

# **Subject**

## **SA2 – Life Insurance**

**For 2017 Examinations**

## Aim

The aim of the Life Insurance Specialist Applications subject is to instill in newly-qualified actuaries the ability to apply knowledge of the Indian life insurance environment and the principles of actuarial practice of life insurance to an Indian life insurance company.

## Links to other subjects

Subject ST2 Life Insurance Specialist Technical provides the underlying principles upon which this subject is based. It is assumed that students have a good understanding of the principles covered in that. Candidates can expect to be examined in aspects of general principles developed in Subject ST2 as well as in the Indian specific aspects developed in this subject.

## Objectives

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

- (a) Define the principal terms used in life insurance in India.
- (b) Describe the major life insurance products, in addition to the generic products covered in Life Insurance Specialist, Technical subject (ST2), of Indian life insurance companies in terms of:
  - the needs of consumers versus the objectives of the insurer
  - the benefits, guarantees, and options that may be provided
  - the main types of products issued
  - the purpose, benefits and risks of the products to the policyholder and the insurer

The products (Group and Individual) under this syllabus objective are:

- term assurance
- income protection insurance
- critical illness insurance
- conventional with profits
- accumulating with profits
- unit-linked
- index-linked
- mortgage endowment
- annuities
- variable annuities
- conventional with profits
- accumulating with profits
- unit linked
- index linked
- group term
- Group gratuity and group superannuation

In addition to above products, candidates are also expected to have a good understanding of the product lines as detailed in IRDA Product Regulations, 2013 (both Linked and Non-Linked).

(c) Describe the effect of the general business environment in India, including the impact on level of risk to the insurer, in terms of:

- new business
- distribution of products
- the wider competitive environment
- the principles of treating customers fairly
- operational risk
- corporate finance
- outsourcing
- securitisation
- mergers and acquisitions
- closed funds

(d) Describe how policyholders' reasonable expectations (PRE) might be measured and managed with regard to the main contract types.

(e) Describe the principles of Indian contract and trust law as they affect life insurance, including reference to IRDA (Protection of Policyholders' Interests) Regulations 2002, and the Redressal of Public Grievances Rules, 1998.

(f) Describe the Indian regulatory environment as it affects life insurance companies in terms of:

- The taxation of the Indian business of life insurance companies and the effect of taxation on the benefits and premiums paid under Indian life insurance contracts.
- The supervision of the Indian business of life insurance companies under the relevant IRDA regulations with regard to:
  - the valuation of the assets and liabilities,
  - the returns to be submitted including the Annual Appointed Actuary's confidential report, transfers of surplus,
  - solvency capital,
  - Realistic balance sheets, individual capital assessments and transfers of liabilities.
- Profit reporting under the IRDA regulations.
- Profit and Embedded Value reporting under the Professional Standards on Indian Embedded Values.
- The requirements of the professional and regulatory guidance relevant to actuaries practising in or advising the Indian life insurance companies, including the production of Financial Condition Reports.
- The capital management of a life insurance company, including determining and improving available capital, projecting future solvency, the principles of asset-liability management and the use of derivatives.
- The role of the Appointed Actuary.
- With profit committee requirement and its roles and responsibilities in managing the with profit business.

(g) Describe internal controls and procedures necessary to enable the financial reporting listed in Objective (f), having regard to efficient management of the business, including accounting conventions and systems.

(h) Describe the principles of dynamic solvency testing in terms of:

- the reasons for projecting solvency
- the alternative measures of solvency, including risk based capital approaches
- the ongoing need for capital and the role of the estate.

