INSTITUTE OF ACTUARIES OF INDIA

EXAMINATIONS

November 2026

SA2 - Life Insurance

Time allowed: 3 Hours 15 Minutes

Total Marks: 100

Q.1) A large life insurance company that has been operating in India for several years offers products across all major lines of business. The company is planning to introduce "over the counter basic pure term insurance product" targeted at populations residing in Gram Panchayats allotted to the company for meeting its Rural and Social sector obligations.

An assessment of the geographical distribution of these Gram Panchayats indicates that a significant proportion are in hilly and coastal regions. Further study reveals that the Gram Panchayats in the hilly regions are regularly affected by landslides, while those located in the coastal regions are frequently exposed to floods. Consequently, both regions are highly prone to natural disasters.

The Pricing Actuary was of the opinion that the product, despite having same features, should be priced differently for Gram Panchayats located in hilly regions, coastal regions, and other parts of the country. However, the marketing manager believes that same premium rates should be offered across all regions.

i) List and explain any eight "Principles of Design and Pricing of Insurance Products" as per IRDAI (Insurance Products) Regulations, 2024. **[8]**

ii) Explain with reasons why the pricing for the pure term insurance product may vary across coastal regions and hilly regions. **[9]**

The Insurer's solvency relating to both participating and non-participating business is currently being supported by the Fund for Future Appropriation (FFA). The company has ambitious expansion and growth plans and does not intend to infuse any additional capital.

iii) Explain the concept of FFA and its role within a life insurance company. Discuss the major concerns associated with the proposal and explain its potential impact on with-profits policyholders. **[12]**

The company's growth strategy also includes establishing an International Financial Service Centre Insurance Office (IIO) at IFSC. Insurers in India are required to satisfy the eligibility criteria prescribed by the IRDAI before setting up a foreign branch office or IIO at IFSC.

iv) List the eligibility criteria for establishing a branch office (IIO) at IFSC as per IRDAI (Protection of Policyholders' Interests, Operations and Allied Matters of Insurers) Regulations, 2024. Further discuss why the establishment of a foreign branch office requires approval of the Indian insurance regulator. **[4]**

Recently, the Insurer received a consultation paper on the life insurance industry which invited shareholder feedback. The consultation paper highlighted concerns relating to the following trends:

- A decline in the total number of in-force individual policies over recent years, along with broadly stagnant new business individual policies year on year;
- An increase in Expenses of Management (EOM) over recent years, including a significant increase in upfront distribution costs as a percentage of premium;
- Poor surrender values/cash values available to policyholders surrendering their policies during the first 5 years of the policy;
- An increase in mis-selling related grievances;

v) Discuss each of the four aspects independently and explain how each could impact the insurance sector. **[16]**

The actuary compared the Insurer's own experience with the observations contained in the consultation paper and concluded that the Insurer's experience was broadly consistent with the industry trends highlighted in the consultation paper. The CEO requested the actuary to prepare a strategy paper for presentation to the Board addressing all four concerns.

vi) For each of the four aspects identified in the consultation paper, list the analysis that should be performed and propose appropriate strategies to address the concern. **[16]**

[65 Marks]

Q.2) A medium sized life insurance company plans to launch a non-participating, income-based endowment product under which a regular income is payable to the policyholder from the first year onwards, provided the life insured is alive.

Premiums are payable for a limited period of 5, 10 or 15 years, at the policyholder's choice. The policyholder may choose to receive the income stream for a period of 10, 20, 30 or 40 years, starting from the first policy year.

There is no maturity benefit payable at the end of the policy term. The product provides a death benefit and surrender value as per the regulations.

i) Discuss the various risks to which the insurer is exposed in the design, launch and ongoing management of such a product**.** **[12]**

The actuary was conducting the Analysis of surplus of the company's various lines of business. The newly appointed CEO asked the actuary the objectives of carrying out such an analysis.

ii) List down any six reasons for conducting the Analysis of Surplus. **[3]**

The Analysis of Statutory Surplus for the current year produced the following results (the figures below are the amounts in Rs. Cr):

S. No.	Item	Expected	Actual	Variance
1	Investment Returns	20	28	8
2	Persistency	13	15	2
3	Mortality	3	1	-2
4	Expenses	5	4	-1
5	Release of Zeroization	2	1	-1
6	New Business Strain	0	-15	-15
7	Change in valuation basis/method	0	4	4
8	Others	0	-1	-1
	Total	43	37	-6

iii) For each of the above items, explain briefly the expected surplus, the actual surplus and the possible reasons for variance observed. **[15]**

A separate Analysis of Surplus carried out in one of the previous years revealed a positive persistency surplus for a participating endowment product due to variation between actual experience and best estimate assumptions. Further investigation revealed policies converted to reduced paid up during the year resulted in a positive surplus.

However, when similar analysis was carried out for a non-participating endowment product, it was found that policies converting to reduced paid up during the year had resulted in a negative surplus due to variation between actual experience to best estimate assumptions.

iv) Explain the possible reasons for this difference in outcome between the participating and non-participating product. **[5]**

[35 Marks]

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