

M.com. (Semester –II) Examination, April 2019

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 consist of 5 compulsory questions of 2 marks each.

3) Answer any five questions from Questions No. 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:

(5x2=10)

A) Define Relative strength index.

B) Distinguish between constant rupee value plan and constant ratio plan.

C) What are the assumptions of Markowitz model?

D) Explain in brief the Dow Theory.

E) The company XYZ's next year dividend per share is expected to be ₹ 4.50. The dividend in subsequent years is expected to grow at a rate of 12% per year. If the required rate of return is 21% per year, what should be its price?

2. What are the steps involved in the traditional approach to portfolio construction?

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3. Explain the importance of economic analysis and state the economic factors considered for this analysis.

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4. What are the advantages of Arbitrage Pricing Theory over CAPM? Explain in detail.

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5.

A) QP Ltd. for the first 5 years is assumed to grow at a rate of 10% p.a. After 4 years, the dividends are expected to grow at a constant growth rate of 8%. The next year dividend is ₹4 and required rate of return is 16%. Find out the value of stock.

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B) A five year bond with a 5% coupon rate and maturity value of ₹ 1000 is currently selling at ₹960.

i) What is its yield to maturity?

ii) Can investor buy it?

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6.

A) Mr Sam is considering investing in following securities. Based on the following details, determine the securities that are overpriced and those that are underpriced in terms of the SML.

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Security	Actual return	Beta (β)
G	9	1.4
H	13	1.2
I	11	0.7
J	21	1.8
Market	10	1.0
Risk Free Rate	7	0

B) Mr. Shyam is having units in a mutual fund for the past four years. He wants to evaluate its performance by comparing it to the market.

	Fund	Market
Return	25	12
Standard deviation (σ)	14	6
Risk free rate	5	5
Beta (β)	1.2	-

You are required to find out the Sharpe and Treynor Indices. Comment.

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7.

A) Stocks A and B present the following expected risk and return for the coming year.

Stock	Expected Return (%)	Standard Deviation (%)
A	14	4
B	16	5

The portfolio risk (standard deviation) for a portfolio of 50% investment in each asset is 4%.

i) Determine the correlation coefficient that will be necessary to reduce the level of portfolio risk by 75%?

ii) What is the expected return of the equally weighted portfolio?

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B) Assume the CAPM with risk free lending but no risk free borrowing. The return on the market portfolio is 12%, and the risk free rate of return is 7%. The market standard deviation is 25%.

Stock	Expected Return (%)	Standard Deviation	Beta	Residual Variance
L	16	-	-	4.75
M	18	-	-	8.55

You are required to calculate standard deviation and beta of Stock L and M.

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8. Consider the following information relating to alpha, beta and residual variance of two stocks.

Stock	Alpha (%)	Beta	Residual Variance (%)
Blue	7	1.2	20
Green	5	0.9	12

The market has an expected return and variance of 18% and 22% respectively.

You are required to:

- Calculate the risk and return for Stock Blue and Stock Green.
- If investor invests equally in both stocks, what will be his risk and return?

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9. Given below is some key information pertaining to five mutual funds:

Funds	Excess Average Return	Beta
A	4.5	1.04
B	5.8	0.80
C	10.5	1.20
D	8.5	1.06
E	6.5	0.60
Market	4	1.00

Based on the above information, you are required to:

- Calculate the Jensen Index for each fund.
- Rank the funds according to the predictive ability of the fund manager.

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