STUDY4INSURANCE

This document provides a collection of memory-based questions previously encountered in the IC 81 Mathematical Basis of Life Assurance examination. Compiled from the recall of past candidates, these questions offer valuable insight into the types of problems, question patterns, and key topics frequently tested. Use this resource to supplement your preparation, test your understanding, and familiarize yourself with the exam format. Please note that these are based on memory and may not be exact replicas of actual exam questions.

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IC 81

1. To ensure a smooth progression of surrender values over time, from which sources might a life office derive these values?

2. Within financial planning, what is the most accurate way to differentiate between 'real needs' and 'perceived needs'?

3. How is the reserve for eliminating negative policy values typically created?

4. In which type of reinsurance arrangement is an individual risk specifically offered by the insurer to a reinsurer for acceptance or rejection?

5. Why might valuation bases differ from premium bases, even when the actual experience aligns with the assumptions used for premium calculation?

6. Why is the retrospective valuation method particularly suitable for Pure Endowment and Children's Deferred Assurance policies during their deferment periods?

7. What constitutes the 'act of ceding' within a reinsurance contract?

8. When an insurer distributes a portion of surplus from non-profit business to with-profit policies and includes this in the asset share calculation, what is this distributed portion referred to as?

9. What does the calculation 'expected present value of future benefits minus expected present value of future premiums' determine at any given time for a policy?

10. Given an asset share per survivor of Rs. 3266.02 at year 3 end, if 7% surrender at that point (receiving 90% of asset share as surrender value), what is the revised asset share per remaining policyholder at the end of year 3?

11. Calculate the net annual premium for a Rs. 10,000, 30-year endowment assurance policy issued to a life aged 30, with death benefit payable immediately, using the IALM 94-96 modified ultimate table at 6% interest.

12. Which party in an insurance contract agrees to compensate the other party against potential losses?

13. Who bears the ultimate responsibility for the full liability under contracts that have been reinsured?

14. Strategic Risk falls under which broader category of risk?

15. Initial capital strain represents the excess of which components over the initial asset share?

16. Calculate the asset share at the end of year 2 for a regular premium endowment policy (Premium: Rs. 1000 pa, SA: Rs. 15000) given the investment returns, mortality rates, expenses for 2009 & 2010, and a 0.3% pa yield reduction for capital charges in 2010.

17. Which of the following metrics is generally NOT used as a consistency check between successive actuarial valuations?

18. A decrease in an insurer's surplus can lead to various consequences. Which of the following is NOT a likely outcome?

19. What is a primary responsibility of an insurance regulator?

20. When calculating a certain value metric, an insurer's overhead expenses are typically included as a deduction. What is this metric?

21. How can bonuses be allocated under a unitized with-profit policy?

22. Which statement about proportional reinsurance is incorrect?

23. Under what circumstances can a policyholder typically access the fund value of their Unit Linked insurance policy?

24. Which of the following items is typically deducted when calculating or adjusting the asset share?

25. What type of risk encompasses losses arising from failures in internal processes, people, systems, or from external events affecting operations?

26. List the following products—Endowment Assurance, Term Assurance, and Pure Endowment Assurance—in ascending order based on their typical savings component.

27. What are the primary purposes for conducting actuarial valuations?

28. How is the initial capital strain CO calculated at time 0, given the initial premium P0 initial expenses E0, supervisory reserve R0, and required solvency margin S0?

29. What is the name of the document that outlines the terms of an insurance contract?

30. If an 11% Government of India security (face value Rs. 100) is bought for Rs. 110, what is the yield for the first year after receiving the interest payment?

31. A Double Endowment assurance policy is equivalent to the combination of which other insurance products?

32. What is the nature of the risk covered by insurance?

33. Which statement accurately describes a desirable characteristic of surrender values?

34. In a mutual insurance company, who is entitled to the full surplus generated?

35. To whom should surrender value scales aim to be fair?

36. Which type of insurance policy might be preferred by someone with average health seeking maximum protection for a lower premium outlay?

37. Where is the financial impact (profit or loss) from surrenders typically reflected for the remaining policies in the relevant cohort?

38. Which statement regarding the inclusion of margins in insurance premiums is inaccurate?

39. What type of bonus is typically paid out due to unique, non-recurring positive circumstances?

40. What is the primary distinction between unitized with-profit contracts and unit-linked contracts?

41. For which types of insurance products are surrenders typically unavailable?

42. What is the typical sign (positive, negative, zero) of the result from a Net Premium Valuation formula under standard conditions?

43. How does the policy value (reserve) of a typical term assurance policy behave over its duration?

44. The relationship between present value of benefits and present value of premiums is

45. The risk associated with the 'dominance of a single individual' within an organization falls under which category of risk?

46. For a 5-year term insurance on a 25-year-old machine (benefit 500,000 at breakdown, net premium 6643 payable annually), using the mortality model $l\_x = 100-x$ and $i=0.06$, what is the net premium reserve at the end of year 3?

47. How is the transfer of surplus to shareholders accounted for in the asset share calculation?

48. If a Term Assurance policy provides a 50 lakh cover today, what will be the approximate real value (purchasing power) of that cover after 10 years, assuming an average annual inflation rate of 6%?

49. Which statement regarding regulatory requirements for reinsurance arrangements in India is incorrect?

50. Which of the following, although sometimes called a bonus, is fundamentally not a distribution of surplus?

51. Which of the following risks is LEAST likely to be a primary general consideration when structuring a reinsurance contract (compared to the others listed)?

52. Which statement about quota share reinsurance is inaccurate?

53. If a customer accepts a guaranteed insurance quotation within the validity period (e.g., day 10 of 14), under which circumstance can the insurer still legally decline the risk?

54. How does the Life Fund typically relate to the value of an insurer's liabilities?

55. What is the definition of Operational Risk in an insurance context?

56. Calculate the gross single premium for an immediate annuity of Rs. 536.11 payable quarterly (15 years certain, then life) for a person aged 52, using LIC(a) 96-98 Ultimate table at 8%, with expense loadings of Rs. 15 per thousand single premium and 4% of each annuity payment.

57. Which statement about 'trading profit' in the context of insurance valuation and surplus distribution is inaccurate?

58. Which of these factors generally does NOT directly impact the future earnings potential of an insurer?

59. Consistency checks on premiums often involve comparing premiums across which variable?

60. Given a Death Strain at Risk (DSAR) of Rs. 1,522,476, a mortality rate (q) of 0.00283, and a mortality profit of Rs. 365, what was the actual death strain experienced?

61. When grouping policy data for valuation and investigation (historically using cards), which of the following was typically NOT a primary grouping criterion?

62. What term describes a non-guaranteed bonus paid out only upon policy termination (maturity, death, or sometimes surrender)?

63. Which statement accurately describes a reinsurance treaty?

64. Which statement accurately describes how surrender values are typically determined for unitized with-profit contracts?

65. What investment challenge do insurers face with long-term whole life policies, and why?

66. If a policyholder opts for the reduced paid-up nonforfeiture option, how is the policy's face amount adjusted?

67. If a policy previously thought to be lapsed or missing is found and re-included in valuation data, this adjustment is classified as what type of data movement?

68. What type of insurance product characteristics might someone with average health typically prefer?