- (i) Determine the design of life insurance contracts to be marketed in India and appropriate methods and bases for pricing them.
- (j) Describe the management of with profits business, including:
- the calculation and use of asset shares
  - appropriate ways of determining surplus distribution policy
  - the determination of discontinuance and alteration terms
- (k) Describe how unit pricing, in respect of the internal unit-linked funds of an Indian life insurance company, can be a source of risk.
- (l) Describe the principles of unit pricing in respect of the internal unit-linked funds of Indian life insurance companies.
- (m) Describe the principles behind the determination of discontinuance terms for life insurance contracts and:
- Determine appropriate methods and bases for varying the non-linked life insurance contracts of Indian life insurance companies on terms that are not guaranteed.
  - Determine appropriate methods and bases for varying unit linked or index linked life insurance contracts of Indian life insurance companies.
- (n) Describe the impact of credit and counterparty risks and how such risks might be assessed.
- (o) Determine, for the purpose of meeting regulatory requirements, appropriate methods and bases for valuing the liabilities of an Indian life insurance company, taking account of the nature of the assets.
- (p) Determine methods and appropriate bases for assessing the on-going solvency of an Indian life insurance company, bearing in mind the capital requirements of the company.
- (q) Determine appropriate methods and bases for the purpose of assessing the profitability of the existing business of an Indian life insurance company.
- (r) Describe the principles behind managing capital, having regard to the (sometimes conflicting) interests of policyholders and shareholders with regard to the estate, in the following contexts:
- open funds
  - closed funds
  - inherited estate
  - transfers of funds (within company, within group of companies, across companies, under mergers/acquisitions, de-mutualisations)
- (s) Describe the principles of asset-liability management, including stochastic approaches, and:
- analyse the asset-liability matching requirements of an Indian life insurance company
  - develop appropriate strategies.
- (t) Analyse the reinsurance and underwriting requirements of an Indian life insurance company for the purpose of the efficient management of the business.
- (u) Carry out an analysis of surplus, on either a supervisory or a realistic basis, in respect of an Indian life insurance company and use the results to reassess the design of the company's contracts or actuarial bases.

(v) Carry out an analysis of the change in the shareholder value of a proprietary Indian life insurance company and use the results to reassess the design of the company's contracts or actuarial bases.

**Study Material for Subject SA2:**

**A - Reading Material by Actuarial Education Co: 2017 Examinations Course Notes**

Chapters 1, 2, 15-17, 20-21, 23, 24-26 as found in 2017 ActEd course material.

Chapter 3 - UK general business environment Except Section 2 and 3 (Material to be supplemented to cover the distribution framework in India covering individual agents, corporate agents, bancassurance, brokers, direct marketing, online distribution)

Chapter 4 - UK contract and trust law - Substitute with Indian equivalent including the Indian Redressal of Public Grievances Rules, 1998 and IRDA (Protection of Policyholders' Interests) Regulations, 2002.

Chapter 5 - Policyholder tax - substitute with Indian position

Chapter 6 & 7 - Life company tax (1) and (2) - substitute with Indian position

Chapter 8 – Tax allowance in unit pricing: Omit

Chapter 9 & 10 - UK regulatory environment (1) and (2): Omit

Chapter 11 - Solvency reporting - substitute with Indian Regulations

Chapter 12 - Valuation of assets / liabilities / solvency margin – supplemented with relevant Indian Regulations

Chapter 13 – Professional standards and guidance – substitute with applicable Indian standards and guidance

Chapter 14 – Treating customers fairly - substitute with Indian position

Chapter 18 - Profit reporting and Chapter 19– Profit reporting – embedded value - substitute UK specific material for profit reporting with that under IRDA regulations

Chapter 22 – Management of UK with-profits funds – supplement with the Indian scenario

In addition, apart from other natural linkages to ST-2 subject, students are also specifically expected to demonstrate knowledge of areas of unit pricing, reinsurance, underwriting, surrender values and alterations as outlined in ST-2.

