

CONTENTS

Foreword	7
List of participants	9
 Lectures:	
K. ČULÍK: Applications of graph theory to mathematical logic and linguistics	13
G. A. DIRAC: Generalizations of the five colour theorem	21
P. ERDÖS: Extremal problems in graph theory.....	29
M. FIEDLER: Some applications of the theory of graphs in matrix theory and geometry ...	37
T. GALLAI: Critical graphs	43
F. HARARY: On the reconstruction of a graph from a collection of subgraphs	47
H. IZBICKI: An edge colouring problem	53
A. KOTZIG: Hamilton graphs and Hamilton circuits	63
C. ST. J. A. NASH-WILLIAMS: On well-quasi-ordering trees	83
G. RINGEL: Extremal problems in the theory of graphs	85
H. SACHS: On regular graphs with given girth	91
A. A. ZYKOV: Recursively calculable functions of graphs	99
 Communications:	
A. ÁDÁM: Some open problems of the switching circuit theory	109
J. BLAŽEK, M. KOMAN: A minimal problem concerning complete plane graphs	113
J. BOSÁK: The graphs of semigroups	119
G. A. DIRAC: Extensions of the theorems of Turán and Zarankiewicz	127
P. ERDÖS: Some applications of probability to graph theory and combinatorial problems ..	133
B. MÍŠEK: Pólya's fundamental formula and incidence matrices.....	137
J. W. MOON: Simple paths on polyhedra	143
J. SEDLÁČEK: Some properties of interchange graphs	145
A. A. ZYKOV: Graphtheoretical results of Novosibirsk mathematicians	151
 Problems	157
 Bibliography	171