

NISM-Series-IV
Interest Rate Derivatives Certification Examination

Test Objectives

Unit 1: Introduction to Fixed-Income Securities (FIS) and Interest Rate Market

- 1.1 Understand role and place of FIS among financial markets; why FIS is the mother of all markets
- 1.2 Explain size of FIS market in relation to the stage of economic development; India and the global scene
- 1.3 Explain the importance of risk-free interest rate as the basis and benchmark for all valuation
- 1.4 List factors affecting interest rate in general and India in particular
- 1.5 Understand term structure (yield curve); its shape, shifts and interpretation
- 1.6 Know rationale for introducing interest rate derivatives in India
- 1.7 List regulators and understand the areas of regulations

Unit 2: Interest Rate Derivatives (IRD)

- 2.1 Explain economic role of derivatives
- 2.2 Describe scope of risk management in trading/speculation, hedging, insurance and diversification
- 2.3 Understand uses, misuses and abuses of Risk Management
- 2.4 Describe derivatives markets and products in India and other developed markets
- 2.5 Differentiate between features of Over-The-Counter (OTC) and Exchange-traded products/ markets
- 2.6 Distinguish between bond futures and interest rate futures with specific reference to features and risks addressed by them

Unit 3: Analytical Framework for Interest-sensitive Products

- 3.1 Define and calculate :
 - compounding frequency
 - payment frequency
 - day count basis
 - business day adjustment
- 3.2 Define and calculate various measures of return:
 - coupon,
 - current yield,
 - yield-to-maturity (“yield”)
 - holding period return (HPR)
- 3.3 Define and calculate various measures of risk:

- Macaulay Duration
- Modified Duration
- Rupee Duration
- Price value of a basis point (PVBP)
- Convexity
- Yield volatility

3.4 Understand benchmark 10Y yield in India, its past movements and factors affecting it

Unit 4: Bond Futures Market in India

- 4.1 Understand the peculiarities of bond futures like multiple eligible underlying bonds
- 4.2 List eligibility criteria and the selection of “cheapest to deliver” (CTD) bond; normalization of eligible bonds through “conversion factor”
- 4.3 Describe the procedure for determining the CTD bond
- 4.4 Understand the pricing of bond futures for futures bid price and futures offer price
- 4.5 Understanding the concepts related to repo and reverse repo

Unit 5: Hedging and Speculation

- 5.1 Explain speculative/trading strategies:
 - directional bet on interest rate
 - yield curve spread bet on interest rate
 - barbell and butterfly strategies
- 5.2 Explain Hedging strategies for managing interest rate risk in loans and bond investments like by adjusting the Duration with futures
- 5.3 List and describe risks associated with futures:
 - basis risk,
 - liquidity risk
 - margin funding risk
- 5.4 Discuss RBI guidelines on hedging for different market participants; hedge effectiveness and de-recognition
- 5.5 Explain RBI’s restrictions on market players
- 5.6 Know SEBI’s guidelines and understand the scope of jurisdiction of RBI and SEBI

Unit 6: Operational Mechanism

- 6.1 List various players involved in the execution of trade and their role
- 6.2 Understand operational guidelines by the Exchanges
- 6.3 List the minimum input requirements for specification of order
- 6.4 Understand features, functionality and navigation of menu of Trader workstation:
 - Order types
 - Order status
 - MIS
 - Information flow
- 6.5 Describe controls by Exchanges for smooth execution of orders

Unit 7: Clearing, Settlement and Risk Management

- 7.1 Describe in brief the process flow for clearing and settlement
- 7.2 Understand margining and mark-to-market under SPAN
- 7.3 Understand the risk management measures like SPAN, value-at-risk, scenario analysis and incorporation of under-margining risk
- 7.4 Illustrate margining and mark-to-market process with given SPAN parameters for two consecutive trading days
- 7.5 Describe and differentiate the process of cash settlement and physical settlement
- 7.6 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

Unit 8: Regulatory Framework and Compliance

- 8.1 Know the SEBI regulation that apply to all members
- 8.2 Know RBI regulations that additionally apply to banks, primary dealers, financial institutions, non-bank financial institutions, urban cooperative banks and foreign financial institutions
- 8.3 Know Exchange regulations on trading, clearing and settlement
- 8.4 Know ICAI's regulations on hedge accounting for bodies corporate
- 8.5 Describe in detail compliance reporting