



QP CODE: 24800579



24800579

Reg No :

Name :

INTEGRATED MSC DEGREE EXAMINATION, DECEMBER 2023

Sixth Semester

INTEGRATED MSC BASIC SCIENCE-STATISTICS

CORE - IST6CR04 - ACTUARIAL STATISTICS

2020 Admission Onwards

6D04EEB8

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

Weight 1 each.

1. Give 2 roles of insurance companies in economy.
2. What do you mean by Speculative risk?
3. What is meant by curtate future life time?
4. Briefly explain term life insurance.
5. Define m-thly annuity.
6. Briefly explain Continuous annuity certain.
7. Briefly explain m-thly whole life annuity immediate.
8. Define net premiums and gross premiums.
9. Define Equivalence principle premiums.
10. Briefly explain joint life status.

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

Weight 2 each.

11. Explain Actuarial science.
12. Explain Weibull law for human life length with graphs.
13. Find expected present value of the benefit to be paid at the end of the year of death.





14. Explain whole life annuity due.
15. Elaborate Fully continuous premiums
16. Elaborate Fully discrete premiums.
17. Explain true m-thly payment premiums.
18. Explain prospective reserve in Fully continuous reserve.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

Weight 5 each.

19. What is meant by select and ultimate life tables and how they are constructed?
20. Explain simple interest, compound interest, accumulation factor, force of interest and discount factor. Also Find the amount to which Rs.10,000/- will accumulate after 10 years if the rate of interest is a) 5% as the force of interest b) 5% as the effective rate of interest and c) 5% per annum payable quarterly.
21. Discuss different types of discrete life annuities.
22. Explain joint life status and last survivor status.

(2×5=10 weightage)

