

HISTORY OF MATHEMATICS: MOCK EXAMINATION, 2013.

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

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

- Q1. The mathematics of the rainbow.
- Q2. The formula of spherical excess.
- Q3. The pentagram.
- Q4. The Fundamental Theorem of Arithmetic.
- Q5. The electromagnetic theory of light.
- Q6. The mathematics of perspective.
- Q7. The Prime Number Theorem.
- Q8. The heliocentric theory.
- Q9. The Archimedean solids.
- Q10. Centres of learning.

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

Write historical accounts of *two* of the following:

- Q1. The number π .
- Q2. Conics and orbits, with reference to the work of Kepler and Newton.
- Q3. The normal distribution, the Central Limit Theorem and the Method of Least Squares.
- Q4. Solution of polynomial equations.

N. H. Bingham