



3.3.3 : Investment Analysis and Management

Max. Marks : 70

Answer **any five** of the following. **Each** question carries **five** marks. (5×5=25)

- P.T.O.



7. The rate of return on the stock of Omega Electronics and on the market portfolio for 6 periods has been as follows :

Period	Return on the stock of Omega Electronics(%)	Return on the Market Portfolio(%)
1	18	15
2	10	12
3	-5	5
4	20	14
5	9	-2
6	18	16

- What is the beta of the stock of Omega Electronics ?
- Establish the characteristic line for the stock of Omega Electronics.

SECTION – B

Answer **any three** questions. **Each** question carries **10** marks.

(3×10=30)

- Explain the concept of Relative Strength Index (RSI) and how do RSI indicate the momentum of price change with example ?
- What is efficient frontier in Markowitz Model ? Explain the Markowitz concept with example.
- Consider the following data for four stocks.

Stock	Alpha	Variance Systematic	Unsystematic Variance
A	- 0.06	5	4
B	0.1	2	6
C	0.00	3	1
D	- 0.14	3	2

The market expected to have 12% return and 10% market variance. Calculate the Expected return of portfolio consisting of equal portion of stocks A, B, C and D and also calculate Portfolio risk.



11. Consider the following information for three mutual funds, L, M and N and the market.

	Mean return (%)	Standard deviation (%)	Beta
L	15	20	1.6
M	12	11	0.8
N	18	15	1.3
Market index	13	14	1.00

The mean risk-free rate was 8 percent. Calculate the Treynor measure, Sharpe measure, Jensen measure and M^2 for the three mutual funds and the market index.

SECTION – C

12. **Compulsory Question :**

(1×15=15)

In light of the global recession and the threat of war in the Middle East, the market analyst predicts that the chance of having a booming stock market with probability of 0.25. The strong fundamentals in the economy offer hopes of normal market with probability of 0.5 of the time. But there is always a 0.25 probability of downward trend. Mr. Anand has bought Hightech and Rapid Info stocks in the IT sector. He has also bought the stocks of Comfo Life which operates in the consumer goods sector. The returns in percentage are given in the table below.

Sl. No.	Company	Returns %		
		Recession	Normal	Boom
1	Hightech(A)	10	14	16
2	Comfo Life(B)	9	13	18
3	Rapid Info(C)	14	12	10

Apply mean variance criterion to the individual stocks. If Mr. Anand invests one-third of his resources in each stock, what will be his portfolio return and risk be ?
