

INSTITUTE OF ACTUARIES OF INDIA

EXAMINATIONS

11th March 2022

Subject SP2 – Life Insurance

Time allowed: 3 Hours 30 Minutes (14.30 – 18.00 Hours)

Total Marks: 100

INSTRUCTIONS TO THE CANDIDATES

- 1. Please read the instructions to examinees sent along with hall ticket carefully and follow without exception.*
- 2. The answers are not expected to be any country or jurisdiction specific. However, if Examples/illustrations are required for any answer, the country or jurisdiction from which they are drawn should be mentioned.*
- 3. Mark allocations are shown in brackets.*

- Q.1) i)** List the contract design factors that may reduce capital requirement of a life insurance company. (2)
- ii)** A life insurance company currently sells only without profit term assurance business. All the contracts are sold only through its own sales force. During a recent analysis, the management observed that the sales through own sales force have been falling. The Marketing Director of the company has proposed to launch self-operated web-based service which allows for online sales, various other policy and claim services. This service is being launched in an anticipation of increased sales and also to attract customers with easy policy and claims services. The web-based services will facilitate the customers to perform the following actions:
- a. To obtain quotation
 - b. To purchase a policy
 - c. To raise grievance
 - d. To change mode of premium, nominee of the policy and other policy related services.
 - e. To register a claim

Discuss the factors the insurer may consider before launching the online sales channel by launching the web-based service. (16)

- iii)** After introduction of online sales channel through web-based services, the company performed analysis of sales from both the channels for two years. Analysis of sales revealed that the sale from own sales force channel is worsening. The life insurance company decided to close the own sales force channel for future sale of policies and to continue only web-based services.

Briefly discuss the implications of this decision on the overall business of the life insurance company. (5)
[23]

- Q. 2)** The regulator in the Country mandated all life insurers to offer various types of simple products, with an objective to provide products which are easy to understand to potential customers. Simple products are standardised and insurers have to use it without making any change to the product design, but are allowed to price the product, based on their experience.

In addition to these simple products, insurers are also allowed to offer various other type of products. For the simple product, insurers are required to offer sales literature containing key information about the product and also the premium rates.

- i)** List the key information that should be included in the sales literature for an individual Pure Term Insurance Product with return of premium. (4)
- ii)** Based on the mandate, insurers have introduced various types of simple products. Discuss the advantages and disadvantages of introducing simple products on the sale of other products of the company. (6)
[10]

- Q. 3)** A life insurance company, which is a market leader in the country, is operating for more than 30 years. It is selling various types of with profit and without profit endowment

assurance products mainly with regular premium. The company has been using the same set of surrender value factors since inception.

- i) State the reasons why a life insurance company should review its surrender value factors regularly. (3)
- ii) The company is planning to introduce for the first time single premium term assurance product. Discuss why surrender value needs to be offered under single premium term assurance product and suggest a suitable approach to calculate surrender values. (8)
- iii) Recently the market share of the company is falling as a result of low renewals of the policies. Discuss how the company could determine appropriate renewal assumption to use in profit test. (8)

[19]

Q. 4) A Life insurance company is writing immediate annuity business and has a large book of annuities in payment. No surrender values are offered on these annuities.

- i) Describe the risks that the life insurance company faces in writing this business. (13)
- ii) The insurer intends to offer surrender value on certain occasions like on incidence of critical illness. Discuss how the life insurance company should set the annuitant mortality assumption when setting supervisory reserves. (6)

However, the volume of business sold in recent years has been declining and the company is considering re-pricing its existing product to improve its competitiveness.

- iii) Discuss the possible reasons for the decline in the volume of business sold in recent years. (4)
- iv) Explain the possible alternatives that the company can consider to improve new business volumes instead of re-pricing the product. (7)

[30]

Q. 5) A life insurance company has been writing unit-linked contracts, and has a low level of free assets. It is planning to introduce single premium conventional with profit endowment assurances with a fixed term of ten years. Surplus under the with profit product will be distributed by additions to benefits method, through a combination of reversionary and terminal bonus.

- i) List the type of assets the company should consider on introduction of single premium conventional with profit endowment assurances. (2)
- ii) Discuss how the investment portfolio of the entire business would change on introduction of the single premium with profit product and the factors that the company should take into account when deciding on the types of assets. (12)
- iii) Why life insurance company may not offer terminal bonus for it's with profit products? (4)

[18]
