

EXAMINATION FOR INTERNAL STUDENTS

For The Following Qualifications:-

B.Sc. M.Sci.

Mathematics C382: History Of Mathematics

COURSE CODE : **MATHC382**

UNIT VALUE : **0.50**

DATE : **29-MAY-03**

TIME : **10.00**

TIME ALLOWED : **2 Hours**

*All questions may be attempted but only marks obtained on the best **four** solutions will count.*

*The use of an electronic calculator is **not** permitted in this examination.*

Be careful to link your answers to appropriate exemplification.

1. What were the successes and failures of ancient arithmetic methods?

2. Archimedes is often called “the greatest mathematician of antiquity”. What do you think it means to say this? Can such a claim be justified in view of Archimedes’ comparative lack of technical influence on later mathematics?

3. In what ways (if any) were the calculi of Newton and Leibniz different from the work of their seventeenth century predecessors?

4. What was the change in attitude to the solution of polynomial equations from Scipio to Galois?

5. Write an essay on **ONE** of the following topics.
 - (a) The transmission of the mathematics of antiquity;
 - (b) Newton’s Principia;
 - (c) The importance of nineteenth century geometry;
 - (d) “Mathematics is all about problem-solving”. To what extent is this supported by the history of mathematics?