

# INSTITUTE OF ACTUARIES OF INDIA

## EXAMINATIONS

27<sup>th</sup> November 2019

Subject CP1 – Actuarial Practice  
(Paper A)

Time allowed: 3 Hours 15 Minutes (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. *Attempt all questions, beginning your answer to each question on a separate sheet.*
3. *Mark allocations are shown in brackets.*
4. *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)** HnW is a nutrition and health management company which offers a mobile application providing nutrition information, customised diets, diet consultation and health coaches to manage health activities. Outline the type of risks the company is exposed to. [6]
- Q. 2)** A high net worth individual has approached you for advice. He is planning to buy pieces of art by an artist whose work has received rave reviews in the last few years. Discuss the suitability of the investment for this investor. [6]
- Q. 3)**
- i)** Discuss the objectives of doing Asset liability management for a funded retirement benefit scheme? (5)
  - ii)** What could be the consequences of asset liability mismatch? (4)
- [9]
- Q. 4)** A small general insurer primarily writes Marine Cargo and Hull business.
- i)** Discuss this general insurer's re-insurance needs. (4)
- The company is looking to boost its solvency position. One of the options the CFO has proposed is "Fin Re".
- ii)** Define Fin Re. (1)
  - iii)** Explain how Fin Re arrangement involving a contingent loan from reinsurer could help the company in its endeavour to improve its solvency position. (4)
- [9]
- Q. 5)** A large democratic developing country has recently experienced sustained levels of economic growth, giving rise to growth in capital markets, private enterprise and commercial sectors. However, the country's infrastructure is outdated and may constrain future growth. The Government's intention is to link the country's main cities with highways to increase the economic activities.
- i)** Evaluate the various means the Government could use to fund this project. (6)
  - ii)** Specify the major risks that Government may face in executing this project. (6)
- [12]
- Q. 6)** A developing country has opened up the insurance sector. However, after five years of opening up the market, it is not well regulated and there are many complaints of market misconduct and companies defaulting on payments to policyholders.
- The Government is considering establishing a full-fledged regulator for the insurance market having seen the irregularities.
- i)** State the four principal aims of regulation of insurance companies. (2)

- ii)** Suggest ways in which each of these aims might typically be met in practice especially in the context of general insurance industry. (10)  
[12]
- Q. 7)** Considering the condition of elderly and the high medical inflation rate, the Government of a developing country, is planning to come up with special tax incentives for insurance companies selling Long-Term Care Products and purchasers of such products.
- i)** Explain the benefits that are typically offered under a Long term care product. (4)
- ii)** Discuss key factors an insurance company should consider while designing and pricing the product? (9)  
[13]
- Q. 8)** A large life insurance company writing non-linked business through direct sales and bank partnerships is planning to do annual mortality experience analysis.
- i)** Explain how the mortality analysis should be performed. (6)
- ii)** Discuss the factors impacting mortality experience of a term insurance product versus endowment product? (4)
- iii)** List the rating factors that could be used while pricing a term product. (4)  
[14]
- Q. 9)** ACER Construction Limited is a large company with more than 80,000 employees. The Company is providing healthcare benefits to employees covering both inpatient and outpatient medical expenses of the employees and their dependents. The Scheme is operated on a “Pay as you Go basis”. It has been observed over the last few years that claims costs are highly volatile.
- i)** Briefly discuss the probable reasons for the volatility of claim costs. (7)
- ii)** Discuss possible mitigation techniques available with the company’s management. (5)
- iii)** Discuss which form of insurance cover will be appropriate to buy from the market. (7)  
[19]

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