## **INSTITUTE OF ACTUARIES OF INDIA**

### **EXAMINATIONS**

# 19<sup>th</sup> September 2017 Subject SA1 – Health and Care Insurance Time allowed: Three hours (14.45\* - 18.00 Hours) Total Marks: 100

#### **INSTRUCTIONS TO THE CANDIDATES**

- 1. Please read the instructions inside the cover page of answer booklet and instructions to examinees sent along with hall ticket carefully and follow without exception.
- 2. \* You have 15 minutes at the start of the examination in which you are required to read the questions. You are strongly encouraged to use this time for reading only, but notes may be made. You then have three hours to complete the paper.
- 3. You must not start writing your answers in the answer sheet until instructed to do so by the supervisor.
- 4. 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.
- 5. Attempt all questions, beginning your answer to each question on a separate sheet.
- 6. Mark allocations are shown in brackets.
- 7. Please check if you have received complete Question Paper and no page is missing. If so, kindly get new set of Question Paper from the Invigilator.

#### AT THE END OF THE EXAMINATION

Please return your answer book and this question paper to the supervisor separately. You are not allowed to carry the question paper in any form with you.

**Q.1**) You are the newly appointed actuary for a leading health insurance company ABC Ltd. A health care provider approaches your company and proposes a bundled payment arrangement for Dental insurance Plans. Currently, no insurer in the market has such an arrangement in place.

A bundled payment arrangement is a system whereby the cost of some of the underlying components of a dental plan is fixed in advance. For instance, the cost of an extraction will comprise consultation, scanning, surgery, drugs and post-surgery expenses, all lumped into a fixed cost.

i) Discuss the various factors that the insurer will need to consider before adopting the bundled payment arrangement.

Another provider approaches ABC Ltd and proposes a full capitation arrangement for dental plans. Under a full capitation arrangement, the cost per member per annum is fixed in advance and renegotiated every year. Again, this is first of its kind in the market.

ii) Outline the advantages and disadvantages for the insurer of adopting the full capitation model.

In your introductory meeting, the marketing director of the ABC Ltd. has suggested that the company should consider implementing the following.

- iii) "Payment for Quality" payment to health care service providers should be linked to the quality of service that they deliver to the policyholders. Discuss the proposal.
- iv) "Chronic Disease Management (CDM)" a program offered to the policyholders that would improve the overall health and reduce claims. Outline how you would assess the cost savings of such a program.

External Consulting Actuary for ABC Ltd. has produced a report recently which showed that the reserves held by the insurer for its Group Health business were materially lower than what they should have been.

V)	Outline the possible reasons that could have led to the under-reserving	(6)
	CEO of the company has asked you to independently examine the adequacy of ving and advice any remedial action required.	
vi)	Describe in detail the process that you would follow in order to determine the adequacy of the reserving	(21)
vii)	Outline the next steps that you recommend, after your assessment, if	
	a) You agree with the Consulting actuary's report	(3)
	<b>b</b> ) You do not agree with the Consulting actuary's report	(3) [ <b>60</b> ]

(6)

(9)

(6)

(6)

- **Q.2**) i) Explain the main objective of the IRDAI (Expenses of Management of Insurers transacting General or Health Insurance business) Regulations, 2016.
  - **ii**) Outline the main provisions of the Regulations

(5)

(3)

(3)

A health insurance company started its operation in 2010. The company sells both individual and Group medical reimbursement products. Also, it sells lump sum Critical Illness product on standalone basis as well as a rider to the medical reimbursement products.

For the financial year 2017-18, the company has set the following targets:

Health Individual - INR 450 Crore

Health Group - INR 200 Crore

Critical Illness - INR 10 Crore

The board has also decided to bid for a government sponsored health insurance scheme with a premium target of INR 250 Crore.

The expense allowance was calculated as per the new IRDAI regulation and it was found that the actual expenses incurred are higher than that allowed under the regulation.

iii) In order to be within the allowable limit, the management decided to go for first dollar quota share reinsurance and use the ceding commission.

Discuss whether this would help compliance with regulation?

- iv) The company has also decided to manage claims in-house from 01<sup>st</sup> October 2017.
  State with reasons the impact it would have on the expense allowance. (2)
- v) The board of management has decided that they need to spend an additional INR 50 Crore for expanding their operations.
  - a) State the specific provisions related to exemption from complying with the regulation.
  - **b**) List the likely actions for non-compliance (4)
- vi) The board has also decided to carry out a detailed expense analysis.
  - a) State the main purpose of an expense analysis for a health insurer (3)
  - **b**) List five types of non-commission expenses (2)
  - c) Describe the process of expense analysis (7)

The outcome of the analysis suggested that the company should reduce fixed overhead expenses.

d) Discuss the probable causes and suggest possible ways of reducing the overhead (8)

[40]