



SRN – 04

M.Com. (Semester – II) Examination, April 2018
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 five** 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 and Logarithm tables will be supplied on request.
 - 6) The values given in brackets are **negative** values.

1. Answer the following in brief :

(5×2=10)

- a) How does systematic risk affect the individual stock returns ?
- b) How do you measure the duration of Bond ?
- c) Define Relative Strength Index (RSI).
- d) Define Formula Plans.
- e) The risk-free rate of return is 10% and the market return is 15%. Stock A has a beta of 1.2 and is currently selling for Rs. 30. If the expected dividend on the stock is Rs. 4, compute the growth rate of the Stock.

2. A) What are the various forms of investment alternatives ? Discuss a detailed account of any two Investment alternatives. 5
- B) Explain the importance of the estimation of Beta and Co-efficient Correlation of stocks. 5
3. A) How does a Technical Analysis differ from a Fundamental Analysis ? 5
- B) Define Diversification of Portfolio under Single Index Model. 5
4. A) Define Efficient Frontier. Distinguish between Efficient Portfolio and Feasible Portfolio. 5
- B) Distinguish between Capital Asset Pricing Model and Arbitrage Pricing Theory (APT). 5

P.T.O.



5. A) S. Ltd., currently pays dividend Rs. 3 per share which is expected to grow at an annual rate of 14% for 3 years and 11% p.a for next 3 years after which it will grow at 4% p.a. forever. If the rate of return required by the equity investor is 16%, compute the price for the stock. 5

B) A Bond of face value of Rs. 1,000 is currently quoting in the market at Rs. 1062. The coupon rate of the bond is 14% payable semiannually. The remaining maturity of the bond is 5 years and the principal is repayable at two equal installments at the end of 4th and 5th year from now. The yield to maturity (YTM) of the bond is 12.16%. If the YTM for similar type of bonds increases by 2%, what would be the new price of the bond ? 5

6. A) The shares of Shri Ltd., are expected to provide the following returns in different scenarios.

Scenario	Probability	Expected Return (%)
Recession	0.30	(10)
Low Growth	0.40	5
High Growth	0.30	20

You are required to compute the Standard Deviation of Stock. 5

B) Following information is provided concerning the returns on the shares of "R" Ltd., and on the Market Portfolio, according to the various conditions of the economy. 5

Conditions of Economy	Probability	Return on R Ltd., (%)	Return on Market (%)
1	0.20	10	5
2	0.40	15	16
3	0.40	20	18

The current Risk Free Return is 9%. Compute Beta factor for R Ltd.



7. A) Consider the following data pertaining to stocks of 3 companies.

Scenario	Probability	Returns from stock (%)		
		X	Y	Z
Optimistic	0.20	50	40	20
Most Likely	0.70	35	28	15
Pessimistic	0.10	20	22	(15)

You are required to determine whether investing in combination of all 3 stocks in equal proportions is better than in any one stock.

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B) Consider the following information relating to two stocks, A and B.

Particulars	Stock A	Stock B
Expected Return (%)	15	20
Expected Variance (%)	9	16
Co-variance	8	

You are required to determine whether investor will gain due to diversification if he invests partly in "A" and partly in B.

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8. The market is expecting a return of 17.5% and the Standard Deviation of returns of the market is 22.5%, Risk Free Return is 7.5%. Assuming Capital Asset Pricing Model holds good, you are required to :

- i) Determine the Expected Return on an individual security with a Standard Deviation of 50% and Beta of 1.73.
- ii) Determine the Expected Return and Beta of an efficient portfolio with a Standard Deviation equal to Market Standard Deviation.
- iii) Calculate the Expected Return and Beta of an efficient portfolio with a Standard Deviation equal to twice the Standard Deviation of market.

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9. A) Consider the following Mutual Funds.

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Funds	Alpha	Beta	Residual Variance
A	3.72	0.99	9.35
B	0.60	1.27	5.92
C	0.41	0.96	9.79
D	(0.22)	1.21	5.36
E	0.45	0.75	4.52

- i) The market has given a return of 13.5% with a variance of 25%.
 ii) The 364-day T-bill rate is 7%.

You are required to calculate the Sharpe's measure of performance evaluation on Mutual funds and rank them.

B) Consider the following information :

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Factor	λ	β
Interest Rate Risk	0.90	0.90
Purchasing Power Risk	0.90	1.80
Management Risk	1.30	1.60
Market Risk	0.80	(1.75)

The analysis for Stock 'X' with a Risk Free Return is 5% and the probability of getting return on stock is given below :

Probability	0.40	0.30	0.20	0.10
Return on X (%)	15	20	10	8

Advise to purchase stock X or not.