



M.Com. (Semester – II) Examination, April 2015
COC 204 : SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT (OA-18)

Duration : 3 Hours

Max. Marks : 60

- Instructions :** 1) This paper consists of **nine** questions carrying **equal** marks.
2) Question No. 1 consists of **5 compulsory** questions of **2 marks each**.
3) Answer **any 5** questions from question 2, 3, 4, 5, 6, 7, 8 and 9.
4) **Each** question carries **10** marks. Figures to the **right** indicate **marks**.
5) Present value tables will be provided on **request**.

1. Answer the following in brief : (5×2=10)

- What is Beta ? Explain its significance in security analysis.
- What is convexity in bond analysis ?
- What is Random Walk Theory ?
- Calculate the expected returns of a security whose return standard deviation is 3% and coefficient of correlation with market is 0.8. Assume return from market portfolio to be 9.8% with standard deviation of 2.2% and risk free rate is 5.2%.
- For the following data compute expected returns of a stock as per Arbitrage Pricing Theory. Assume risk free rate to be 5%.

Factor	Price of Risk	Sensitivity
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

- Explain the different types of risks affecting investment in securities. 10
- 'Technical analysis is useful for predicting individual share prices as well as the direction of the market as a whole'. Explain. 10
- Explain Capital Asset Pricing Model. 10

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5. Following data relates to two stocks P and Q.

State of Economy	Returns		
	Probability	P	Q
Boom	0.1	15	20
Recession	0.2	- 8	12
Normal	0.4	14	- 9
Recovery	0.1	10	15
Slow growth	0.2	15	20

- Determine the expected returns for both the stocks as also measures of risk.
 - Compute the covariance of returns from above data.
 - Determine the minimum risk portfolio with combination of above stocks.
What will be the portfolio risk and return of minimum risk portfolio ? 10
6. Compute Macaulay's Duration for bond X and bond Y with 10% and 8% coupons respectively and having maturity of 5 years. The face value of each of the bond is Rs. 1,000. Bond X currently yield 8% while bond Y currently yield 9%. Which bond should be preferred by an investor ? 10
7. The return of XYZ Ltd. at present is 22%. This is assumed to continue for the next 5 years and after that it is assumed to have a growth rate of 10% indefinitely. The dividend paid for the current year is 20%. The required rate of return is 15% and the present price of stock is Rs. 50. Determine the estimated price of stock according to two-stage model of equity valuation. 10
8. Given below is information of market rate of returns and data from two stocks viz. Companies A and B.

	2011	2012	2013
Market	12	11	9
Company A	13	11.5	9.8
Company B	11	10.5	9.5

- Determine the beta coefficients of the shares of companies A and B.
- Which stock would you recommend to a passive investor and why ?
- What would be the returns on individual stocks assuming market returns to be 15% and risk free rate to be 6%. 10



9. Ajit, Amit and Ankit are three regular investors in capital market instruments. Recently they collected the following information about three funds.

Fund	Average Annual Return	Std. Deviation	Correlation coefficient with Market
X	15	25	0.7
Y	18	15	0.3
Z	12	10	0.6

Ajit has further calculated the average market return to be 13% for the same period with standard deviation of 12%. The risk free rate of interest is 8%.

The three investors wish to evaluate the performance of funds X, Y and Z based on their own preferences. Ajit prefers to analyse funds with reference to the total risk involved in a fund; Amit prefers to measure funds' performance in relation to market performance while Ankit would like to invest in a fund that exhibits superior predictive ability of fund manager.

What would be the ranking of each of the above funds according to individual preferences of fund evaluation of each of the three investors ?

10

Factor	Price of Risk	Sensitivity
Interest rate risk	0.9	0.3
Purchasing power risk	0.9	1.8
Management risk	1.3	1.6
Market risk	0.8	-1.75

2. Explain the different types of risks affecting investment in securities.

10

3. 'Technical analysis is useful for predicting individual share prices as well as the direction of the market as a whole'. Explain.

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4. Explain Capital Asset Pricing Model.

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