

## **Annexure II – Test Objectives**

### **NISM-Series-XXII: Fixed Income Securities Certification Examination**

#### **Unit 1: Overview of the Indian Debt Market**

- 1.1. Describe broadly the Debt market and its need in financing structure of Corporates and Government
- 1.2. Understand the importance of Debt Markets
- 1.3. Know the Bond market ecosystem
- 1.4. Discuss briefly the role of the Regulators and relevant Regulations
- 1.5. Understand the role of Credit Rating Agencies
- 1.6. Discuss the role of monetary policy in Debt markets
- 1.7. Evolution of debt markets globally and in India
- 1.8. Know the market dynamics of debt markets in India

#### **Unit 2: Types of Fixed Income Securities**

- 2.1. Discuss the classification based on the type of Issuer
  - 2.1.1. Government
  - 2.1.2. Municipal issuers
  - 2.1.3. Corporate
  - 2.1.4. Securitized Debt
- 2.2. Understand the classification based on Maturity
  - 2.2.1. Overnight Debt
  - 2.2.2. Ultra Short Term Debt (Money Market)
  - 2.2.3. Short Term Debt
  - 2.2.4. Medium Term Debt
  - 2.2.5. Long Term Debt
- 2.3. Understand the classification based on Coupon
  - 2.3.1. Plain Vanilla Bonds
  - 2.3.2. Zero-Coupon Bonds
  - 2.3.3. Floating Rate Bonds
  - 2.3.4. Caps and Floor
  - 2.3.5. Inverse Floater
  - 2.3.6. Inflation Indexed Bonds
  - 2.3.7. Step Up/Down Bonds
  - 2.3.8. Deferred Coupon Bonds
  - 2.3.9. Deep Discount Bonds
- 2.4. Discuss the classification based on Currencies
  - 2.4.1. Foreign Currency Denominated Bonds
  - 2.4.2. Masala Bonds
- 2.5. Briefly discuss the classification based on Embedded Options
  - 2.5.1. Straight Bonds
  - 2.5.2. Bonds with a Call Option
  - 2.5.3. Bonds with a Put Option
  - 2.5.4. Convertible Bonds (including FCCB)
  - 2.5.5. Warrants
- 2.6. Briefly discuss the classification based on security
  - 2.6.1. Secured Debt

- 2.6.2. Unsecured Debt
- 2.6.3. Subordinated Debt
- 2.6.4. Credit Enhanced Bonds
- 2.7. Other fixed income securities
  - 2.7.1. Sovereign Gold Bonds
  - 2.7.2. Perpetual Bonds
  - 2.7.3. AT1 Bonds
  - 2.7.4. Tier-2 Bonds
  - 2.7.5. Savings Bonds
  - 2.7.6. High Yield Bonds
  - 2.7.7. Green bonds,
  - 2.7.8. REITs and InvITs
  - 2.7.9. Tax-free Bonds
  - 2.7.10. Asset Linked Bonds
  - 2.7.11. Equity Linked Notes
  - 2.7.12. Participatory Bonds
  - 2.7.13. Income Bonds
  - 2.7.14. Payment in Kind Bonds
  - 2.7.15. Extendable Bonds
  - 2.7.16. Extendable Reset Bonds

### **Unit 3: Risks Associated with Investing in Fixed Income Securities**

- 3.1. Briefly describe various kinds of risks associated with fixed income securities
  - 3.1.1. Interest Rate Risk
  - 3.1.2. Call risk
  - 3.1.3. Reinvestment Risk
  - 3.1.4. Credit Risk
    - 3.1.4.1. Downgrade Risk
    - 3.1.4.2. Spread Risk or Basis Risk
    - 3.1.4.3. Default Risk
  - 3.1.5. Liquidity Risk
  - 3.1.6. Exchange Rate Risk
  - 3.1.7. Inflation Risk
  - 3.1.8. Volatility Risk
  - 3.1.9. Political or Legal Risk
  - 3.1.10. Event Risk
- 3.2. Discuss the Risk mitigation tools
  - 3.2.1. Use of Credit Derivatives to manage Risk of Default
  - 3.2.2 Use of Interest rate derivatives like Interest rate swaps and Interest rate futures, etc. to manage interest rate risk
  - 3.2.3. Use of Currency derivatives

### **Unit 4: Pricing of Bonds**

- 4.1. Discuss the concept of “Par Value”
- 4.2. Describe the concept of Time Value of Money
- 4.3. Understand the process of determining Cash Flow, Yield and Price of bonds
- 4.4. Understand the Pricing of different bonds including:
  - 4.4.1. Valuing bonds with maturities less than one year

- 4.4.2. Valuing bonds at non-coupon dates
- 4.4.3. Valuing perpetual bonds
- 4.4.4. Pricing of treasury bills
- 4.4.5. Understand discount factors and bootstrapping
- 4.5. Discuss Price-Yield relationship
- 4.6. Describe the Price Time Path of a bond
- 4.7. Understand the pricing of a Floating Rate Bond

