

AQ-1380

M.B.A. Semester—IV Examination
SECURITY ANALYSIS AND PORTFOLIO
MANAGEMENT

Paper—MBA/4102/CGF

Time : Three Hours] [Maximum Marks : 70

- N.B. :—** (1) Figures to the right indicate marks.
(2) Attempt **ALL** the questions.
(3) Annuity Tables showing future and present values and scientific calculator is permitted.

SECTION—A

1. (a) What are the principal tasks of SEBI ? Explain in brief ; the future challenges SEBI has to address. 14

OR

- (b) The general movement of the market is typically measured by indices. Do you Agree ? Explain the various types of stock market indices. Also discuss the various issues considered in constructing the index. 14

SECTION—B

2. (a) Explain the various factors considered in company analysis with reference to security analysis ; in brief. 7

(b) The following are data for Anand Products :

Particulars	Rs. in Lakhs
Assests	6,000
Short term Liab.	450
8 % Debentures	1250
10 % Bonds	500
Common Stock (Rs 10 par)	3500
Surplus	300
Revenues	6000
Operating expenses	5950
EBIT	650
Interest	150
EBT	500
Taxes	200
Dividend	50

Find out following ratios :

- (1) Asset turnover
- (2) Debt-Equity ratio
- (3) Dividend payout ratio.

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OR

SECTION—C

5. Following information is available :

Fund	Return %	Standard deviation %	Beta
Gold	7	15	0.72
Platinum	16	35	1.33
Market index	10	24	1.00

Assuming the risk free return as 5 % calculate :

- (1) Differential return i.e. Jensen's measure of predictive ability for the two funds. 8
- (2) Calculate the net selectivity measure i.e. Fama's measure for platinum fund only. 6

- (b) Given the following information and the assumptions of single index model : what is the Beta of Stock I ?

Beta of Stock II : 1.20

Variance of market return : 0.3162

Covariance between return of

I and return of II : 0.09

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OR

- (c) Compare and contrast the capital market line with the security market line. 7
- (d) Given the three portfolios in the following table with expected return R_i and the sensitivity factors bi_1 and bi_2 ; what is the equation of the plane in R_i ; bi_1 and bi_2 space defined by these portfolios :

Portfolio	R_i	bi_1	bi_2
A	14	0.8	0.8
B	10.8	0.6	0.4
C	11.2	0.4	0.6

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- (c) What do you mean by Technical analysis ? What are its assumptions ? How does technical analysis differ from the fundamental analysis ? 7

- (d) Following information is available regarding Co. A.

Balance sheet of A Company—1999

Liabilities		Assets	
Net Worth	600	Fixed Assets	1000
Long term Liab.			
(@ 9% Int.rate)	600	Current Assets	400
Current Liab.	200		
	<u>1400</u>		<u>1400</u>

Income Statement of Company A

Particulars	1998	1999
	Rs. in lakhs	Rs. in lakhs
Sales	1740	1920
Less cost of goods sold	1000	1200
Gross profit	740	720
Less operating exp.	600	640
EBIT	140	80

Assume that Co. A pays Rs. 54 lakhs interest per year, is in 30 % tax bracket and pays out

40 % of its after tax earnings as cash dividends.
Carry out financial analysis and find out the answers for the following questions.

(1) What is the reason for the fall in EBIT in 1999 ?

(2) What is the rate of growth of earnings if the company does not raise capital externally ?

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3. (a) When is the standard deviation of a portfolio identical to the weighted average standard deviation of the securities ?

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(b) Following information is available regarding a portfolio of two securities namely A and B :

(1) Weight or proportion of A 50 %

(2) Weight or proportion of B 50 %

(3) Return of security A 20 %

(4) Standard deviation of return of security A 18 %.

Return of security B 15 %

Standard deviation of return of security B 12 %

Coeff. of correlation between returns of A and B 0.8

Calculate :

(1) Average return of the portfolio.

(2) Standard deviation of the portfolio. 7

OR

(c) Explain how standard deviation of a portfolio comprising of three securities is found out with the help of Mean-Variance criterion ; with the help of suitable example. 7

(d) Following information is available :

Probability	Return of the Security
0.15	15 %
0.30	7 %
0.40	10 %
0.15	5 %

One year Treasury bills are currently paying 9.1 %. Calculate the security's expected return and its standard deviation. Should we invest in the security ? 7

4. (a) Explain the concept of efficient frontier. 7