

FINANCIAL DERIVATIVES

Semester	IV	CIE Marks : 40
Course Code	18MBAFM405	SEE Marks : 60
Teaching Hours / week (L:T:P)	3-0-0	Exam Hours : 03
Credits : 03		

Course Objectives:

1. To understand various concepts and terminologies used in various financial derivatives.
2. To explain and critically evaluate various financial derivatives such as forwards, futures, options, financial swaps, credit derivatives etc.
3. To apply various financial derivatives in hedging risk and analyse it.

Unit1:

An Overview of Financial Derivatives: Meaning, benefits, types (both exchange traded and OTC traded) and features of financial derivatives- Factors causing growth of derivatives-functions of derivatives market- Derivative market players (Hedgers, speculators and arbitrageurs)- Derivatives market in India. (Theory).

Unit2:

Futures and Forwards: Meaning, features and types of futures/forwards- Futures vs Forwards-Mechanics of buying and selling futures/forwards- Hedging through futures/forwards-Marking-to-market process-contract specifications of stock, index and commodity futures-valuation of futures/forwards using cost of carry model-Arbitrage process-Interest Rate Futures & options. (Numerical problems on MTM and valuation of futures/forwards). (Theory and Problems).

Unit3:

Option Contracts: Meaning, features and types of option contracts- Options vs futures/forwards-Mechanics of buying and selling option contracts-contract specifications of stock, index and commodity options- Option pricing-factors affecting option pricing-Valuation of option contracts using Black Scholes model and Binomial model-Put-call parity theory-Option Greeks-Option Trading strategies-Interest rate options- Exotic options. (Numerical problems on all aspects except exotic options). (Theory and Problems).

Unit4:

Financial Swaps: Meaning, features and advantages of financial swaps- Types of financial swaps (Interest rate swap, currency swap, equity swap and commodity swap)-Mechanics of interest rate swaps- Triangular swap (Numerical problems only on interest rate swap including triangular swap)- valuation of interest rate swaps- Only theory. (Theory and Problems).

Unit5:
Commodity Derivative Market: Meaning of commodity derivative
Commodity derivative exchanges (with commodities traded) in India-
Trading and settlement system of commodity derivatives-SEBI Guidelines
for commodity market-commodities traded. (Theory).

Unit6:
Credit Derivatives and VaR: Credit Derivatives-Total Return Swap
(TRS)-Credit Default Swap (CDS)-Types of CDS-Asset Backed Securities
(ABS)-Collateralised Debt Obligation (CDO)-Sub-Prime Crisis-2007-
Credit Spread Options-Probability of Default- Forward Rate Agreement
(FRA)-Interest Rate Caps/Floors/Collars-Types of Interest Rates-Zero
Rate-Forward Rate-Value-at-Risk-Meaning, VaR Models-Stress testing and
back testing. (Numerical problems only on VaR, Zero Rate and Forward
rate). (Theory and Problems).
Question paper: 40 % Theory and 60% Problems.

COURSE OUTCOMES:

At the end of the course, the students will be able to:

1. Understand the mechanism of forwards/futures, options, financial swaps, various credit derivatives and VaR with their features, merits and demerits.
2. Assess the application of forwards/futures, options, financial swaps, various credit derivatives and VaR using numerical problems.
3. Application of financial derivatives in risk management.
4. Critically evaluate various financial derivatives.

RECOMMENDED BOOKS:

1. Options Futures & Other Derivatives, John C. Hull, Pearson Education.
2. Derivatives and Risk Management, Rajiv Srivastava, Oxford University Press, 2010.
3. Options & Futures- Vohra & Bagri, 2/e, TMH.

REFERENCE BOOKS:

1. Derivatives, Principles and Practice, Sundaram & Das, Mc Graw Hill.
2. Options & Futures -Edwards & Ma, 1/e, McGraw Hill.

CO-PO MAPPING

CO	PO				
	PO1	PO2	PO3	PO4	PO5
CO1	X				
CO2	X			X	
CO3				X	
CO4				X	