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.