### **Unit 5: Yield Measures and Total Return**

- 5.1. Understand the Sources of Return
  - 5.1.1. Coupon Income
  - 5.1.2. Capital appreciation
  - 5.1.3. Reinvestment income
- 5.2. Describe the Traditional Yield Measures
  - 5.2.1. Current Yield
  - 5.2.2. Yield to Maturity
  - 5.2.3. Effective Yield
  - 5.2.4. Yield to Call
  - 5.2.5. Yield to Put
  - 5.2.6. Yield to Worst
  - 5.2.7. Yield for Portfolio
  - 5.2.8. Yield for Money Market
  - 5.2.9. Yield for floating rate bonds

### **Unit 6: Term Structure of Interest Rates**

- 6.1. Understand the concepts of
  - 6.1.1. Yield curve and yield curve theories:
    - 6.1.1.1. Pure expectation theory
    - 6.1.1.2. Liquidity preference theory
    - 6.1.1.3. Market segmentation theory
    - 6.1.1.4. Preferred habitat theory
  - 6.1.2. Spot curve or Zero coupon yield curve
    - 6.1.2.1. Estimation of Zero coupon yield curve using various models
    - 6.1.2.2. Cubic spline
    - 6.1.2.3. NS and NSS model
  - 6.1.3. Spreads
  - 6.1.4. Forward Rates
- 6.2. Briefly describe the relationship between Spot and Forward Rates
- 6.3. Understand the determinants of the Shape of the Term Structure

### **Unit 7: Measuring Interest Rate Risk**

- 7.1. Identify the Price Volatility characteristics of Option Free Bonds and Bonds with Embedded Options
- 7.2. Understand the concept of Duration
  - 7.2.1. Macaulay Duration
  - 7.2.2. Portfolio Duration
  - 7.2.3. Modified Duration and Interest rate Sensitivity approximation
- 7.3. Identify difference between Modified Duration and Effective Duration

- 7.4. Understand the Price Value of Basis Point (PV01)
- 7.5. Briefly describe Convexity measures
- 7.6. Identify Modified Convexity and Effective Convexity
- 7.7. Understand the Taylor's Expansion and its application in approximating Bond Price changes

### **Unit 8: Indian Money Market**

- 8.1. Introduction to Money market
- 8.2. List the types of instruments in Money market
  - 8.2.1. Borrowing and lending activities
  - 8.2.2. Asset segment (call money, notice money, term money, market repo, triparty repo, T-bills, cash management bills, commercial paper, certificate of deposit and corporate bond repo).
- 8.3. Know the trends in Indian Money Market
- 8.4. Understand the importance of Call money market
- 8.5. Know the important rates in the Indian inter-bank call market
  - 8.5.1. MIBOR
  - 8.5.2. Weighted Average Overnight Call Money Rate (WACR)
  - 8.5.3. Understand the economic utility of Repo market and discuss an example of a Repo transaction

### **Unit 9: Government Debt Market**

- 9.1. Introduction to Government Debt Market
- 9.2. List the types of instruments in Government debt market
  - 9.2.1. Treasury bills
  - 9.2.2. Cash management bills
  - 9.2.3. Dated G-Secs (Fixed rate bonds, Floating rate bonds, Zero coupon bonds, Capital indexed bonds, Inflation indexed bonds, Embedded option bonds, Special securities, STRIPS, SGB, Savings bonds and State development loans)
- 9.3. Know the trends in Indian G-Sec market
- 9.4. Briefly describe the Issuance Mechanism for Government Debt Market
  - 9.4.1. Discuss the Primary Market and Government Borrowing Programme
  - 9.4.2. Discuss the mechanism of Auctions
  - 9.4.3. Underwriting provisions
  - 9.4.4. Institutional Participants
  - 9.4.5. Foreign Investors
  - 9.4.6. Retail Investors
- 9.5. Briefly describe the secondary market infrastructure for G-Secs in India
  - 9.5.1. NDS-OM trading platform
    - 9.5.1.1. Trading
    - 9.5.1.2. Reporting
- 9.6. Briefly describe the Clearing and Settlement system for secondary market trades of G-Secs in India
  - 9.6.1. Know the Qualified Central Counterparty for clearing and settlement
  - 9.6.2. Describe the Default Handling Mechanism
- 9.7. Understand G-Sec valuation
- 9.8. Know the key regulatory guidelines for Government Debt Market

### **Unit 10: Corporate Debt Market**

- 10.1. Introduction to Corporate Debt Market in India and know the key players in this market
- 10.2. List the types of instruments in Corporate Debt Market

- 10.3. Know the trends in Corporate Debt Market in India
- 10.4. Briefly describe the issuance mechanism for Corporate Bonds
  - 10.4.1. Public Issuance
  - 10.4.2. Private Placement
- 10.5. Briefly describe Secondary market mechanism for Corporate Debt Markets
  - 10.5.1. Trading mechanism
  - 10.5.2. Reporting mechanism
  - 10.5.3. Clearing & Settlement
- 10.6. Know the key regulatory guidelines for Corporate Debt Market
- 10.7. Briefly mention the valuation of Corporate Bonds

\*\*\*