4 March 1943

Dear Mr Iyer,

I am glad to hear that you have been interesting yourself in the Bipartitional Functions on which Sukhatme did such a good bit of work six or seven years ago.

With respect to $G_a$, I think you might do well to look up Burnside and Panton's "Theory of Equations", Chapter 12, for the typical problem of expressing any monomial symmetric function of the roots in terms explicitly of the coefficients of the equation is given by $G_a$. I see that Sukhatme does not draw attention to this, which seems a pity, though if he had attempted systematically to indicate the connexions of Bipartitional Functions with earlier algebraic work, it would greatly have interfered with the orderly presentation of the framework of results, which was the main business of his paper.

However, I should like to persuade you to interest yourself further in the matter with a view to recognising such connexions, for I am sure that an algebraic proof of 20 or 30 pages cannot be the best approach to the relationships which Sukhatme has noted down. In respect of $G_a(P,Q)$ there is something to be said for introducing the partitions $P',Q'$ complementary to $P$ and $Q$, and for expressing the
bipartitional distributions in plano corresponding with either \( P \) and \( Q \) or with \( P' \) and \( Q \).

With regard to the Ph.D. degree, I am afraid that there is no war concession waiving the requirement that an Internal Student must pursue a course of study in the University, whereas an External Student must first have obtained a degree in the University in the same faculty as that in which it is desired to proceed to the Ph.D.

I hope that all is going well with you and your colleagues in New Delhi.

Yours sincerely,