INSTITUTE OF ACTUARIES OF INDIA

EXAMINATIONS

May 2025

CP1B - Actuarial Practice

Time allowed: 3 Hours 15 Minutes

Total Marks: 100

Q.1) A large well established general insurance company operates in a developed country. Their suite of products includes motor, medical expenses, property and other casualty lines.

The company is entering a new market in a developing neighbouring country that has a very nascent insurance market and low average national per capita income.

a) What could be the rationale behind this company entering this new market? (2)

b) Discuss why the company may not achieve its target in the developing country? (2)

c) One year down the line, the company wants to review its experience. What caution would you suggest in this review exercise? (5)

In the travel insurance space, the company offers a basic cover during the trip for accidents, illness, baggage loss, loss of travel documents, trip delays and cancellations. The policy is a pre-packaged combination of all of the above and the customer cannot customize individual covers. The sum insured, however, can be selected by the customer. These travel policies are sold directly as well as through aggregators, travel agents, airlines & cruise operators.

d) List the features of travel insurance that differ from other general insurance products. (10)

e) Why could be the rationale to sell "pre-packaged combinations" rather than customizable travel insurance? (5)

f) Explain the challenges in pricing and reserving for travel insurance. (12)

The company also has plans to foray into another developed country by launching some new and niche products. One of them is for event organisers specialising in golf tournaments. A golf course normally has 18 holes and its usually very rare to hit the ball in a hole in one shot. The event organisers have chosen a hole that is roughly 140 yards, and needs on average 5 shots to reach from the start point of the course as the designated hole for the event. The winner of the contest is any golfer who hits the ball into this designated hole in one shot. The prize they have determined for this is an expensive car. For this highly publicised

event, the organisers are considering taking out insurance from the company. The first golfer who achieves this and wins the car, the company will pay the price of the car (make and model pre-agreed between the event organisers and insurance company).

g) Should the company go ahead with this product? (5)

h) What information would you need to price this cover? (4)

i) Explain the approach to price this product. (10)

j) The organisers have provided information of prior events. The events had the same rules, but different players, different target holes from the starting point and different prizes. How would you alter your pricing approach in this case? (5)

[60 Marks]

Q2. Due to increasing ESG awareness among general population, many countries have begun to introduce financial instruments that help promote sustainability. Governments and international bodies are working on developing standards and regulations to suit these new products entering financial markets. One such instrument is the green bond. Green bonds are bonds that are issued to raise finances to fund green/ environment friendly projects. They function like traditional bonds. Investors purchase bonds, receive coupons for a agreed period of time and then at maturity they receive the capital invested. The only difference is that the money raised through green bonds should be invested in projects that promote sustainability. The coupons and capital repayment are paid from the revenue these projects generate.

a) Identify potential issuers and investors in such green bonds. (5)

b) What could be the motivation for investors to buy these green bonds? (5)

In a developing country, the regulations have recently begun to allow issue of "green bonds" in the local currency. There are four states in this country North, East, West and South. A life insurance company in the country is exploring options for investment and is considering green bonds. This company is a multinational, and its global policy dictates that it should invest in climate friendly investments to support their ESG goals.

c) Why would it be suitable for the life insurance company to invest in green bonds? (5)

The CFO is of the opinion that investing in green bonds is not a wise choice at this point in time when these bonds are just beginning to be issued in the country. The alternative he is suggesting are equity in companies sustainable energy companies, or green infrastructure companies.

d) Explain why the CFO may be correct in his view? (5)

Since it is a new type of offering in this country, there are only a few options for the company to choose from.

Option A: North State in this country has one open bond issue for building eco-tourism facilities along its shoreline. These facilities would run on green energy, adopt environment friendly low wastage and recycling practices, and organise tourist expeditions and activities in the adjoining coastal strip and on the beach.

Option B: The central government of the country has one open bond issue for building green energy generation facilities in all the four states of the country. The majority of these will be biogas plants in the East and West states. West state is more rural and has lowest income per household in the country.

Option C: The country has one national airline which is also a prominent international operator. The airline has pledged to become net zero in the next 30 years and to this end; to reduce its carbon footprint for which it plans to raise funds via green bonds. The company plans to invest in low carbon infrastructure projects as well as in research and development of new airline technology to help make aviation sector more environmentally friendly.

e) Highlight the opportunities and risks that each of these options present for the life insurance company. (20)

[40 Marks]

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