

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 600 086.
(For candidates admitted during the academic year 2011-12 & thereafter)

SUBJECT CODE: 11CM/MC/PF64

B.Com. DEGREE EXAMINATION APRIL 2015
COMMERCE
SIXTH SEMESTER

COURSE : MAJOR – CORE
PAPER : PORTFOLIO MANAGEMENT
TIME : 3 HOURS

MAX. MARKS: 100

SECTION – A

ANSWER ALL THE QUESTIONS:

(10 x 3 = 30 Marks)

1. What is a corner portfolio?
2. What is SWOT analysis?
3. What are the factors that should be considered by a portfolio manager in an efficient market?
4. Write a note on Dow Theory.
5. List the factors that an investor should consider before making an investment.
6. A firm pays a dividend of 25% on the equity shares of face value of Rs.1000 each. Find out the value of the equity share given that the dividend rate is expected to remain the same and the required rate of the investor is 18%.
7. ABC Ltd. has EPS of Rs. 100 (constant) and equity capitalization rate of 10%. Using Walter's model, find out the value of the share if the rate of return is 15% and the dividend payout ratio is 60%.
8. The market is giving an average return of 18%.The risk-free return is 10%.Find the required Beta factor that would be necessary for an investment to yield a return of 21.6%?
9. A finance company advertises that it will pay a lumpsum of Rs, 45,000 at the end of five years to investors who deposit annually Rs. 5,000 for 5 years. What is the interest rate implicit in this offer?
10. The beta coefficient of C Ltd is 1.2 the company has been maintaining 5% rate of growth in dividend and earnings. The last dividend paid was Rs.2.40 per share .Return on government securities is 10%. Return on market portfolio is 14%. The current market price of one share of C Ltd is Rs.28. The earnings per share is Rs. 3.90. Calculate the cost of equity capital basing on Earning price model.

SECTION - B

ANSWER ANY FIVE QUESTIONS:

(5 x 8 = 40 Marks)

11. Explain the Capital Asset Pricing Model in detail.
12. What do you mean by risk? Distinguish between systematic and unsystematic risk.
13. Explain the concept of economic analysis for investment decisions.

14. A. A bond of Rs. 100 having a coupon rate of 15% is redeemable at par in 10 years. Find out the value of bond if the required rate of return is 15% and redeemable at Rs. 110 after 10 years.

B. The returns on securities Alpha and Beta are given below

Probability	Alpha	Beta
0.5	5%	0%
0.3	3%	3%
.2	0%	4%

Give the security of your preference. The security has to be selected on the basis of return $E(r)$ and risk (σ) .

15. A Ltd has an expected return of 22% and standard deviation of 40% B Ltd has an expected return of 24% and standard deviation of 38%. A Ltd has a beta of 0.86 and B Ltd has a beta of 1.24. The correlation coefficient between the return of A Ltd and B Ltd is 0.72. The standard deviation of the market return is 50%. Suggest

- Is investing in B Ltd better than investing in A Ltd.
- If you invest 30% in B Ltd and 70% in A Ltd, what is your expected rate of return and portfolio standard deviation.
- What is the market portfolio expected rate of return and how is the risk-free return?
- What is the beta portfolio if A Ltd's weight is 70% and B Ltd's weight is 30%?

16. The following data is available in respect of an infra structure bond. The Face value of the bond is Rs.1,000. The Coupon rate is 14% p.a. The years to maturity is 6, the redemption is at par and the current market price as Rs.965.50. Compute Yield to Maturity.

17. a) A firm borrows 10,00,000 at an interest of 14% and the loan is to be repaid in 5 equal installments payable at the end of each of the next 5 years. Prepare a loan amortization schedule.

b) A portfolio consists of three securities 1,2 and 3.

The proportions of these securities are $w_1 = 0.5$, $w_2 = 0.3$ and $w_3 = 0.2$.

The standard deviations of the returns are $\sigma_1 = 6$, $\sigma_2 = 8$ and $\sigma_3 = 9$.

The co-efficient of correlations are $r_{12} = 0.5$, $r_{13} = 0.6$ and $r_{23} = 0.75$.

What is the variance of the portfolio return?

SECTION – C

(1 x 30 = 30 Marks)

18. You have recently graduated as a major in finance and have been hired as a financial planner by Raymond Fincorp, a financial services company. Your boss has assigned you the task of investing Rs. 5,000,000 for a client who has a 3 year investment horizon. You have been asked to consider only the following investment alternatives. T-bills, Stock A, Stock B and Stock C and market index.

The company has developed the probability distribution for the state of the economy and the equity researchers of Raymond Fincorp have estimated the rates of return under each state of the economy. You have gathered the following information from them.

State of economy	Probability	T Bills	Stock A	Stock B	Stock C	Market portfolio
Recession	0.2	6%	(14%)	30	(8)	(10)
Normal	0.5	6%	20	5	15	15
Boom	0.3	6%	40	(18)	26	30

Your client is very curious investor who has heard a lot relating to portfolio theory and asset pricing theory. He requests you to answer the following questions

Calculate the expected returns of security and standard deviation of return for stocks A, B and C and the market portfolio.

- What is the covariance between the returns on A and B; Returns on A and C?
- What is the co-efficient correlation between the returns on A and B , returns on A and C?
- What is the expected return and standard deviation on a portfolio in which stocks A and B are equally weighted? In which the weights assigned to stocks A , B and C are 0.4, 0.4 and 0.2 respectively.
- The beta coefficients for the various alternatives based on historical analysis are as follows. What is the SML relationship?

Security	Beta
T-bills	0.00
A	1.2
B	(0.7)
C	0.9

- Suppose the following historical returns have been earned for the stock market and the stock of company D, what is the beta for stock D ? How would you interpret it?

Period	Market	D
1	(5%)	(12%)
2	4	6
3	8	12
4	15	20
5	9	6

- What is Capital Market Line and Security market Line? How is CML related to SML?
