U.S.N

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; May/June - 2019
Portfolio Management

Time: 3 hrs *Max. Marks: 100*

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

ii) Scientific calculators shall be allowed.

PART - A

1 a.	Portfolio management is a continuous process. Do you agree? Justify.	10
b.	Explain the Asset Mix selection strategies.	10

OR

2 a.	With the help of diagram, explain Systematic and Unsystematic risk involved in portfolio investments.	10
b.	Stock *Y* and *Z* have the following parameters :	10

Expected return $\rightarrow$ $\frac{Y}{20}$ $\frac{Z}{30}$

Expected variance $\rightarrow$ 16   25

Covariance YZ = 20

Is there any advantage of holding a combination of *Y* and *Z*?

3 a. A financial analyst is analyzing two investment alternatives, stock *Z* and stock *Y*. The estimated rate of return and their chances of occurrence for the next year are given below :

Probability	Rate of Return	
	Y	Z
0.2	22	5
0.6	14	15
0.2	- 4	25

       10

i) Determine expected rate of return, variance and standard deviation of Y and Z.

ii) Is 'Y' comparatively riskless?

iii) If the financial analyst wishes to invest half in Z and another half in Y, would it reduce the risk? Explain.

b. The following table provides information regarding the portfolio return and risk :

Portfolio	Expected Return	Standard deviation
1	10	4
2	12	7
3	13	5
4	16	12
5	20	14

       10

i) The T-Bill rate is 5%, which portfolio is the best one?

ii) Would it be possible to earn 12% return with standard derivation of 4%?

iii) If standard deviation is 12%, what would be the expected return?

OR

4 a. An investor wants to build a portfolio with the following four stocks. With the given details, find out his portfolio return and portfolio variance? The investment is spread equally over the stocks.

Company	α_i	B_i	e_i^2
Sneha	0.17	0.93	45.15
Neha	2.48	1.37	132.25
Asha	1.47	1.73	196.28
Priya	2.52	1.17	51.98

10

Market Return = 11, Market return variance = 26.

b. Explain the assumptions of CAPM.

10

5 a. Assume yourself as a portfolio manager and with the help of following details find out the securities that are overpriced and underpriced in terms of the security market line.

Securities	E(R)	B_i	σ_i
A	0.33	1.7	0.50
B	0.13	1.4	0.35
C	0.26	1.1	0.40
D	0.12	0.95	0.24
E	0.21	1.05	0.28
F	0.15	0.70	0.18
Nifty	0.13	1.00	0.20
T-Bills	0.09	-	-

10

b. The evergreen investment company manages a stock fund consisting of four stocks with the following market value and betas :

Stock	Market Value	Beta
Bell	2,00,000	1.16
Sell	1,00,000	1.20
Grill	1,50,000	0.80
Shrill	50,000	0.50

10

If the risk free rate of interest is 9% and market return is 15%, what is the expected return of portfolio?

OR

6. Assume CAPM equilibrium model with unlimited borrowing and lending at Risk free rate of interest. Complete the blanks in the following table :

Security	E(R)	σ	β_i	e_i^2
A	0.15		2.00	0.10
B		0.25	0.75	0.04
C	0.09		0.50	0.17

20

7 a. The portfolio has to be evaluated and revised to earn a reasonable return. Do you agree? Justify the need for it.   10

  b. What are formula plans? Explain different formula plans.   10

OR

8 a. From the following details, evaluate funds A and B using Sharpe's index and Treynor's performance index :

Funds	Average Annual returns	R_F	σ	β_i
A	0.0879	0.05	0.0829	0.4990
B	0.1347	0.05	0.1982	1.2493

10

  b. Mr. Shetty is considering an investment in the stock of *X* corporation. Shetty expects to earn a return of 17% in the next year from this stock. X's beta is 1.3, risk free rate is 7% and return on market is 15%.

  i) Should Mr. Shetty invest in the X corporation?

  ii) What should he do, if beta is 1.1?

  (Assume that other values have not changed)

10

PART - B (Case study - Compulsory)

9. Mr. Vinod received Rs. 10 lakh from his pension fund. He wants to invest in the stock market. The T-Bill rate is 7% and the market return variance is 20. The following table gives the details regarding the expected return, beta and residual variance of the individual security. What is the optimum portfolio assuming?

  a) Short sales

  b) No short sales

20

Stocks	R_i	Beta	σ_{ei}^2
A	20	0.75	25
B	18	1.30	16
C	16	1.30	9
D	12	0.75	16
E	10	0.60	9
F	15	1.80	36

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