## B - Core Reading Material for Subject SA2:

### 1. Insurance Act 1938 (and Insurance Laws (Amendment) Act 2015) –

- 1(i): Section 13
- 1(ii): Section 22
- 1(iii): Sections 27, 27a, 27c
- 1(iv): Section 35
- 1(v): Sections 40, 40a, 40b
- 1(vi): Section 41
- 1(vii): Section 49
- 1(viii): Section 52
- 1(ix): Sections 55, 56 1(x):  
Sections 64V, 64VA 1(xi):  
Section 112
- 1 (xii): Section 113

### 2. Income Tax Act 1961

- 2(i): Life office Taxation

Section	Detail
44	Computation of Profits and gains of insurance business: Profits and gains of insurance business shall be computed as per First Schedule. Annual average surplus arrived by adjusting the surplus or deficit disclosed by the actuarial valuation as per Insurance Act, 1938 (4 of 1938)
115B	Tax rate: Tax on profits & gains of life insurance business @ 12.5%
115O	Dividend Distribution Tax
10(34)	Dividend Income: Any income by way of Dividends referred in section 115O is exempt
10(23AAB)	Pension Income exempt : Any income of fund under pension scheme is exempt

## 2 (ii): Policyholder Taxation:

The candidate is expected to have knowledge of latest provisions at the time of examinations

Section	Detail
80C	Life insurance premium: Deduction in respect of life insurance premium, immediate annuity policy premium
80CCC	Pension products: Deduction in respect of contribution to certain pension funds
80CCE	Aggregate deduction under section 80C, 80CCC and 80CCD(1)
80D	Health insurance premium: Deduction in respect of health insurance premium
17(2)(vii)	Employer contribution to superannuation fund
10(10)	Gratuity received by an employee on his retirement under group gratuity product may be exempt
10(10A)	Commutation of pension is exempt
10(10D)	Sum received under life insurance policy is exempt subject to some conditions
10(13)	Any payment from superannuation fund is exempt on death, etc. under Group superannuation product

## 2(iii): Note on 'Taxation of Life Insurance business – Some Issues' by S P Subhedar

### 3. IRDA Regulations and Circulars:

3(1): IRDA (Appointed Actuary) Regulations and First Amendment, 2013 3(2):

IRDA (Actuarial Abstract and Report) Regulations 2013

3(3): Circular dated August 2002 from IRDA – Appointed Actuary's Annual Report

3(4): IRDA (Preparation of Financial Statements and Auditors' Report of Insurance Companies) Regulations, 2002

3(5): IRDA (Protection of Policyholders' Interests) Regulations 2002

3(6): IRDA (Protection of Policyholders' Interests) (Amendment) Regulations 2002

3(7): IRDA (Assets, Liabilities and Solvency Margin of Insurers) Regulations 2016

3(8): Redressal of Public Grievances Rules, 1998

3(9): Insurance Act, 1938 as amended by Insurance (Amendment) Act, 2002

and Insurance Laws (Amendment) Act 2015

- 3(10): IRDA (Distribution of Surplus) Regulations 2002
- 3(11): IRDA (Insurance Advertisements and Disclosure) Regulations, 2000 and amendments thereto in 2010
- 3(12): IRDA (Registration of Indian Insurance Companies) Regulations 2000 and amendments thereto in 2003 and 2008
- 3(13): IRDA (Insurance Brokers ) Regulations, 2002 and amendments thereto in 2007 and 2013
- 3(14): IRDA(Licensing of Corporate Agents Corporate Agents) Regulations, 2002 and amendments thereto in 2015
- 3(15): IRDA circular on benefit illustrations (January 2008) for unit linked products regarding disclosure of charges and customized illustrations
- 3(16): IRDA (Issuance of Capital by Life Insurance Companies) Regulations, 2015
- 3(17): IRDA Circular on ALM and Stress Testing, 2012
- 3(18): IRDA Scheme of Amalgamation and Transfer of life Insurance Business, 2013
- 3(19): IRDA Life Insurance-Reinsurance Regulations, 2013
- 3(20): IRDA Health Insurance regulations, 2013 and First Amendment 2014
  
