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III Semester M.B.A. (Day & Evening) Degree Examination, April/May - 2026

MANAGEMENT

Investment Analysis and Portfolio Management

(CBCS Scheme 2019 Onwards)

Time : 3 Hours **Maximum Marks : 70**

SECTION - A

Answer any Five of the following questions. Each question carries 5 marks.

(5×5=25)

1. Explain the functions and importance of the New Issue Market in capital formation.
2. List out various approaches to study behavioural finance. Explain.
3. The market price of Stock Atco Ltd. is Rs. 102 and its Alpha is -1.3 percent. The realized return on the stock is 16 percent per annum and the risk-free rate of return is 7.02 percent per annum. Market risk premium is 7 percent per annum. What would be the required rate of return on the stock of Atco Ltd. if its covariance with the market portfolio declines by 50 percent? Why Beta analysis is required for the investment?
4. If A and B Companies equity have the following risk and return:

   $E(R_A) = 14\%$ $E(R_B) = 16\%$

   $Risk_A = 22\%$ $Risk_B = 25\%$

   The correlation of coefficient is 0.45

   Determine the weights of minimum risk portfolio and also compute the return and risk.
5. The following information has been extracted from the stock exchange:

Stocks	Expected Return	Beta	Standard Deviation
A	15.35	0.75	0.4
B	18.70	1.52	0.3
C	10.50	1.31	1
D	13.70	1.48	0.25
E	21.00	1.51	0.18
F	25.90	1.28	0.20
T-Bills	7.65		
Index	14.95		

With the help of SML equation find out whether the following stock is overpriced or underpriced.

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6. Rank the three funds given below with the help of Treynor and Sharpe index.

Growth Fund	Return (in Percentage)	Beta	Standard Deviation
X	12	1.5	10
Y	16	1.2	12
Z	14	0.75	10
R_f	7	—	—

Is there any difference in the ranking according to these measures? If so why?

7. Ram did an investment analysis for stock A. The results of the analysis are as follows. The market price of risk and sensitivities for the stock is given below. The risk-free rate of interest is 6 percent.

Factors	Alpha	Factor sensitivity
Interest factor Risk	0.9	0.9
Purchasing Power Risk	0.9	1.8
Managing Risk	1.3	1.6
Market Risk	0.8	1

The probability of getting a return on stock A is given below:

Return (in Percentage)	Probability (in Percentage)
15	40
20	30
10	20
08	10

Based on the above information compute the expected return on stock A as per Multi-Factor Model and Probable return.

SECTION - B

Answer any Three of the following questions. Each question carries 10 marks.

(3×10=30)

8. Explain the Relative Strength Index (RSI) and its use in identifying overbought and oversold conditions.

9. A stock of Rs. 120, pays on dividends. The possible prices that the stock might sell for at the end of the year with the respective probabilities are:

Price (Rs.)	115	120	125	130	135	140
Probability	0.10	0.10	0.20	0.30	0.20	0.10

From the above information you are required to calculate:

a) Expected Rate of Return

b) Standard Deviations of Returns

c) Coefficient of Variance with proper justification

10. Using Sharpe Model of portfolio optimization, construct the optimum portfolio out of the following securities assuming $R_f = 7\%$ and $\sigma_m^2 = 20\%$

Stocks	**Expected Return**	**Unsystematic Risk**	**Beta**
A	8.00	22.00	0.60
B	22.00	19.00	1.50
C	18.00	08.00	1.10
D	14.00	09.00	1.30
E	17.00	16.00	1.50

11. The one period rates of return on stock B and the market portfolio are given below:

Period	**Return on Security A**	**Return on Market Portfolio (%)**
1	16	22
2	18	14
3	24	18
4	22	16
5	15	20
6	–8	4
7	19	–6
8	15	5
9	–8	12
10	25	11

What is the beta of Security A?

What is the characteristic line for Security A?

Predict the value of Security A if market return turns out be 17 percent.

SECTION - C

12. Compulsory (Case study) : **(1×15=15)**

Mr. Sudakar recently graduated in Finance and have been hired as a financial planner Radiant securities company. His manager has assigned the task of investing Rs. 10,00,000 for a client who has a 1-year investment horizon. Manager asked to consider the following investment alternatives: T-Bills, Stock A , Stock B, Stock C and Market index.

The economics cell of radiant securities has developed the probability distribution for the state of the economy and the equity researchers of Radiant securities have estimated the rates of the return under each state of the economy.

He gathered the following information from them

State of the Economy	Probability	T-Bills	Stock A (in %)	Stock B (in %)	Stock C (in %)	Market Portfolio (in %)
Recession	0.2	6.0	(15.0)	30.0	(5.0)	(10.00)
Normal	0.5	6.0	20.0	(5.0)	15.0	16.0
Boom	0.3	6.0	40.0	(15.0)	25.0	30.0

His client is a very curious investor who has heard a lot relating to portfolio theory and asset pricing theory. He request Sudhakar to answer the following questions:

a) What is expected return and standard deviation of return for Stock A, B and C and market portfolio?

b) What is the covariance between the returns on A and B? returns on A and C?

c) What is the coefficient of correlation between the returns on A and B? Returns on A and C?

d) 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?