

Actuarial Society of India

EXAMINATIONS

14th May 2007

Subject SA3 – General Insurance

Time allowed: Three Hours (09:45* – 13.00)

INSTRUCTIONS TO THE CANDIDATE

1. *Do not write your name anywhere on the answer scripts. You have to write only your Candidate Number on every answer script.*
2. **You have 15 minutes at the start of the examination in which to read the questions. You are strongly encouraged to use this time for reading only. But notes may be made. You have then three hours to complete the paper.*
3. *Mark allocations are shown in brackets.*
4. *You must not start writing your answers in the answer papers until instructed to do so by the Supervisor.*
5. *Attempt all questions, beginning your answer to each question on a separate sheet.*
6. *Fasten your answer sheets together in the numerical order of the questions.*
7. *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 are 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 same should answer the question with reference to Indian environment.*
8. *In addition to this paper you should have available Actuarial Tables and your own calculator.*

Professional Conduct:

“It is brought to your notice that in accordance with provisions contained in the Professional Conduct Standards, if any candidate is found copying or involved in any other form of malpractice, during or in connection with the examination, disciplinary action will be taken against the candidate which may include expulsion or suspension from the membership of ASI.”

Candidates are advised that a reasonable standard of handwriting legibility is expected by the examiners and that candidates may be penalized if undue effort is required by the examiners to interpret scripts.

AT THE END OF THE EXAMINATION
Hand in BOTH your answer script and this question paper to the supervisor separately.

- Q.1** Nava Bharat Insurance Company is a leading private sector general insurance company dealing in all lines of business with a number of regional offices and branches all over India. The business is procured through agents, brokers and bank-assurance. It rewards its underwriters on the basis of taxable profits on the line of business underwritten by the underwriters.

The underwriter for a particular class of business is responsible for Rupees 200 Crores of annual gross premiums. The business has remained stable for the last few years. The acquisition cost is 15% and reinsurance cost is 20% of premiums. The administrative cost has been reduced from 20% to 18% in the last 2 years. The taxable profit was 20 crores last year and has been directed to target for an increase of 25% in profits. The mean duration to claims settlement is 5 years from policy inception.

The underwriter has sought your help as Actuary to help him in achieving the target. Discuss the choices open to him explaining the advantages and disadvantages of each choice? [50]

- Q.2.** You are an Actuary to a global excess loss reinsurance company operating in India. You are requested to prepare a note to the CEO of your company explaining your approach to rating the following type of risk, giving what type of data need to be collected and the problems that you may face in arriving at the reinsurance premium rate to be quoted:

A treaty covering individual Liability risks written by a small insurance company, with XL retention such that at least 15 claims would have occurred in each of the last five years. [20]

- Q.3** A large industrial firm, operating in India, has been expanding rapidly over the last five years, having trebled its output through automation. Whilst keeping almost constant number of employees, the number of manufacturing sites has increased by 50%. The company has been paying a substantial amount of money as insurance premium. The reported claims in the past have been very low.

The major areas are Motor, industrial fire, employers' liability and consequential loss where the premiums have been at standard tabular rates. Following the announcement regarding de-tariffing, the company has asked for reduction in premiums.

Describe the features of past experience that you would need to consider in advising on the insurance premiums.

You are required to consider Industrial Fire only [15]

- Q.4** You are a general insurance actuary, working for a large general insurer. Based on some press articles regarding possible health hazard from overuse of mobile phones, the CEO of the company has asked you to elaborate, *inter alia*, on the classes which might be affected and why?

The impact that such claims (and of any adjustment to the company's IBNR reserve) might have on the company's profits (both actual and reported) (3)

Discuss the points you would include in your reply (12)

[15]