INSTITUTE OF ACTUARIES OF INDIA

EXAMINATIONS

November 2025

Subject SA2 – Life Insurance

Time allowed: 3 Hours 15 Minutes

Total Marks: 100

Q. 1) An Indian life insurance company, writing majorly all lines of business, is working on its business plan projections for the next three years. The plan highlights significant capital requirements to support its ambitious growth and expansion strategy. Historically, the company has relied on a combination of shareholder equity infusions and retained earnings to meet its capital needs.

One of the options explored for meeting capital requirement is to raise subordinated debt of Rs. 500 Crore.

i) Discuss the merits and demerits of raising capital through Subordinated Debt compared to Shareholder Equity. (6)

ii) List down the regulatory criteria and conditions applicable only to raising subordinated debt for life insurers in India. (8)

iii) Discuss the impact of raising subordinated debt on the Embedded value and Solvency position of the company; both immediate and over the sub-debt period. (8)

iv) Discuss alternative ways of raising the capital. (4)

v) Suggest strategic alterations the company can make to its business plan if raising additional capital is not a viable option. (12)

[38]

Q. 2) A life insurance company operating in India, primarily selling participating life, non-participating annuity and unit-linked life business. Currently, 30% of the backing assets for participating life and non-par annuity business are invested in equities. For unit-linked business, majority of the funds are also equity-backed.

The Chief Risk Officer (CRO) of the company has expressed concern regarding equity market risk.

i) Discuss the impact of a sudden fall in equity markets on policyholders' returns and shareholders' value (both EV and solvency) across these product lines:

a) Participating Business (6)

b) Unit linked Business (5)

The CRO has proposed to establish a comprehensive risk framework to manage equity risk within the organization.

ii) Discuss the key strategies for managing equity investment risk that should be incorporated into the company's risk framework. (10)

[21]

Q. 3) The recent product regulations have introduced 'variable annuity payout option with a minimum guaranteed annuity amount' in the annuity product category. You are part of the product development team of a life insurance company that is evaluating the launch of such an option.

i) List down the conditions for the 'variable annuity payout option' as per the regulations. (7)

The product development team proposes a benchmark linked Variable Immediate Annuity product with a Return of Premium (ROP) on death feature. The annuity payouts vary on a quarterly basis, based on a defined formula that links the payout to a benchmark value.

The benchmark-based formula comprises two components:

- A minimum guaranteed annuity, set at 70% of the annuity rate applicable under the corresponding non-variable annuity product (Guaranteed Annuity with ROP), as determined at policy inception.
- A variable annuity component, calculated as 30% of the initial premium multiplied by the Nifty 50 return for each quarter, net of a 1% annualized charge. The adjusted return is subject to a floor of 2% and a cap of 20% on an annualized basis, ensuring both downside protection and a reasonable cap on upside participation.

This benchmarked linked structure enables policyholders to benefit from equity market-linked returns while maintaining a stable income floor.

ii) Identify the key risk exposures arising from the above product structure and discuss possible approaches to mitigate those. (14)

iii) Identify the features of 'such a benchmark linked product as proposed above' and compare the same with following product categories in terms of structure, returns, transparency and surplus sharing:

- Traditional Participating
- Unit-linked
- Index linked

[3 marks for identifying the key features of benchmark linked product and 3 marks for comparing against each product category] (12)

[33]

Q. 4) The Goods and Service Tax (GST) Council of India has announced an exemption of GST on individual life and health insurance products. Previously, these insurance products attracted GST, which was added to the premium (in case of non-linked business) and charges (in case of unit-linked business) paid by policyholders. With the exemption, policyholders now pay only the base premium. However, insurers will no longer be able to claim Input Tax Credit on input services like commissions and administrative expenses. This change has significant implications for various stakeholders in the insurance ecosystem.

i) Discuss the implications of this regulatory change on the following stakeholders:

a) Shareholders (2)

b) Distributors (2)

c) Policyholders (2)

d) Regulator / Government (2)

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