- 3(21): IRDA Linked Insurance products, Regulations, 2013 3(22):  
IRDA Non-Linked Insurance products, Regulations, 2013
- 3(23): IRDA, Investment Regulations, 2000, and subsequent amendments, 2001, 2002, 2004, 2008, 2013 and 2016
- 3(24): Obligations of Insurers to Rural and Social Sectors, 2002 and subsequent amendments in 2015
- 3(25): Circulars on Economic Capital; Ref: IRDA/CIR/LIF/049/3/2010, dated 11 March, 2010 and 27th December, 2010
- 3(26): IRDA Circular on Guidelines on Interest Rate Derivatives; Ref: IRDA/F&I/INV/CIR/138/06/2014
- 3 (27) IRDA (Micro insurance) Regulations, 2005
- 3(28): IRDA (Expenses of management of insurers transacting life insurance business) Regulations 2016
- 3(29): IRDA (Other forms of capital) Regulations 2015



#### **4. Guidance notes, APS Published by the Institute of Actuaries of India and reports:**

- 4(i): IAI working group report on MCEV and economic capital for Life insurance industry in India
- 4(ii): APS 1 - Appointed Actuary and Life Insurance Business
- 4(iii): APS 2 - Additional Guidance for Appointed Actuaries and other Actuaries involved in Life Insurance
- 4(iv): APS 3 - Financial Condition Report
- 4(v): APS 4 - Peer Review and the Appointed Actuary in Life Insurance
- 4(vi): APS 5 - Appointed Actuary and Principles of Life Insurance Policy Illustrations
- 4(vii): APS 7 - Appointed Actuary (AA) and Principles for determining Margins for Adverse Deviation (MAD) in Life Insurance liabilities
- 4(viii): APS 10- Determination of Embedded Value of Life Insurance Companies incorporated in India and regulated by the IRDA for the purpose of Initial Public offering (IPO).
- 4(ix): GN6- Management of Participating Life Insurance Business with Reference to Distribution of Surplus
- 4(x): GN22- Reserving for Guarantees in Life Assurance Business

**“Students are also expected to be aware of any new APS/GNs issued by IAI or any new regulations issued by IRDA during the year 2016 as some of the questions may have reference to these”**

## C - Recommended Additional Reading Material:

Note: The following material is suggested as additional reading so as to assist the student to understand the core reading material better. Reading these papers will help the students to understand the subject better and to demonstrate deeper understanding of the subject in their answer. *Please note that questions will not be asked directly from the Recommended Additional Reading Material.*

1. British Actuarial Journal – Vol. 1, Part 4, No. 4 October 1995: Asset shares and their use in financial management of a with profits funds by P D Needleman, FIA and T A Roff, FIA – Page No. 603 to 670.
2. British Actuarial Journal – Vol. 2, Part 3, No. 8 August 1996: An Alternative to the Net Premium Valuation method for statutory Reporting by P G Scott, FIA, S F Elliott, FIA, L J Grey, FFA, T W Hewitson, FFA, D J Lechmere, FIA, D Lewis, FIA and P D Needleman, FIA – Page No. 527 to 585.
3. Actuarial Investigations of Life Assurance Offices in India – a Retrospective Review By – R M Mehta, FIA, FASI.
4. Fin Re SIAS Paper 5 October, 1993
5. Realistic Reporting of Life Insurance Company Policy Liabilities and Profits: Developments in Anglo American Countries JIS Vol. 121 Part II – 1994
6. Modern Valuation Techniques SIAS paper 6 February 2001
7. Getting to Grips with Fair Value SIAS paper 5 March, 2002
8. Dynamic Solvency Testing SIAS Paper 5 March, 1997
9. Asset Liability Management in the Life Insurance Industry LOMA paper 1993
10. Profit, Capital and Value in a Proprietary Life assurance Company JIA Vol. 121 Part II – 1994.
11. Building a Credible Life Office Model SIAS Paper 1998
12. Demystifying Capital management in the Life Insurance Industry SIAS paper 10 October 2000
13. Summary and Comparison of Approaches Used to Measure Life Office Values SIAS Paper 16 October 2001.
14. Insurance Company Mergers and Acquisitions SIAS paper 15 February, 2000