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and best approximation results for this newly defined class of maps are proved.

R. C. Dimri and N. S. Gariya

COINCIDENCES AND COMMON FIXED POINTS IN INTUITIONISTIC

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Abstract: In the present paper, first we prove a coincidence theorem for a family of mappings on an intuitionistic fuzzy metric space. We further establish a common fixed point theorem. Our results generalize and extend some of the well known results in metric and other spaces.

M. K. Aouf, A. Shamandy, A. O. Mostafa and S. M. Madian

NEIGHBORHOOD PROPERTIES FOR CERTAIN p -VALENT

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Abstract: In this paper we introduce and investigate two new subclasses of p -valent analytic functions of complex order defined by using new differential operator. Also we obtain coefficient estimates and consequent inclusion relationships involving the neighborhoods of the p -valently analytic functions.

R. Lavanya

INSENSITIZING CONTROLS FOR A SEMILINEAR HEAT EQUATION

WITH LINEAR MEMORY KERNEL STRUCTURE

507-529

Abstract: In this paper, we consider a semilinear heat equation with an integral term in a bounded domain Ω with partially known initial conditions. The insensitizing problem consists in finding a control function such that some functional of their state is locally insensitive to the perturbations of these initial and boundary data. Their existence is equivalent to the null controllability property for an associated cascade system. The function $f(p)$ is assumed to be

globally Lipschitz-continuous. The proof, involving global Carleman estimates and regularizing properties of the system, relies on the sharp study of those linear problems and appropriate fixed point arguments.

T. Tamizh Chelvam, Sivagnanam Mutharasu and I. Rani

DOMINATION IN GENERALIZED CIRCULANT GRAPHS

531-541

Abstract: A Cayley graph is a graph constructed out of a group and its generating set. In this paper, we define Generalized Circulant graphs and attempt to find dominating sets and independent dominating sets for the same. Actually we find the values of the domination number, independent domination number and total domination number for generalized circulant graphs. Also it is proved that certain generalized circulant graphs are excellent and in some other cases they are two excellent 2-excellent.

David E. Dobbs

WHEN DOES A RING EXTENSION OF A GOING-DOWN RING SATISFY
GOING-DOWN?

543-556

Abstract: If A is a going-down ring that is locally a domain and B is a commutative unital ring extension of A , then $A \subseteq B$ satisfies going-down if and only if the associated reduced ring of B is locally torsion-free. The assertion fails if one deletes the hypothesis that A is locally a domain. If, in addition, A is a weak Baer ring, the above conditions are equivalent to the associated reduced ring of B being a torsion-free A -module. Some characterizations of weak Baer going-down rings are also given.

J. P. KingTAYLOR SUMMABILITY AND PRESERVING x^2

557-571

Abstract: A version of the Taylor summability matrix is used to construct a sequence of positive linear operators $\{L_n\}$ with the property that

$$\lim_{n \rightarrow \infty} L_n(f)(x) = f(x)$$

for $f \in C[1, b]$. The operators then are modified to produce a sequence $\{L_n^*\}$ with the property that $L_n^*(e_2) = e_2$ for $e_2(x) = x^2$. Finally, some basic properties of this version of the Taylor matrix are presented.

C. Vetro, D. Gopal and M. ImdadCOMMON FIXED POINT THEOREMS FOR (ϕ, ψ) -WEAK
CONTRACTIONS IN FUZZY METRIC SPACES

573-590

Abstract: Motivated by Rhoades (Nonlinear Anal., 47(2001), 2683-2693), on the lines of Khan et al. (Bull. Aust. Math. Soc., 30(1984), 1-9) employing the idea of altering distances, we extend the notion of (ϕ, ψ) -weak contraction to fuzzy metric spaces and utilize the same to prove common fixed point theorems for four mappings in fuzzy metric spaces.

Ivor J. MaddoxTAUBERIAN THEOREMS AND THE M -TRANSFORM

591-598

Abstract: It is shown that the traditional Tauberian conditions employed for classical summability methods are ineffective for the recently introduced M -transform.

Vinod Kumar, Saurabh Porwal and Poonam Dixit

A NEW SUBCLASS OF HARMONIC UNIVALENT FUNCTIONS

DEFINED BY FRACTIONAL CALCULUS

599-613

Abstract: In this paper, authors introduce a new subclass $S_{H,\lambda}^*(\alpha, t)$ of S_H by using fractional calculus. We give univalence criteria and sufficient coefficient conditions for normalized harmonic functions belonging to the class $S_{H,\lambda}^*(\alpha, t)$, where $0 \leq \alpha < 1$, $0 \leq \lambda < 1$ and $0 \leq t \leq 1$. These coefficient conditions are also shown to be necessary for subclass $TS_{H,\lambda}^*(\alpha, t)$ of $S_{H,\lambda}^*(\alpha, t)$ in which h has negative and g has positive coefficients. This leads to extreme points, distortion bounds and radius of convexity. We also discuss a class preserving integral operator and show that the class studied in this paper is closed under convolution and convex combinations.