

**INSTITUTE OF ACTUARIES OF INDIA**  
**EXAMINATIONS**

**21<sup>st</sup> May 2024**

**SP1 - Health and Care**

**Time allowed: 3 Hours 15 Minutes (09.30 – 12.45 Hours)**

**Total Marks: 100**

- Q. 1)**
- i)** Explain reasons why actuarial association issues professional guidance to actuaries advising Health and care insurance companies. (2)
  - ii)** Outline broad areas the guidance might cover. (2)
  - iii)** The morbidity tables published by actuarial associations are based on the combined experience of all the insurers in the industry participated in the analysis. Outline the factors that are likely to cause the published tables out of date so quickly. (3)  
[7]
- Q. 2)** A medium sized health insurance company X has been selling stand-alone critical illness (CI) for many years through all channels except online channel. Currently the company X charges level premium throughout the term of the contract and on diagnosis of CI the sum assured is paid in lumpsum and the contract terminates.  
Recently over the past 2 years the company is losing the market share due to increasing competition in the market.
- i)** Suggest ways in which the insurer can regain its market share. (5)
- The product management committee (PMC) has decided to reprice the product considering the most recent experience of the product and the appointed actuary has presented the repriced premium to the committee. Chief Marketing officer has commented that the repriced premium rates are not competitive.
- ii)** Discuss possible reasons for rates being non-competitive and actions open to the insurance company X to reduce the premium rates further. (8)  
[13]
- Q. 3)** A company is currently evaluating to have the CI with premium reviewability for every 5 years. So that the company X can alter the premium if the actual morbidity experience is different from originally expected.
- List the advantages and disadvantages of offering reviewable CI from perspective of,
- i)** The company X (8)
  - ii)** Policyholder (2)  
[10]
- Q. 4)** A long-term Health and care insurance company currently sells Long term care insurance (LTCI) and Income Protect (IP) under individual platform. The company sells through intermediaries, brokers & online channel. Currently the insurance company is not having Reinsurance.
- i)** Explain the main problem for health and care insurance policyholders caused by inflation, outlining the various ways in which product design can help overcome it. (3)
  - ii)** Explain why it is important to incorporate persistency into product pricing. (5)
  - iii)** Describe how a change of distribution channel might affect persistency rates. (3)

- iv) List the reasons why the company wish to monitor the morbidity experience. (5)
- v) List circumstances in which the insurer would have decided not to use reinsurance. (3)
- [19]**
- Q. 5)** The company is considering launching a new group Private Medical Insurance (PMI) product where premiums are paid annually, and cover is renewable each year. The insurer has asked reinsurance companies to provide quotation for this product.
- i) Detail the possible reasons why the insurer is seeking reinsurance for this product. (5)
- ii) List down the key exclusions for this product. (5)
- iii) Discuss the types of reserves to be kept under this product. (5)
- iv) Suggest the possible causes and consequences of poor-quality data in valuation. (7)
- [22]**
- Q. 6)** A health insurer sells large portfolio of individual private medical insurance (PMI) policies through tied agents only. In the recent years the company has sold high volumes and increased its market share in the industry. However, the portfolio has become loss making and chief risk officer would like to understand the reasons why the portfolio has been unprofitable over the year and asked the actuary to investigate.
- i) Detail the investigation and the analysis the actuary would perform to find out the reasons why the portfolio is unprofitable recently. (8)
- ii) Suggest possible reasons that may result out of the investigation which would have caused the actuals to be different from expected over the year. (7)
- iii) Suggest actions the insurer should consider in order to reduce the losses. (7)
- [22]**
- Q. 7)** A large insurance company has been selling Income Protection product from many years. Over recent years, there has been a significant increase in proportion of substandard risks and are subsequently offered special terms to such applications.
- List the ways in which the insurance company can apply special terms to an IP contract, and discuss which might be the most appropriate for an applicant with a pre-existing mental health condition. [7]

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