

B.Sc. Degree Examinations - Even Semester 2021  
III Year VI Semester  
Actuarial Statistics

Max Marks: 75

Answer any Five questions (5 \* 5 = 25)

1. Derive the relationship between nominal and effective rate of interest.
2. Find the present value of an immediate annuity of Rs.600 p.a. payable half yearly for 20 years on the basis of the effective rate of 6% p.a.
3. write short notes on Redemption of loans
4. Explain natural, office and net premiums.
5. Describe retrospective and prospective policies.
6. A sinking fund is set up by uniform payments made at the end of each year, to provide a capital of Rs.3500/- at the end of 20 years, money in the fund accumulating at 10% p.a. What is the uniform payment required? What is the position of the fund at the end of 8 years?
7. A loan of Rs. 16,000/- is repayable by level instalment of principal and interest, payable yearly in arrears over 15 years. The rate of interest is 8% p.a. for the first 6 years and 7% p.a. thereafter. Calculate the level yearly instalment and interest contained in the first, second ninth and tenth instalment.