

STVC ON INVESTMENT ANALYSIS AND PORTFOLIO MANAGEMENT: “ROLE OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING”

(January 13, 2024- March 31, 2024)

Examination Date: March 31, 2024 at 6.00 PM

Link: <https://meet.google.com/xho-pdsw-uon>

Classes/Lectures	Dates	Days	Time (IST)	Title of the Lecture
Lecture-1	13.1.2024	Saturday	6:00 PM - 7:15 PM	Introduction to Financial Markets and Market Microstructure
Lecture-2	14.1.2024	Sunday	6:00 PM - 7:15 PM	Risk-Return Framework in Financial Markets
Lecture-3	20.1.2024	Saturday	6:00 PM - 7:15 PM	Efficient Market Hypothesis and Behavioral Finance
Lecture-4	21.1.2024	Sunday	6:00 PM - 7:15 PM	Introduction to Mean-Variance framework and Portfolio Theory
Lecture-5	27.1.2024	Saturday	6:00 PM - 7:15 PM	Portfolio Optimization with Two Securities
Lecture-6	28.1.2024	Sunday	6:00 PM - 7:15 PM	Portfolio Optimization with Multiple Securities

Lecture-7	3.2.2024	Saturday	6:00 PM - 7:15 PM	Single Index Models: Formulation and Construction
Lecture-8	4.2.2024	Sunday	6:00 PM - 7:15 PM	Multi-Index Models: Formulation and Construction
Lecture-9	10.2.2024	Saturday	6:00 PM - 7:15 PM	Capital Asset Pricing Model (CAPM)
Lecture-10	11.2.2024	Sunday	6:00 PM - 7:15 PM	Arbitrage Pricing Theory (APT)
Lecture-11	17.2.2024	Saturday	6:00 PM - 7:15 PM	Advanced Portfolio Optimization and Risk Management
Lecture-12	18.2.2024	Sunday	6:00 PM - 7:15 PM	Introduction to Volatility Models
Lecture-13	24.2.2024	Saturday	6:00 PM - 7:15 PM	Introduction to Programming
Lecture-14	25.2.2024	Sunday	6:00 PM - 7:15 PM	Intermediary programming for Data Analytics
Lecture-15	2.3.2024	Saturday	6:00 PM - 7:15 PM	Advanced Programming for Data Analytics and Machine Learning
Lecture-16	3.3.2024	Sunday	6:00 PM - 7:15 PM	Introduction to Machine Learning: Regression Paradigm
Lecture-17	9.3.2024	Saturday	6:00 PM - 7:15 PM	Application of Regression in Financial Markets and Portfolio Management
Lecture-18	10.3.2024	Sunday	6:00 PM - 7:15 PM	Introduction to Classification Algorithms (Logit/Probit Models)
Lecture-19	16.3.2024	Saturday	6:00 PM - 7:15 PM	Application of Classification in Financial Markets and Portfolio Management
Lecture-20	17.3.2024	Sunday	6:00 PM - 7:15 PM	Advanced Applications: ARCH/GARCH Models

Lecture-21	23.3.2024	Saturday	6:00 PM - 7:15 PM	Advanced Applications: VaR/CVaR (ES) models
Lecture-22	24.3.2024	Sunday	6:00 PM - 7:15 PM	Case Study on AI/ML Applications on Financial Markets and Banking: Part I
Lecture-23	30.3.2024	Saturday	6:00 PM - 7:15 PM	Case Study on AI/ML Applications on Financial Markets and Banking: Part II
Lecture-24 Exam MCQ	31.3.2024	Sunday	6:00 PM - 7:15 PM	Final Exam (MCQ)