<table>
<thead>
<tr>
<th>CHAPTER – I: INTRODUCTION</th>
<th>PAGE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1: COGNITIVE SKILLS</td>
<td>1-90</td>
</tr>
<tr>
<td>1.1.1: Acquisition of Cognitive Skills</td>
<td>2</td>
</tr>
<tr>
<td>1.1.2: Piaget’s Periods of Cognitive Development</td>
<td>4</td>
</tr>
<tr>
<td>1.1.3: Cognitive Skills Based on Bloom’s Classification</td>
<td>7</td>
</tr>
<tr>
<td>1.1.4: Revised Bloom’s Taxonomy</td>
<td>11</td>
</tr>
<tr>
<td>1.1.5: Taxonomies of the Cognitive Domain</td>
<td>14</td>
</tr>
<tr>
<td>1.1.6: How the Taxonomy promotes active learning</td>
<td>18</td>
</tr>
<tr>
<td>1.1.7: Why use new Bloom’s Taxonomy</td>
<td>20</td>
</tr>
<tr>
<td>1.1.8: Cognitive Skills Based on Larry and John Model</td>
<td>21</td>
</tr>
<tr>
<td>1.1.9: Cognitive Skills Based on Desoete and Roeyers Model</td>
<td>22</td>
</tr>
<tr>
<td>1.1.10: Cognitive Skills As Specified Through MLL (1991)</td>
<td>27</td>
</tr>
<tr>
<td>1.1.11: Cognitive Skills in Mathematics</td>
<td>28</td>
</tr>
<tr>
<td>1.2: STRESS</td>
<td>31</td>
</tr>
<tr>
<td>1.2.1: Components of Stress</td>
<td>38</td>
</tr>
<tr>
<td>1.2.2: Models of Stress</td>
<td>46</td>
</tr>
<tr>
<td>1.2.3: Stress and Performance</td>
<td>48</td>
</tr>
<tr>
<td>1.2.4: Biological Basis of Stress</td>
<td>49</td>
</tr>
<tr>
<td>1.2.5: Good Stress and Bad Stress</td>
<td>49</td>
</tr>
<tr>
<td>1.2.6: Strategies for Coping with Stress</td>
<td>52</td>
</tr>
<tr>
<td>1.2.7: Types of Stress</td>
<td>56</td>
</tr>
<tr>
<td>➢ Academic Stress</td>
<td>56</td>
</tr>
<tr>
<td>➢ Social Stress</td>
<td>60</td>
</tr>
<tr>
<td>1.3: ASPIRATIONS</td>
<td>62</td>
</tr>
<tr>
<td>1.3.1: Levels of Aspirations</td>
<td>68</td>
</tr>
<tr>
<td>1.3.2: Determinants of Level of Aspirations</td>
<td>73</td>
</tr>
<tr>
<td>1.3.3: Method of Studying the Levels of Aspirations</td>
<td>74</td>
</tr>
<tr>
<td>1.3.4: Types of Aspirations</td>
<td>76</td>
</tr>
<tr>
<td>➢ Educational Aspirations</td>
<td>76</td>
</tr>
<tr>
<td>➢ Occupational aspirations</td>
<td>78</td>
</tr>
<tr>
<td>1.4: SOCIO-ECONOMIC STATUS</td>
<td>79</td>
</tr>
<tr>
<td>1.4.1: Socio-Economic Status</td>
<td>81</td>
</tr>
<tr>
<td>1.4.2: Main Factors of Socio-Economic Status</td>
<td>85</td>
</tr>
<tr>
<td>1.5: EMERGENCE OF THE PROBLEM</td>
<td>88</td>
</tr>
</tbody>
</table>
CHAPTER – II: REVIEW OF RELATED LITERATURE 91-148

2.1: STUDIES RELATED WITH COGNITIVE SKILLS 91
2.2: STUDIES RELATED WITH STRESS 103
2.3: STUDIES RELATED WITH ASPIRATIONS 114
2.4: STUDIES RELATED WITH SOCIO-ECONOMIC STATUS 130
2.5: SIGNIFICANCE OF THE STUDY 140
2.6: STATEMENT OF THE PROBLEM 142
2.7: DELIMITATIONS OF THE STUDY 142
2.8: OBJECTIVES OF THE STUDY 142
2.9: HYPOTHESIS OF THE STUDY 144

CHAPTER – III: DEVELOPMENT AND DESCRIPTION OF TOOLS 149-206

3.1: COGNITIVE COMPETENCE TEST 150
   3.1.1: Development of Competence Test 150
       Stage I: Planning for the Initial Draft 150
       Step I: Identifying Cognitive Skills in Mathematics 151
       Step II: Specification of content sequences 151
       Step III: Formulation of the objectives 154
       Step IV: Specification of the Blue Print 163
       Stage II: Writing and assembling test items 166
       Step I: Generating items 166
       Step II: Assembling test items 166
       Stage III: Validation of the Test 168
       Step I: Improving the items 168
       Step II: Item Analysis 168
       Step III: Reliability and Validity of the test 183

