

Actuarial Society of India

EXAMINATIONS

15th May 2006

Subject SA3 – General Insurance Specialist Applications

Time allowed: Three Hours (10.15*am – 1.30 pm)

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.

Q1) A big manufacturing Company employing more than thousand workers both in the factory and the office seeks your advice as risk manager to cover various risks. The company owns 200 hundred motor vehicles comprising cars for the executive, trucks and goods carrier for use in the factory. Give your report suggesting the various types of cover the company should take giving reasons. (10)

Q2) You are requested to calculate the premium rates for private motor car business for the next year. Till now the industry was under a tariff regime and your Company was in business for the last 4 years. Please indicate the data required and what investigations you will carry out before calculating the new rates. What are the constraints likely to arise in setting up the new rates? (40)

Q3) A General Insurance Company dealing in Commercial and personal lines of business is growing rapidly. The gross written premium income for the last three financial years is as follow:

F.Y.2003-2004 600 crores of Rupees
F.Y.2004-2005 800 crores of Rupees
F.Y.2005-2006 1000 crores of Rupees

The gross incurred loss ratio is 80% and the net incurred loss is 75% of the gross incurred claims. Due to heavy rains in July 2005, there were a number of claims resulting in an additional flood loss of Rs.450 crores and the Company could recover Rs.420 crores under its catastrophe cover. The catastrophe cover provided one reinstatement with full cost. Calculate the impact of the catastrophic loss on MCR (Minimum Solvency margin). The Company's Capital and reserves is Rs.150crores and MCR is calculated on premium basis at 20% and on claims basis at 30%. This is further reduced by a factor equal to net incurred divided by gross inurred claims but in any case not less than 0.70.

- Briefly indicate the impact of the flood loss on reinsurance, claims and underwriting.
- Describe the different ways of treating large losses in the claim triangulation for the purpose of establishing reserves?
- State the advantages and disadvantages of each approach?

(50)