The scheme of work of the thesis consists of nine chapters. The first chapter deals with the importance of mathematics teaching-learning at the secondary stage along with a brief historical background of the development of mathematics from early to the modern period followed by the analysis of the existing syllabi of school mathematics for different classes together with the new text books for each class. The impact of mathematics teachers on the revised syllabi and new text books and the poor performance of pupils in the high school leaving certificate examination are also discussed. The second chapter is devoted to the preliminary investigation about the prevailing conditions of mathematics education in Assam and the selection of the problem of study. The third chapter is completely based on the construction of experimental tests for different classes from class V to class X. Item analysis is carried out for each experimental test for finding out their difficulty and validity indices. The fourth chapter is the administration of the final format to each class along with the necessary field investigation. The chapters five and six are meant for the complete analysis of the data obtained from the experimental tests to study the difference in performance of boys and girls as well as pupils of urban, rural and backward areas. The topic wise performance of pupils in different schools and the performance in the cognitive domains are also analysed. The chapter seven is the summary of the general observations on pupils' achievement in mathematics in the experimental tests. The chapter eight exclusively deals with analyses of exercise books of school and homework of pupils of different classes, error analysis and the effect of individual...
guidance, private tuition and guardian's awareness towards their wards. The last chapter is completely devoted to discussion on the various observations and a final conclusion on the same. Necessary remedial measures are also suggested in this chapter.