

ED-2762

B. A/B. Sc./B. Sc. B. Ed. (Part III)

EXAMINATION, 2021

MATHEMATICS

Paper Third (C)

(Application of Mathematics in Finance and Insurance)

Time : Three Hours

Maximum Marks : 50

Note : Attempt any *two* part from each question. All questions carry equal marks.

Unit—I

1. (a) Discuss the main decisions of financial management.
- (b) What do you mean by interest rate and discount rate ?
- (c) Explain speculation and gambling.

Unit—II

2. (a) What are differences between risk and uncertainty ?
- (b) What do you mean by Markowitz model ?
- (c) Discuss rate of return.

Unit—III

3. (a) What do you mean by Taylor's series ?
- (b) Explain Arbitrage theorem ?
- (c) Explain financial derivatives

Unit—IV

4. (a) How can we calculate premium of life insurance ?
- (b) What do you mean by chances of loss ?
- (c) Discuss of various types of life insurance.

Unit—V

5. (a) Explain the general insurance by using negative binomial distribution.
- (b) Discuss the compound aggregate claim model.
- (c) Explain the F-recursive and approximate formulae for F.