



Institute of Actuaries of India

Subject SA5 – Finance

For 2017 Examinations

Aim

The aim of the Finance Specialist subject is to instill in successful candidates the ability to apply knowledge of the Indian financial environment and the principles of actuarial practice to the financial management of clients' affairs.

Links to other subjects

Subject ST5 — Finance and Investment Specialist Technical A provides the underlying principles upon which this subject is based. It is assumed that candidates have a good understanding of these principles

Subject ST9 — Enterprise Risk Management also provides the underlying principles upon which this subject is based.

Objectives

On completion of this subject the candidate will be able to:

- [a]** Demonstrate a knowledge and understanding of the financial markets with particular reference to :
 - (i)** The main features of the capital markets in India, United Kingdom, United States, Japan, Germany and France.
 - (ii)** The main features of the derivatives markets in India, United Kingdom, United States, Japan, Germany and France.
 - (iii)** The main features of the structures of the economies of India, United Kingdom, United States, Japan, Germany and France.
- [b]** Demonstrate knowledge of the influences over the Indian commercial and economic environment from:
 - Central Banks
 - Government policy
- [c]** Demonstrate knowledge of the personal and corporate taxation framework in the Indian context
- [d]** Demonstrate knowledge of the legislative and regulatory framework for finance in the Indian context with particular reference to :
 - Corporate Governance
 - Role of IRDA, SEBI, and RBI
 - Provision of financial services
 - Role and responsibilities of directors

- [e] Show how actuarial techniques may be used to identify and measure financial and non-financial risk.
- Interest rate risk Market risk Credit risk
 - Off-balance-sheet activities
 - Product, Operational and Technology risk
 - Foreign Exchange risk Sovereign risk Liquidity risk Compliance risk
- [f] Identify and describe means for transferring risk to a third party and identify the costs and benefits of doing so.
- [g] Identify and describe means for reducing risk without transferring it, and determine how these may be evaluated.
- [h] Describe how derivatives, synthetic securities and financial contracting may be used to reduce risk or to assign it to the party most able to bear it.
- [i] Discuss the assessment of Capital Adequacy:
- (i) for risk control purposes
 - Capital and insolvency risk
 - Capital adequacy regulations (incl. CAD 1 and 2, Basel I, II and III)
 - Capital Adequacy Regulations in the Indian context related to insurance companies and commercial banks
 - Risk Based Capital
 - (ii) for development purposes
 - War chest capital
- [j] Apply the concept of economic capital and describe methodologies for allocating capital within a financial organisation.
- [k] Demonstrate a knowledge of the principal techniques of hedging using:
- Futures and Forwards
 - Options
 - Swaps
 - Credit Derivatives
 - Securitization and debt issuance
- [l] Describe how financial risks and opportunities influence the selection of firm strategy.
- [m] Determine the value of cash flows with embedded options:
- Determine the cost and price-yield relationship of an embedded option in a series of cash flows
 - Calculate option-adjusted spreads including the impact of prepay on

Mortgage-Backed Securities

- Apply option-adjusted pricing techniques to Mortgage-Backed Securities and other financial instruments.
- [n] Demonstrate a knowledge and understanding of the different methods of evaluating a credit derivative.
- [o] Demonstrate a knowledge and understanding of the main issues associated with corporate finance.
- (i) Capital structure and the cost of capital
- Describe the effect that the capital structure used by a company will have on the market valuation of the company.
 - Demonstrate an understanding of the competing views on — optimal capital structure.
 - Describe how an optimal capital structure for a company to maximize shareholder value might be determined.
 - Analyze the effect of taxes on the value of a company.
 - Describe how market imperfections and taxes will affect the optimal capital structure for a company and discuss the practical difficulties involved.
 - Discuss the direct and indirect costs associated with financial distress and bankruptcy.
 - Discuss how asymmetric information affects choices in financing.
 - Explain how securitization can be used to develop a company's capital structure.
- (ii) Debt financing
- Show how debt can be represented as an option on the assets of a firm.
 - Explain the process by which debt can be valued by:
 - Investors
 - Owners
 - Shareholders
 - Corporate Financiers
 - Accounting Authorities
 - Outline the analysis of credit and factors to be considered when advancing credit.
 - Explain the role of rating agencies in assessing the security of debts.
 - Explain the classes of repayment provision associated with debt securities.
 - Describe the nature and analysis of operational and financing leases.
 - Outline the use of structured lending and leveraged transactions, including mezzanine finance.
 - Describe the main providers of debt finance.

- (iii) Dividend policy
 - Discuss the effect that the dividend policy of a company will have on the market valuation of the company.
 - Discuss the nature of the practical factors that companies should allow for in setting dividend policy.
 - Describe and evaluate the effect on a company's value of bonus issues, share splits, share repurchases, scrip dividends / scrip's in lieu and dividend reinvestment plans.

- (iv) Mergers and acquisitions
 - Outline the possible motives for mergers and divestitures.
 - Determine the impact of a merger or acquisition on earnings and market value.
 - Outline the mechanics of a merger or takeover, including the accounting treatment, financing and defense tactics.
 - Describe the basics of risk assessment for acquisitions.
 - Outline the external influences on mergers and acquisitions including government policy, regulation and controls with particular reference to the Indian regulatory and tax framework impacting Mergers and Acquisitions.

- (v) Outline the processes of cash and treasury management.
- (vi) Capital project appraisal
 - Describe the features of project financing.
 - Discuss the frameworks and techniques for risk assessment, mitigation and management (e.g. RAMP and PRAM).
 - Outline the features of public-private partnerships.
 - Discuss the use of hurdle rates in practice.
 - Discuss the application of appraisal techniques to inventions and innovations.

- [p] Provide coherent advice and recommendations for the overall financial management of clients' affairs:
 - Analyze more complex problems in terms of actuarial, economic and financial factors to a level where appropriate analytical techniques may be used
 - Integrate the results of such an analysis into a coherent whole; and
 - Evaluate critically and interpret the results in a wider context and draw appropriate conclusions

End of Syllabus