**Indian Journal**
**of Mathematics**
Volume 58, No. 2, 2016

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## CONTENTS



**Abstract:** Let $f$ be analytic in $D = \{z : |z| < 1\}$ with $f(z) = z + \sum_{n=2}^{\infty} a_n z^n$. We give sharp bounds for various coefficient functionals when $f$ is strongly starlike.



**Abstract:** In this article, we discuss the existence of $n$-tuple fixed points for an order preserving mapping in a preordered left $K$-complete quasi-pseudometric space. We also use the concept of left-weakly related mappings to prove the existence of common $n$-tuple fixed points for two and three mappings in the same space. The proved results generalize and extend some known results in the literature.



**Abstract:** In this paper we study bases of topological spaces which are closed under finite intersections and also under finite unions. Such collections can be regarded as a base for open sets or as a base for closed sets, resulting in usually different topological spaces. Some informative examples are presented and some separation axiom results are obtained, but our main interest here is in the category

**Abstract:** In this article, we establish the demiclosed principle, fixed point theorems, strong and $\Delta$-convergence theorems for general iteration scheme under the class of asymptotically nonexpansive type mappings in the framework of $CAT(0)$ spaces. Our results generalize several known results existing in the literature.



**Abstract:** In the pairwise normal bitopoloical spaces with non-$T_1$ topologies, this paper introduces results in measuring nearness of two finite sets via cardinality of intersection of their closures.



**Abstract:** In the paper we present a result on the completion of a generalized metric space uniquely up to an isometry. As a consequence we get a famous Hausdorff result for metric spaces, that is important both to theory and applications

**Abstract:** Let $R$ be a commutative ring with identity which is not an integral domain. An ideal $I$ of $R$ is called an annihilating ideal if there exists $r \in R \setminus \{0\}$ such that $Ir = (0)$. The sum-annihilating ideal graph is a simple undirected graph $\Omega(R)$, associated with $R$, as follows: the vertex set of $\Omega(R)$ is the set of all non-zero annihilating ideals of $R$, and two distinct vertices $I$, $J$ are adjacent if and only if $I + J$ is also an annihilating ideal of $R$. In this paper we first establish sharp bounds on domination number of the sum-annihilating ideal graph and then we characterize all commutative rings $R$ whose the sum-annihilating ideal graph $\Omega(R)$ have genus zero or one.



**Abstract:** We introduce a notion of being Hermitian for an element of a complete complex unital $lmc$-algebra to generalize the notion of self-adjointness in locally $C^*$-algebras. It is shown that if a Hermitian element is right (or left) invertible, then it is invertible. Additionally, a notion of being normal is introduced for an element and it is shown that if a normal element is right (or left) invertible, then it is invertible.

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