

INSTITUTE OF ACTUARIES OF INDIA

EXAMINATIONS

23rd March 2021

Subject SA1 – Health and Care

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 expected to be India Specific application for the syllabus and corresponding core reading. However, substantially the core reading material is still taken from material supplied by Actuarial Education Company which is meant for UK Fellowship examination. The core reading also contains some material which is India Specific, mostly the IRDA regulation. In view of this, it should be noted that focal point of answers is expected to be India Specific application. However, if application specific to any other country is quoted in the answer the candidate should answer the question with reference to Indian environment.*
- 3. Mark allocations are shown in brackets.*

Q .1) You are an Actuary working in a long term Health & Care Insurance Company in a developing Asian country. The major product in your portfolio is the long term Income Protection (IP) product covering mainly the supervisory employees working in the private sector of the country. The largest corporate group operating in the country, which employs about 50% of the private sector employees in the country, has approached you to buy a long term group Income Protection product covering all of their employees. The applicable policy term for an individual member is the normal retirement age less age-at-entry in to the scheme. The functioning of the corporate group is in mining, manufacturing, transport and construction sectors in the country, where it is the major operator.

- i)** What might be the reasons for offering such a group scheme to the employees? (3)
- ii)** Discuss the suitable Terms & Conditions, Underwriting and Claims management practices of the policy. (20)

It was decided to introduce two separate schemes, one covering the workers and the other covering the executives and managers of the corporate.

- iii)** Discuss the possible reasons for introducing two separate schemes indicating how these may lead to differences in operating the schemes. (7)

The HR director of the corporate group has asked your opinion about extending the coverage to the spouse of the employees, as an optional feature in the product.

- iv)** Discuss how the scheme may be extended to cover the spouses. Also describe advantages and disadvantages of this proposed extension of scheme to cover the spouse of the employees. (16)

The business is in place and it has achieved a high business level and moderate policy fund after launch. Your company has recently started using a stochastic asset model in its asset-liability modeling investigations to derive investment strategy.

- v)** Explain how asset-liability modeling may be used to determine an appropriate investment strategy for the group IP policyholder's fund. (12)
- [58]**

Q .2) The insurance regulator of a developing country ABC is planning to introduce the concept of 'virtual health insurer', in order to increase health insurance penetration in the country, which requires no or limited physical setup and the entire insurance process from sales to claims conducted online.

- i)** Suggest why introducing the 'virtual health insurer' could achieve the aims of the regulator. (6)
- ii)** What incentives that the regulator could offer to attract more players into the virtual model? And, outline the pros and cons of such incentives. (8)
- iii)** Outline the additional risks to the insurer of such a model compared to the traditional models and how they might be mitigated. (7)
- iv)** Outline the key features along with reasons of a product design that could fit better into the virtual model under each of the following categories.

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- a) Group Medical Expenses Reimbursement for in-patient hospitalization (5)
- b) Individual lumpsum Critical Illness (5)
- v) Explain the challenges that an actuary for the virtual health insurer, who holds a statutory role like the Appointed Actuary role in India, could face and suggest processes and controls that the actuary could implement to ensure the statutory responsibilities are met. (11)
- [42]
