

**NISM-Series-IV: Interest Rate Derivatives Certification Examination
(NISM-Series-IV:IRD Examination)****Test Objectives (with effect from August 21, 2013)****Unit 1: Fixed-income or Debt Securities – Introduction**

- 1.1 Overview of financial markets and grouping of markets based on asset type
- 1.2 Overview of fixed-income securities and economic role of debt markets
- 1.3 Know the classification of fixed-income securities based on cash flow pattern, tenor, etc.
- 1.4 Understand the difference between fixed-income security and fixed-return security
- 1.5 Debt securities versus equity securities, debt market and equity market as components of capital market
- 1.6 Explain the importance of debt market for the economic development of a country and know the relative size of debt and equity markets globally and in India

Unit 2: Interest Rate – Introduction

- 2.1 Understand the concept of interest rate and interest rate as rent on money
- 2.2 Explain the importance of risk-free interest rate as the basis and benchmark for all valuations and differentiate between risk-free interest rate and risky interest rate
- 2.3 Understand term structure (yield curve), its shape, shifts and interpretation
- 2.4 Understand the conversion of interest rate into interest amount: effect of payment frequency, compounding frequency, day count basis and business day adjustment
- 2.5 Explain the concept of accrued interest

Unit 3: Return and Risk Measures for Debt Securities

- 3.1 Define spot rate (or zero rate) and holding period return
- 3.2 Define and calculate various measures of return: coupon, current yield, yield-to-maturity
- 3.3 Describe the relation between spot rate, bond price and yield-to-maturity
- 3.4 Define and calculate various measures of risk: Macaulay Duration, Modified Duration, Rupee Duration, Price value of a basis point (PVBP) and Convexity

Unit 4: Interest Rate Derivatives

- 4.1 Define derivatives and discuss economic role of derivatives
- 4.2 Distinguish between bond derivatives and interest rate derivatives with specific reference to features and risks addressed by them
- 4.3 Differentiate between features of Over-The-Counter (OTC) and Exchange-traded derivatives
- 4.4 Timeline of derivatives markets in India

Unit 5: Contract Specification for Interest Rate Derivatives

- 5.1 Know the underlying assets of permissible interest rate derivative contracts in India
- 5.2 Know the market lot / contract amount, contract months, expiry dates of exchange traded derivatives contracts
- 5.3 Understand tick size and its relation to the minimum change in the contract value
- 5.4 Describe the procedure for determining the daily settlement price and final settlement price
- 5.5 Discuss the delivery aspects of interest rate derivatives contracts including conversion factor, invoice amount, cheapest-to-deliver bond

Unit 6: Trading, Clearing, Settlement and Risk Management

- 6.1 Describe in brief the process flow of clearing and settlement
- 6.2 Understand margining and mark-to-market under SPAN
- 6.3 Understand the risk management measures like SPAN, value-at-risk and scenario analysis
- 6.4 Describe and differentiate the process of cash settlement and physical settlement
- 6.5 Understand the peculiarities of physical settlement in bond futures like the settlement period versus the trading period, notice of settlement, physical delivery through electronic book entry system of SGL A/c with RBI and timeline for various actions in the physical settlement process
- 6.6 Understand operational guidelines of Exchanges
- 6.7 List and discuss various order types permissible on the exchanges

Unit 7: Regulations and compliance

- 7.1 Know the role of various regulators in bond and interest rate derivatives market
- 7.2 Discuss the restrictions and limits applicable to resident and non-resident investors
- 7.3 List the regulatory reporting requirements for RBI-supervised entities
- 7.4 Briefly discuss the accounting aspects of interest rate derivatives

Unit 8: Trading and Hedging

- 8.1 Explain speculative / trading strategies with suitable examples
- 8.2 Explain Hedging strategies for managing interest rate risk in loans and bond investments like by adjusting the Duration with futures
- 8.3 List and describe risks associated with futures: basis risk, yield curve spread risk and market liquidity risk

====***====