STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 600 086.
(For candidates admitted during the academic year 2019– 2020 and thereafter)

SUBJECT CODE:19AF/MC/SP54

B.COM (A&F). DEGREE EXAMINATION NOVEMBER 2022
ACCOUNTING AND FINANCE
FIFTH SEMESTER

COURSE	**:**	**MAJOR – CORE**
PAPER	**:**	**SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT**
TIME	**:**	**3 HOURS** **MAX. MARKS: 100**

SECTION – A

ANSWER ALL QUESTIONS: (10 x 2 = 20)

1. Define Portfolio Management.
2. Differentiate between systematic and unsystematic risk.
3. Who are risk-averse investors?
4. What is purchasing power risk?
5. What is meant by 'Top Down Approach?'
6. A firm pays a dividend of 20% on equity shares of the face value of Rs.100 each. Find out the value of equity share given that the dividend will remain the same and the required rate of return is 15%
7. Mr. Singh owns a diversified portfolio of securities, which he estimates to have a standard deviation of 0.37. The return on short-term T-bills is 0.09 and Mr.Singh estimates the expected market return to be 0.14 and the market standard deviation to be 0.28. What is the expected return on the portfolio according to CML?
8. A share is available at a price of Rs.102. After one year, the company is expected to declare a dividend of Rs.14 per share. The expected selling price of the share is Rs.105. Find out the holding period return from the investment.
9. A stock has a required rate of return of 12% as per CAPM, Market return = 10% and risk free return = 7%. Calculate Beta.
10. A Ltd. currently pays a dividend of Rs.2 per share and this dividend is expected to grow at 5% annual rate forever. What value would you place on the equity share if the required rate of return is 9%?

SECTION – B

ANSWER ANY FIVE QUESTIONS: (5 x 8 = 40)

11. Explain the Steps involved in Portfolio Management.

12. "Portfolio Risk may be reduced without sacrificing returns if securities are combined correctly." Examine in the light of Markowitz diversification.

13. Brimm Company's equity shares currently sell at Rs. 70 per share. The finance manager of ABC Ltd. expects a constant growth rate of 5% and an end of year dividend of Rs. 4.20 per share.
    (a) If an investor requires a rate of return of 10 percent, should he buy the share?
    (b) What will be the expected rate of return?

14. Mr. Kapoor is evaluating a security. One year Treasury Bills are currently paying a return of 9.1%. Should Mr. Kapoor invest in this security?
The following details are given about the security;

Probability	0.15	0.30	0.35	0.20
Return	15%	7%	10%	5%

15. A bond of Rs. 1,000 with a coupon rate of 14% is redeemable at par in 10 years. Find out the value of bond if:
(i) the required rate of return is 16% and the maturity period is 9 years.
(ii) the required rate of return is 14% and redeemable at Rs. 1050 after 10 years.

16. An investor has short-listed the following securities for investment:

Security	Alpha	Beta	Residual Variance
A	3.72	0.99	9.35
B	0.6	1.27	5.92
C	0.41	0.96	9.79
D	-0.22	1.21	5.39

Market return is expected to be 13.5% and variance of the market is 10%. Which security should be preferred by the investor from the point of view of risk and return?

17. The following data give the returns of two companies Arise Ltd and the Sunrise Ltd.:

Year	Sunrise Ltd.	Arise Ltd.
1	30%	50%
2	60%	60%
3	40%	50%
4	50%	60%
5	60%	80%

Calculate return and risk.

SECTION – C

ANSWER ANY TWO QUESTIONS: (2 x 20 = 40)

18. You have been asked by a client for advice based on the following data.

Year	**Return (%)**		
	A	**B**	**C**
2016	12	16	12
2017	14	14	16
2018	16	12	14

a. What is the return and standard deviation of these securities over the three year period?
b. What is the expected return of a portfolio containing equal proportion of all three securities?
c. How would you characterize the correlation between the returns of the portfolio?
d. What is the risk of the portfolio?

19. An investor wants to invest in Company A and based on his analysis of the balance sheet and the income statement, the following details are given:

BALANCE SHEET EXTRACTS OF COMPANY A FOR 2013

	(Rs. in lakhs)
Current Assets	400
Fixed Assets	1,000
Total Assets	1,400
Current Liabilities	200
Long-term liabilities at 9% interest	600
Net worth	600
Total liabilities and net worth	1400

INCOME STATEMENT OF COMPANY A

(Rs. in lakhs)

	2013	**2012**
Sales	1920	1740
Less: Cost of goods sold	1,200	1,000
Gross profit	720	740
Less: Operating expenses	640	600
EBIT	80	140

Assume that Company A pays Rs.54 lakhs per year as interest expenses, is in the 30% tax bracket, and pays out 40% of its after tax earnings as cash dividends. Carry out the financial analysis and answer the following questions:

a. Do a comparative analysis of the income statements and give reasons for the fall in EBIT in 2013.
b. Calculate the return on equity (ROE), debt equity ratio, and fixed asset turnover ratio.
c. What is the rate of growth of earnings of Company A?
d. Assuming cost of equity (Ke) to be 15%, what will be the value of the company's equity share if it has 6,00,000 equity shares outstanding?

20.

Economy	**Probability**	**Treasury Bills**	**Stock I**	**Stock II**	**Market Portfolio**
Recession	0.2	7%	-12%	20%	-10%
Normal	0.5	7%	20%	10%	13%
Boom	0.3	7%	40%	-10%	30%

a. Calculate expected return and standard deviation of stock I, II and market portfolio.
b. Calculate beta for stocks I and II.
c. What is the expected return and standard deviation of a portfolio in which stocks I and II are equally weighted?
d. Are stocks I and II correctly priced?

21. From the following information given about different securities, construct an optimal portfolio using Single Index Model:

Security	Expected Return	Beta	Residual Variance
A	15%	1.5	10
B	10%	1.0	20
C	9%	0.8	10
D	13%	1.5	20
E	16%	1.0	30

Risk-free interest rate is 5% and variance of market is 10%.

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