STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 600 086.
(For candidates admitted during the academic year 2004-2005)

SUBJECT CODE : **CM/MO/PF64**

**B.Com. DEGREE EXAMINATION APRIL 2007**
COMMERCE
SIXTH SEMESTER

| | | |
|---|---|---|
| COURSE | : | **MAJOR – OPTIONAL** |
| PAPER | : | **PORTFOLIO MANAGEMENT** |
| TIME | : | **3 HOURS** |

**MAX. MARKS : 100**

## SECTION - A

ANSWER ALL QUESTIONS: ( 10 x 3 = 30 )

1. What is meant by "efficient frontier"?

2. What do you understand from the term "Passive portfolio management" in the context of equity?

3. State the proposition under the weak form of efficient market hypothesis.

4. What are the risks associated with investment in bonds?

5. Define – Tactical asset allocation.

6. A borrower offers 16% nominal rate of interest with quarterly compounding. What is the effective rate of interest?

7. Firms A and B merge. Before the merger, the following information is available-

| | Mean rate of return (%) | Beta |
|---|---|---|
| Firm A | 25 | 2.0 |
| Firm B | 10 | 0.5 |

The market portfolio's expected rate of return is 15%.
Assume CAPM holds. After the merger, the newly merged firm's beta is 1.25.
What were the relative sizes of these two firms before the merger? Explain.

8. You are asked to choose between investment in two stocks X and Y whose details are as follows-

| | Stock X | Stock Y |
|---|---|---|
| Expected return (%) | 20 | 25 |
| Risk (standard deviation) (%) | 6 | 7 |

Which investment is more risky? Why?

9. You had bought 100 shares of Gamma Industries Limited in April 2005 for Rs.40 per share. During October 2005, you received a dividend of Rs.2 per share. The company made a bonus issue of 1:1 in June 2006. During September 2006, a dividend of Rs.1.50/- per share (excluding the bonus shares issued in June 2006) was declared and paid by the company. You sold all the shares in March 2007 for Rs. 35 per share. Compute the annualized return on this investment.

..2

10. The following information is available –

| | Stock A | Stock B |
|---|---|---|
| Expected return (%) | 16 | 12 |
| Standard deviation (%) | 15 | 8 |
| Coefficient of correlation | 0.60 | |

What is the expected risk of a portfolio in which A and B have weights of 0.6 and 0.4?

SECTION B

ANSWER ANY FIVE QUESTIONS. (5X8=40)

11. Akhil wants to retire at 55 years. He has just celebrated his $30^{th}$ birthday. He wants to provide for an annual pension of Rs.2,40,000 commencing from his $56^{th}$ birthday for a period of 15 years. If he wants to make a lump sum investment now towards this, how much should he invest, given that the interest rates are expected to be 10% for the next 25 years and 12% thereafter?

12. The following table gives an analyst's expected return on two stocks for particular market returns:

| Market Return | Aggressive Stock | Defensive Stock |
|---|---|---|
| 6% | 2% | 8% |
| 20 | 30 | 16 |

a. What are the betas of the two stocks?
b. What is the SML corresponding to these parameters?

13. The current dividend on an equity share of National Computers Limited is Rs.5.00. The present growth rate is 50%. However, this will decline linearly over a period of 8 years and then stabilize at 10%. What is the intrinsic value per share of National Computers, if investors require a return of 18% from its stock?

14. Sangam Enterprises recently paid an annual dividend of Rs.3.50 per share. Earnings for the same year were Rs.7.00 per share. The required return on equity with similar risk is 12%. Dividends are expected to grow 10% per year indefinitely. Calculate the company's normal price-earnings ratio.

15. What are the stages in the Industry Life Cycle? Explain with illustrations. What is the significance of this concept to an investor in the context of fundamental analysis?

16. Distinguish – Investment and Speculation. Also state the investment objectives and constraints.

17. Distinguish Yield to Maturity and Realized Yield to Maturity. Why should they differ? Hence, list the factors you think would influence the change in interest rates.

## SECTION C

ANSWER ANY TWO QUESTIONS. (2X15=30)

18. What is meant by Characteristic Regression Line? What does the slope of this indicate? Is there any significance to the y-intercept of this line? Discuss.

19. What are the different types of economic indicators used to study the economy in the context of fundamental analysis? Give examples. Choose any two of them and explain as to how is it useful to draw conclusions regarding the choice of investments in the stock market.

20. The current dividend on an equity share of Pioneer Technology is Rs.3.00. Pioneer is expected to enjoy an above-normal growth rate of 40% for five years. Thereafter, the growth rate will fall and stabilize at 12%. Equity investors require a return of 15% from Pioneer's stock. What is the intrinsic value of the equity share of Pioneer?

21. You are given the following details in respect of two stocks M and N –

| State of Economy | Probability | Returns of (%) | |
|---|---|---|---|
| | | Stock M | Stock N |
| Boom | 0.20 | 15 | 10 |
| Normal growth | 0.30 | 10 | 20 |
| Depression | 0.25 | 8 | 32 |
| Recession | 0.25 | 4 | 40 |

a. Compute the return of a portfolio with equal weightage of both the stocks.
b. Is it possible to create a minimum variance portfolio with these two stocks? Validate your finding.

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