

**HISTORY OF MATHEMATICS: EXAMINATION, 2013-14.**

**Section A: answer 5 questions out of 10; 10 marks each.**

Write brief historical accounts of *five* of the following:

- Q1. The Fundamental Theorem of Algebra.
- Q2. The wave equation.
- Q3. Mechanics up to (and including) Newton.
- Q4. The mathematics of length, area and volume.
- Q5. The abacus and its successors.
- Q6. The Platonic solids.
- Q7. The calculus of variations.
- Q8. The emergence of the decimal system.
- Q9. Projective geometry.
- Q10. The mathematics of heat.

**Section B: answer 2 questions out of 4; 25 marks each.**

Write historical accounts of *two* of the following:

- Q1. The connections between mathematics and astronomy, from ancient to modern times.
- Q2. The development of the real number system  $\mathbb{R}$ .
- Q3. The development of probability theory.
- Q4. The development of linear algebra.

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