



PG-734

IV Semester M.Com. Examination, June 2015  
COMMERCE  
F.5 : Portfolio Management

Time : 3 Hours

Max. Marks : 80

SECTION – A

1. Answer **any ten** of the following sub-questions in about 4 to 6 lines.

Each sub-question carries two marks.

(10×2=20)

- a) What is diversifiable risk ?
- b) What is meant by corner portfolios ?
- c) What is correlation coefficient (r) ?
- d) What are the advantages of including risk free securities (assets) in a portfolio ?
- e) What is Sharpe's optimum portfolio ?
- f) What is arbitrage pricing theory ?
- g) What are the differences between open ended and close ended mutual fund schemes ?
- h) What is meant by passive management of port folios ?
- i) What is meant by "At-the-money" in a call option ?
- j) What are the advantages and disadvantages of including stocks with high beta in a portfolio ?
- k) What is short selling of securities ?
- l) What is utility analysis ?

P.T.O.



## SECTION - B

Answer **any three** of the following questions in about a **page each** (in case of theory questions). **Each** question carries 5 marks. (3×5=15)

2. Explain investment process.
3. Stocks are considered to be risky, but bonds are not, discuss.
4. What are the assumptions of CAPM ?
5. Stocks A and B have the following parameters.

	Stocks %	
	A	B
Expected return	20	30
Expected variance	16	25
Co-variance A B	- 20	

Is there any advantage of holding a combination of A and B ?

6. ABC Ltd. and XYZ Ltd. have the following risk and return status.

Stock	A	B
a) Returns %	15	17
b) Standard deviation	30	25

Determine the minimum risk portfolio.

## SECTION - C

Answer **any three** questions in about **three pages** (in case of theory questions). **Each** question carries 15 marks. (3×15=45)

7. Explain the various forms of derivatives and their utility.
8. Explain the nature of portfolio risk if securities are a) perfectly positively co-related b) Perfectly negatively co-related and zero co-relation.
9. Explain the Sharpe and Treynor indices model. How do they differ from Markowitz model ?



10. A financial analyst is analyzing two investments alternatives of Y and Z. The estimated rates of return and their chances of occurrences for the next year are given below.

Probability of occurrence	Rates of return %	
	Y	Z
0.20	22	5
0.60	14	15
0.20	-4	25

- a) Determine the expected returns and variances of securities.
- b) Determine the portfolios risk.

11. An investor wants to build a portfolio with the following stocks. Find out the portfolios return and variance.

Company	$\alpha$	$\beta$	Residual Variance
A Ltd.	0.17	0.93	45.15
B Ltd.	2.48	1.37	132.25
C Ltd.	1.47	1.73	196.28
D Ltd.	2.52	1.17	51.98

Market return ( $R_m$ ) – 11%

Market return variance –  $\sigma^2_m$  – 26%.

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III Semester M.Com. Examination, December 2015  
(CBCS)  
COMMERCE  
Portfolio Management FB 3.5

Time : 3 Hours

Max. Marks : 70

**Instruction :** Answer all Sections.

SECTION – A

Answer any seven sub-questions. Each sub-question carries two marks. (7×2=14)

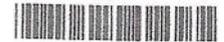
1. a) What is superfluous diversification ?
- b) Distinguish between Open ended Vs. Closed ended funds.
- c) What is optimal portfolio ?
- d) What do you mean by diversion of risk ?
- e) Define portfolio revision.
- f) Write any two assumptions of Markowitz model.
- g) What is Arbitrage Pricing Theory (APT) ?
- h) What do you mean by passive portfolio strategy ?
- i) What is meant by indexing strategy ?
- j) What is Efficient Market Theory ?

SECTION – B

Answer any four questions. Each question carries five marks. (4×5=20)

2. Briefly explain the objectives of "Portfolio Management".
3. What are the major characteristic differences between Capital Asset Pricing Model (CAPM) and Behavioural Asset Pricing Model (BAPM) ?
4. Define Credit Derivatives. Explain the types of Credit Derivatives.

P.T.O.



5. Two securities A and B have the following return, risk and correlation  $R_A = 22$ ,  $R_B = 20$ ,  $\sigma_A = 10$ ,  $\sigma_B = 12$  and  $\rho_{AB} = 0.5$ .

Determine the minimum risk portfolio for A and B.

6. The following three portfolios provide the particulars given below :

Portfolio	Average Annual Return	$\sigma$	Correlation Coefficient
X	18	27	0.8
Y	14	18	0.6
Z	15	8	0.9
Market	13	12	

If the risk free rate of interest is 9. Rank these portfolios using

- Treynor's method
  - Sharpe method and interpret the results.
7. Mr. Varsity has the following portfolio of four shares :

Name	Beta	Investment (Rs. in Lakhs)
Oxy Rin Ltd.	0.45	0.80
Boxed Ltd.	0.35	1.50
Squared Ltd.	1.15	2.25
Ellipse Ltd.	1.85	4.50

The risk free rate of return is 7% and the market rate of return is 14%.

**Required :**

- Calculate the portfolio Beta.
- Determine the portfolio return.

### SECTION - C

Answer any three questions. Each question carries twelve marks.

(3×12=36)

8. Many people advocate mutual funds for small investors. They suggest that the best strategy for small investors is to invest in good mutual fund. Explain your views.
9. Consider the following information on two stocks X and Y.

Year	Return on X (%)	Return on Y (%)
2013	12	10
2014	18	16



You are required to determine :

- i) The expected return on a portfolio containing X and Y in the proportion of 60% and 40% respectively.
- ii) The standard deviation of return from each of the two stocks.
- iii) The covariance of return from each of the two stocks.
- iv) Correlation co-efficient between the returns of the two stocks.
- v) The risk of portfolio containing X and Y in the proportion of 60% and 40%.

10. Mrs. Vinutha owns three securities and has estimated the following joint probability distribution of returns.

Outcome	Security X	Security Y	Security Z	Probability
1	15	-12	0	0.15
2	12	-2	10	0.20
3	5	0	12	0.30
4	-3	4	15	0.20
5	-8	10	7	0.15

Calculate the portfolio's expected return and standard deviation if Mrs. Vinutha invests 40% in security X, 25% in security Y and 35% in security Z. Assume that each security's return is completely uncorrelated with the returns of the other securities.

11. Suresh wants to invest in stock market. He has got the following information about individual securities :

Security	Expected Return	Beta	$\sigma^2_{ei}$
A	15	1.5	40
B	12	2	20
C	10	2.5	30
D	09	1	10
E	08	1.2	20
F	14	1.5	30

Market index variance is 10 percent and the risk free rate of return is 7%. What should be the optimum portfolio assuming no short sales ?

12. Write short notes on :

- a) Investor Life Cycle
  - b) Random Walk Theory
  - c) Efficient Frontier
  - d) International Portfolio Management.
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