# Non-Life Insurance Assignment 1

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Question & Answer

1. **The premium collected by an insurance company for the portion of a policy that has expired is called:**

***Ans.*** c) Earned Premium

2. **How is surplus reinsurance similar to quota share reinsurance?**

***Ans.*** a) The reinsurer and reinsured's share of the claim is proportionate

3. **An individual loss on an insured risk triggers the reinsurance coverage if it exceeds the deductible, is described as an excess of loss per risk treaty.**

***Ans.*** a) True

4. **Non-proportional reinsurance is usually expressed as a percentage of the risk a reinsurer is taking from the primary insurer.**

***Ans.*** b) False

5. **A reinsurance contract is a contract of indemnity**

***Ans.*** a) True

6. **What is reinsurance? Discuss the types of reinsurance with examples.**

***Ans.*** Reinsurance is insurance for insurance companies or the second level of insurance. When an insurer transfers a part of risk on a particular insurance by insuring it with another insurer in order to safeguard its interests and spread the due risk, it is known as reinsurance. It is insuring the same risk.

**Following are the types of reinsurance:**

a. **Non-Proportional Reinsurance:** the reinsurer is liable if the insurer's losses exceed a specified amount, known as the retention limit. As a result, the reinsurer does not have a proportional share in the insurer's premiums and losses.
   **It includes**:
   i. **With Individual Excess of Loss Reinsurance**: the insurer pays a claim in full up to a retention level, with any excess amount being borne by the reinsurer.
      **For example:** Suppose for a loss of $200,000, Company A decides to retain $100,000, and reinsure the balance amount with Company B with an upper limit of $80,000. So, A bears $100,000, with B being liable for $80,000. The remaining amount of $20,000 ($200,000 - $100,000 - $80,000) is borne as a balance against the upper limit by A. Hence, ultimately A bears $120,000 with B paying $80,000.

ii. **With Stop Loss Reinsurance:** the reinsurer is liable for the insured's losses incurred over a certain period a year that exceed a specified amount, determined by the aggregate claims of the whole portfolio.
**For Example:** If a one-year stop-loss reinsurance policy is purchased on a portfolio of insurance risks that earns $20M in premiums with a 75% stop-loss, the reinsurance company would pay for any additional or "excess" losses if that portfolio were to pay out over $15M in claims.

b. **Proportional Reinsurance**: the insurer and the reinsurer share premiums and the cost of all claims for each risk.
**It includes:**

i. **With Quota Share Reinsurance:** the reinsurer receives a fixed percentage of the premium and pays the corresponding percentage of claims
**For example**: Suppose Company A assumes a risk of $1,000,000 with a cession of 75% to Company B as a part of a quota share treaty. So, A will pay $250,000 (25% of $1,000,000) with B being liable for the remaining $750,000 (75% of $1,000,000).

ii. **With Surplus Reinsurance**: the reinsurer assumes a part of the risk in proportion to the amount that the insured value exceeds the retained line, up to a given limit.
**For example:** Suppose Company A, with a retention line of $25,000, enters into a surplus treaty with Company B for a policy issued at $150,000. So, A will be liable for $25,000 (16.67% of $150,000), and B will have to pay for the remaining 83.33% which is $1,25,000. If the policy issued was at $25,000 or below, then there would be no participation by B.

**7. How is stop loss reinsurance different from excess of loss reinsurance?**

**Ans.** Stop Loss Reinsurance does not work on an aggregate claim basis as it protects the insurer from suffering losses that exceed a certain limit over the course of year. The part paid by the reinsurer is determined by the aggregate claims of the whole portfolio. Excess of Loss Reinsurance works on an aggregate claim basis as the reinsurer will be required to make a payment when the claim amount for an individual policy exceeds the retention limit. It does not consider a group of policies.

**8. Discuss the various ratios used in profit analysis of reinsurance.**

**Ans.** Following are the four types of ratios:

i. **Net Loss Ratio**: represents the ratio of the net claims incurred to the net premium earned
Net Loss Ratio = Net Claims Earned / Net Earned Premiums

ii. **Net Expense Ratio**: represents the ratio of expenses incurred to the net written premium
Net Expense Ratio = Expenses / Net Written Premium

iii. **Net Commission Ratio**: represents the ratio of commissions to the net written premium
Net Commission Ratio = Commission / Net Written Premium

iv. **Net Combined Ratio**: it is the sum of the net loss ratio, the net expense ratio and the net commission ratio
Net Combined Ratio = Loss Ratio + Expense Ratio + Commission Ratio.

***Net Premiums Written*** *is the sum of premiums written by an insurance company over the course of a period of time, less premiums ceded to reinsurance companies, plus any reinsurance assumed.*

***Earned Premium*** *is the premium collected by an insurance company for the portion of a policy that has expired. In other words, the earned premium is what the insured party has paid for a portion of time in which the insurance policy was in effect, but has since expired.*

***Net Earned Premium*** *means the net written premium recorded during the experience period, plus the unearned premium reserves at the beginning of the period, minus the unearned premium reserves at the end of the period.*

**9. Write about the history of general insurance in India.**

**Ans.** The history of General Insurance can be dated back to the 17th Century; during the Industrial Revolution. General Insurance in India came as a British Occupation. So, Triton Insurance Company Ltd., in the year 1850 in Calcutta came to the introduced by the British. In the year 1907, Indian Mercantile Insurance Ltd, was the first company to manage all classes of general insurance business. Following the First World War, several foreign insurance companies started insurance business in India, capturing about 40 percent of the insurance market in India at the time of Independence. Insurance business in India is governed by the Insurance Act of 1938, which was amended later in 1969. However, in 1971, the government by an ordinance nationalized the general insurance business, under the General insurance Nationalization Act, 1972 to ensure orderly and healthy growth of the business. The then existing 107 companies were brought under the aegis of General Insurance Corporation (GIC) of India. The GIC was thus entrusted with the responsibility of superintending, controlling, and ensuring smooth and healthy conduct of the general insurance business in India along with its four subsidiaries in all the zones in India. In 1999, general insurance entered the private sector with the IRDA Act, prior to which a public sector monopoly had prevailed. The general insurance market existed as a tariffed market before 2007, which hampered flexibility in pricing and product innovations. Therefore the IRDA initiated the process of detariff in 2007-2008.

**10. Calculate combined ratio using the following information: expenses amount to \$8500; commission is \$5700, net claims incurred in the period amount to \$150000. The net written premium is \$50000 and net premium earned is \$75000.**

**Ans.**

Expenses = 8500
Commission = 5700
Net claims incurred in the period = 150000
Net Written Premium = 50000
Net Earned Premium = 75000

Net Loss Ratio = 150000/75000 = 2
Net Expense Ratio = 8500/50000 = 0.17
Net Commission Ratio = 5700/50000 = 0.114
**Net Combined Ratio** = 2 + 0.17 + 0.114 = **2.284**