y with the following information. Calculate the expected return, variance and SD. Which is preferable?	10	L3	CO1	1,2,4

Probability	Returns (%)		
	Stock X	Stock Y	Stock Z
0.3	9	4	6
0.5	15	12	10
0.2	18	15	14

Calculate the expected return and risk of individual securities.

3 a.	State the assumptions of CAPM. Illustrate the difference between Capital Market Line and security Market Line with suitable examples.	10	L2	CO2	1,2,4
b.	Stocks L and M have yielded the following returns for the past two years.	10	L3	CO2	1,2,4

Contd…2

Year	Return L (%)	Return M (%)
2015	12	14
2016	18	12

Calculate the following:

i) Expected return on portfolio made up of 60% of L and 40% of M.

ii) Standard deviation of each stock.

iii) Covariance and coefficient of correlation between stock L and M.

iv) Portfolio rick of a portfolio made of 60% of L and 40% of M.

OR

4 a. Discuss Markowitz model of portfolio diversification with assumptions with suitable graphs and illustrations. 10 L2 CO2 1,2,4

b. Arul got the following information regarding his favorite stocks. He wants to invest in all the four stocks equally. 10 L3 CO2 1,2,4

Stocks	σ	β	σ_{ei}^2
1	1.27	1.5	50
2	1.02	1.05	40
3	2.48	1.37	20
4	0.47	0.86	35

The market variance is 25. The markets expected return is 20%.

i) What would be Arul's portfolio return and risk?

ii) Can you advise him regarding the amount to be allocated on each security so as to enhance his earnings?

5 a. Discuss constant ratio plan and constant rupee plan for portfolio revision with suitable examples. 10 L2 CO3 1,2,4

b. Rank the three funds given below with the help of Treynor and Sharpe index. 10 L3 CO4 1,2,4,5

Growth Fund	Return %	Beta	Alpha
X	15	1.5	12
Y	17	1.6	14
Z	13	0.75	11
Risk free return	9		

Is there any difference in the ranking according to these measures? If so why?

OR

6 a. Discuss Portfolio Management Strategies. 10 L2 CO3 1,2,4

Contd…3

b. Consider the following information for three mutual funds, X, Y, and Z, and the market

	Market return	Standard deviation in %	Beta
X	24	22	1.8
Y	16	14	1.2
Z	12	13	0.8
Market Index	10	10	1

10 L3 CO4 1,2,4,5

The mean risk free rate was 7%. Calculate TREYNOR measure, SHARPE measure and JENSEN measure.

OR

7 a. Discuss the working of a mutual fund and its organization structure. 10 L2 CO5 1,2,4,5

b. Discuss the following heuristic-driven biases and cognitive errors: Representativeness, overconfidence, Anchoring, A version to ambiguity, Innumeracy. 10 L3 CO5 1,2,4,5

OR

8 a. Explain any five indicators used for assessing/evaluating mutual funds. 10 L2 CO5 1,2,4,5

b. Discuss the risks and benefits associated with portfolio investment. 10 L3 CO5 1,2,4,5

PART - B (Case Study) Compulsory

9. Case Study

A portfolio manager has got the following information about several stocks. He has to build a optimum portfolio for his client without short sales.

Security	Expected Return	β	α_{ei}^2
A	22	1	35
B	20	2.5	30
C	14	1.5	25
D	18	1.0	80
E	16	0.8	20
F	12	1.2	10
G	19	1.6	25
H	17	2.0	30

The market index variance is 12percent and the risk free rate of return is 7 percent.

a. Determine the expected return of individual securities. 5

b. Estimate the cut off rate as per the Sharpe's single index model and ascertain the weights for each individual security forming the optimum portfolio. 10 L4 CO3 1,2,4

c. Estimate the portfolio return. 5

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