PRESIDENCY UNIVERSITY

BENGALURU

End - Term Examinations – December 2025

Date: 17 – 12- 2025   **Time:** 01:00pm – 04:00pm

School: SOC / SOM (UG)	**Program:** B.COM
Course Code: COM3042	**Course Name:** Investment Analysis
Semester: V	**Max Marks**:100	**Weightage**:50%

CO - Levels	CO1	CO2	CO3	CO4	CO5
Marks	25	25	25	25	-

Instructions:

(i) *Read all questions carefully and answer accordingly.*

(ii) *Do not write anything on the question paper other than roll number.*

Part A

Answer ALL the Questions. Each question carries 2marks.   **10Q x 2M=20M**

1.	Explain the meaning of risk in the context of investment decisions.	2 Marks	L2	CO1
2.	State the meaning of market efficiency in simple terms.	2 Marks	L2	CO1
3.	Give two examples of systematic and unsystematic risk.	2 Marks	L1	CO1
4.	List the steps involved in the investment process.	2 Marks	L2	CO1
5.	List two factors that influence the market price of a bond.	2 Marks	L1	CO2
6.	Define current yield and yield to maturity (YTM).	2 Marks	L1	CO2
7.	Explain the use of moving averages as a technical indicator.	2 Marks	L2	CO3
8.	Define support and resistance levels in price charts.	2 Marks	L2	CO3
9.	Define Sharpe ratio.	2 Marks	L2	CO4
10.	Explain the purpose of the Jensen's Alpha in evaluating portfolio performance.	2 Marks	L2	CO4

Part B

Answer ALL the Questions. Each question carries 7 marks.   **5Q x 7M = 35M**

11.	A share currently priced at ₹48 pays no dividend. The probable prices at the end of one year and their associated probabilities are given. Compute the expected return and the standard deviation of returns.	07 Marks	L3	CO1

Probability	0.20	0.20	0.30	0.20	0.10
Price at year-end (₹)	52	56	60	66	72

	Or			
12.	Given below is the distribution of the stock's possible annual returns. Using the data, calculate the expected return and the standard deviation of returns.	07 Marks	L3	CO1

Possible returns (%)	-18	-8	5	12	20	27	33
Probability	0.10	0.15	0.15	0.20	0.20	0.10	0.10

13.	Blue Ocean Foods Ltd. is projected to pay a dividend of ₹2.80 per share next year. The dividends are likely to grow at 7% annually forever. The required rate of return on the equity of the company is 16%. Determine the intrinsic value of the equity share based on the constant growth model.	07 Marks	L3	CO2
	Or			
14.	A bond with a par value of ₹2,000 carries a coupon rate of 8% and matures in 10 years. The bond is currently trading at ₹1,700. A. Calculate the Yield to Maturity (YTM) using the trial-and-error method. B. Calculate the YTM using the approximation method.	07 Marks	L3	CO2

15.	Apply the framework of fundamental analysis to compare the performance of two companies operating in the same sector.	07 Marks	L3	CO3
	Or			
16.	Analyze how macroeconomic indicators such as interest rates, taxation policies, and exchange rates influence stock market valuation.	07 Marks	L4	CO3

17.	A retail investor wants to invest in ABC Bank's shares. Fundamental analysis shows strong financial ratios and improving asset quality. However, technical charts indicate a bearish trend with falling moving averages. Analyze the situation and explain whether the investor should rely on fundamental or technical analysis in making the final decision.	07 Marks	L4	CO3
	Or			

18.	Calculate the 5-Day Simple Moving Average (SMA) and Exponential Moving Average (EMA) using the following data:	07 Marks	L3	CO3

Day	Closing Price (₹)
1	28.40
2	29.10
3	29.60
4	30.20
5	29.80
6	30.40
7	31.00
8	31.50
9	32.10
10	32.40

19.	Using the concept of the Security Market Line (SML), apply CAPM to determine whether a security is overvalued or undervalued. Explain how the SML helps investors in selecting securities.	07 Marks	L2	CO4

Or

20.	Consider the following data related to two mutual funds and the market index. The returns, standard deviations, and beta values are given below:	07 Marks	L3	CO4

Fund	Return (%)	Standard Deviation (%)	Beta
A	11	17	0.6
Z	20	27	1.5
M (Market Index)	14	19	1.0

The risk-free rate of return is 8%.

Using the above information, calculate the Sharpe Ratio and Treynor Ratio for Fund A, Fund Z, and the Market Index.
Based on your calculations, briefly comment on the performance of these funds.

Part C

Answer any three Questions. Each question carries 15marks **3Q x 15M=45M**

21.	An investor is evaluating a one-year investment in a share currently valued at ₹55. The share does not pay dividends, and it is expected that the price after one year will be ₹68 or ₹74, with equal probability (0.5 each). The investor buys 280 shares using 60% borrowed funds, and the interest rate on borrowing is 9% per annum. (a) Discuss briefly how borrowing affects the expected return of an equity investment. (b) Calculate the expected return and standard deviation of return for the investment.	**15 Marks**	**L3**	**CO1**

22.	Alpha Securities is analysing the performance of a government bond with the following details: a. Face Value: ₹5,000 b. Coupon Rate: 8% c. Current YTM: 9% d. Maturity: 15 years e. Current Market Price: ₹4,650 The firm expects a sudden fall in interest rates due to economic slowdown. The research analyst must apply bond pricing theorems to forecast price movement and risk. 1. Using PV-based bond valuation, explain why the bond currently trades at a discount. (4 marks) 2. Apply bond price theorems to estimate how the bond's price would react if YTM drops from 9% to 7.5%. (4 marks) 3. Discuss how the concepts of duration, reinvestment risk, and convexity help the analyst evaluate the attractiveness of the bond. (7 marks)	**15 Marks**	**L3**	**CO2**

23.	A stock has been trading sideways for several weeks after a long upward rally. The line chart shows a flattening trend, while the bar chart reveals declining volumes on up-days and rising volumes on down-days. However, the candlestick chart shows bullish signs such as a morning star and several strong green candles near the support zone. The point & figure chart indicates the possibility of an upcoming double-top breakout, whereas the medium-term chart displays a developing symmetrical triangle pattern, usually associated with continuation movements. Evaluate whether these combined chart indications provide sufficient evidence to initiate a buy position, or whether the signals remain uncertain and require further confirmation. Justify your answer by assessing the strength of the trend, the reliability of each chart type, and the clarity of the observed patterns.	**15 Marks**	**L5**	**CO3**

24.	Explain the structure and formation process of the Head & Shoulders chart pattern, highlighting the investor psychology behind each stage of its development. Compare this pattern with other major chart patterns and describe how a technical analyst determines the neckline, computes the projected price objective, and evaluates the Head & Shoulders pattern as an indication of an upcoming trend reversal.	**15 Marks**	**L2**	**CO3**

25.	Security X and Security Y have the following expected returns, standard deviations, and correlation coefficient:	**15 Marks**	**L3**	**CO4**

Security	Expected Return	Standard Deviation	Correlation (X,Y)
X	10%	40%	
Y	22%	32%	$R_{xy} = -0.25$

An investor allocates 30% of the portfolio to Security X and the remaining 70% to Security Y.

Compute the expected return of the portfolio, portfolio variance and portfolio risk.