

CONTENTS

Special Invited Addresses

Diperfect Graphs	1
C. Berge	
Some new problems and results in Graph Theory and other branches of Combinatorial Mathematics	9
P. Erdős	
A form invariant multivariable polynomial representation of graphs	18
E.V. Krishnamurthy	
Some combinatorial applications of the new linear programming algorithm	33
L. Lovász and A. Schrijver	
In search of a complete invariant for graphs	42
K. Balasubramanian and K.R. Parthasarathy	
Affine triple systems	60
D.K. Ray-Chaudhuri	
Tables of two-graphs	70
F.C. Bussemaker, R.A. Mathon and J.J. Seidel	
Designs, adjacency multigraphs and embeddings : a survey	113
S.S. Shrikhande and N.M. Singhi	
On the adjugate of a symmetrical balanced incomplete block design with $\lambda = 1$.	133
G.A. Patwardhan and M.N. Vartak	

Contributed Papers

Characterization of potentially connected integer-pair sequences	153
Nirmala Achuthan	
Construction and combinatorial properties of othogonal arrays with variable number of symbols in rows	165
B. Adhikary and Premadhis Das	
Construction of group divisible rotatable designs	171
B. Adhikary and R. Panda	
Some path-length properties of graphs and digraphs	185
W.G. Bridges	
2-2 perfect graphic degree sequences	195
P.D. Chawathe	
Characterization of forcibly outerplanar graphic sequences	203
S.A. Choudum	

Characterization of potentially self-complementary, self-converse degree-pair sequences for digraphs	212
Prabir Das	
Set-reconstruction of chain sizes in a class of finite topologies	227
Shawpaw K. Das	
Characterization of forcibly bipartite self-complementary bipartitioned sequences	237
T. Gangopadhyay	
A graph theoretical recurrence formula for computing the characteristic polynomial of a matrix	261
M.K. Gill	
A note concerning Acharya's conjecture on a spectral measure of structural balance in a social system	266
M.K. Gill	
On permutation-generating strings and rosaries	272
Hansraj Gupta	
Enumeration of labelled digraphs and hypergraphs	276
Malati Hegde and M.R. Sridharan	
Analysis of a spanning tree enumeration algorithm	284
R. Jayakumar and K. Thulasiraman	
Binding number, cycles and complete graphs	290
V.G. Kane and S.P. Mohanty	
A class of counterexamples to a conjecture on diameter critical graphs	297
V. Krishnamoorthy and R. Nandakumar	
Reconstruction of a pair of connected graphs from their line-concatenations	301
V.R. Kulli and N.S. Annigeri	
On domination related concepts in Graph Theory	308
Renu Laskar and H.B. Walikar	
The local central limit theorem for Stirling numbers of the second kind and an estimate for Bell numbers	321
V.V. Menon	
A family of hypo-hamiltonian generalized prisms	331
S.P. Mohanty and Daljit Rao	
Graphical cyclic permutation groups	339
S.P. Mohanty, M.R. Sridharan and S.K. Shukla	
Orthogonal main effect plans with variable number of levels for factors	347
A.C. Mukhopadhyay	
On molecular and atomic matroids	358
H. Narayanan and M.N. Vartak	
New inequalities for the parameters of an association scheme	365
A. Neumaier	

On the $(4,3)$ -regular subgraph conjecture	368
K.R. Parthasarathy and S. Sridharan	
Enumeration of Latin rectangles via SDR's	380
C.R. Pranesachar	
Nearly line regular graphs and their reconstruction	391
S. Ramachandran	
On reconstructing separable digraphs	406
S. Ramachandran	
On degree sequences of cacti	410
A. Ramachandra Rao	
A survey of the theory of potentially P-graphic and forcibly P-graphic degree sequences	417
S.B. Rao	
Towards a theory of forcibly hereditary P-graphic sequences	441
S.B. Rao	
The minimal forbidden subgraphs for generalized line-graphs	459
S.B. Rao, N.M. Singhi and K.S. Vijayan	
Spectral characterization of the line graph of K_{ℓ}^n	473
S.B. Rao, N.M. Singhi and K.S. Vijayan	
Balanced arrays from association schemes and some related results	481
G.M. Saha	
Some further combinatorial and constructional aspects	488
of generalized Youden designs	
Bikas K. Sinha	
Maximum degree among vertices of a non-Hamiltonian homogeneously traceable graph	496
Z. Skupień	