PREFACE

THIS volume contains everything published by Ramanujan except a few solutions of questions by other mathematicians printed in the *Journal of the Indian Mathematical Society,* and a certain amount of additional matter. Its publication has been made possible by the liberality of the University of Madras, the Royal Society, and Trinity College, Cambridge, each of which bodies has guaranteed a proportion of the expense of printing.

The editorial comments in Appendix I do not profess to be in any way systematic or exhaustive. We have merely put down such comments and references to the literature as occurred to us or were suggested to us by other mathematicians. In particular we are indebted to Prof. L. J. Mordell for a number of valuable suggestions.

We have also printed in Appendix II those parts of Ramanujan's letters from India which have not been printed before. It may seem that it would have been more natural to incorporate these in their proper places in the second *Notice,* but to do this would have expanded it unduly and destroyed its proportion, and the letters consist so largely of an enumeration of isolated theorems that they hardly suffer by division.

There is still a large mass of unpublished material. None of the contents of Ramanujan's notebooks has been printed, unless incorporated in later papers, except that one chapter, on generalised hypergeometric series, was analysed by Hardy* in the *Proceedings of the Cambridge Philosophical Society.* This chapter is sufficient to show that, while the notebooks are naturally unequal in quality, they contain much which should certainly be published. It would be a very formidable task to work through them systematically, select particular passages, and edit these with adequate comment, and it is impossible to print the notebooks as they stand without further monetary assistance. The singular quality of Ramanujan's work, and the romance which surrounds his career, encourage us to hope that this volume may enjoy sufficient success to make possible the publication of another.

* G. H. Hardy, "A chapter from Ramanujan's notebook", *Proc. Camb. Phil. Soc.,* xxi (1923), pp. 492–503.