

Roll No. ....

**Y – 3183**

**M.A./M.Sc. (Fourth Semester) EXAMINATION, May/June-2021**

**MATHEMATICS**

Paper – 404

**MATHEMATICS OF FINANCE AND INSURANCE**

*Time : Three Hours*

*Maximum Marks : 85*

*Minimum Pass Marks : 29*

**Note**—Attempt *all* questions.

**Unit-I**

1. Explain present value of an amount. If simple interest is Rs. 20400, then find out the principal amount for 3 months with 8% rate of amount interest. 17

**Unit-II**

2. Explain life insurance and valuing contingent payment. 17

**Unit-III**

3. Explain option valuation and types of option. 17

**Unit-IV**

4. State and prove Ito's lemma for stock price. 17

**Unit-V**

5. State and prove Black-Scholes equation. 17

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