3.2: SCALE OF STRESS 186
   3.2.1: Development and Standardization of the Battery 186
   3.2.2: Normative Approach 189
   3.2.3: Scoring-Procedure 189

3.3: EDUCATIONAL ASPIRATION SCALE 191
   3.3.1: Administration of the scale 193
   3.3.2: Scoring of the scale 193
   3.3.3: Reliability of the scale 193
   3.3.4: Validity of the scale 193
   3.3.5: Norms of the scale 194

3.4: SOCIO-ECONOMIC STATUS SCALE 195
   3.4.1: Reliability of the scale 196
   3.4.2: Validity of the scale 196
   3.4.3: Norms of the scale 196
   3.4.4: Scoring of the scale 196
CHAPTER - IV: METHOD OF THE STUDY 199-206
4.1: DESIGN OF THE STUDY 199
4.2: TOOLS USED 201
4.3: SAMPLE 201
   4.3.1: The School Sample 203
   4.3.2: The Student Sample 204
   4.3.3: The Final Sample 205
4.4: PROCEDURE OF THE STUDY 205
   ➢ Stage I: Selection of the Sample 205
   ➢ Stage II: Collection of Data 205
4.5: STATISTICAL TECHNIQUES 206

CHAPTER - V: DATA ANALYSIS AND RESULTS 207-376
5.1: SECTION-I 208
   5.1.1: Analysis on Total Scores of Mathematical Cognitive Skills 208
      5.1.1.1: Descriptive Analysis on Mathematical Cognitive Skills (Total Scores) 208
      5.1.1.2: 3×3×3 ANOVA on Mathematical Cognitive Skills (Total Scores) 211
   5.1.2: Analysis on Scores for Skill of Knowing 226
      5.1.2.1: Descriptive Analysis of Scores on Skill of Knowing 226
      5.1.2.2: 3×3×3 ANOVA on Scores of Skill of Knowing 229
   5.1.3: Analysis on Scores for skill of Understanding 235
      5.1.3.1: Descriptive Analysis of Scores on Skill of Understanding 235
      5.1.3.2: 3×3×3 ANOVA on Scores of Skill of Understanding 238
   5.1.4: Analysis on Scores for Skill of Analysis 245
      5.1.4.1: Descriptive Analysis of Scores on Skill of Analysis 245
      5.1.4.2: 3×3×3 ANOVA on Scores of Skill of Analysis 248
   5.1.5: Analysis on Scores for Skill of Applying 254
      5.1.5.1: Descriptive Analysis of Scores on Skill of Applying 254
      5.1.5.2: 3×3×3 ANOVA on Scores of Skill of Applying 257
   5.1.6: Analysis on Scores for Skill of Solving 261
      5.1.6.1: Descriptive Analysis of Scores on Skill of Solving 261
      5.1.6.2: 3×3×3 ANOVA on Scores of Skill of Solving 264
5.2: SECTION-II 269
   5.2.1: Analyses on Total Scores of Mathematical Cognitive Skills 269
      5.2.1.1: Descriptive Analysis on Mathematical Cognitive Skills (Total Scores) 269
      5.2.1.2: 3×3×3 ANOVA on Mathematical Cognitive Skills (Total Scores) 272
   5.2.2: Analysis on Scores for Skill of Knowing 292
      5.2.2.1: Descriptive Analysis of Scores on Skill of Knowing 292
      5.2.2.2: 3×3×3 ANOVA on Scores of Skill of Knowing 295
5.2.3: Analysis on Scores for Skill of Understanding 307
   5.2.3.1: Descriptive Analysis of Scores on Skill of Understanding 307
   5.2.3.2: 3×3×3 ANOVA on Scores of Skill of Understanding 310
5.2.4: Analysis on Scores for Skill of Analysis 321
   5.2.4.1: Descriptive Analysis of Scores on Skill of Analysis 321
   5.2.4.2: 3×3×3 ANOVA on Scores of Skill of Analysis 324
5.2.5: Analysis on Scores for Skill of Applying 330
   5.2.5.1: Descriptive Analysis of Scores on Skill of Applying 330
   5.2.5.2: 3×3×3 ANOVA on Scores of Skill of Applying 333
5.2.6: Analysis on Scores for Skill of Solving 336
   5.2.6.1: Descriptive Analysis of Scores on Skill of Solving 336
   5.2.6.2: 3×3×3 ANOVA on Scores of Skill of Solving 339

5.3: SECTION – III: CONCLUSIONS 345
5.4: SECTION – IV: DISCUSSION OF RESULTS 368

CHAPTER – VI: SUMMARY AND CONCLUSIONS 377-422

6.1: INTRODUCTION 377
   6.1.1: Cognitive Skills 377
   6.1.2: Stress 379
   6.1.3: Aspirations 382
   6.1.4: Socio-Economic Status 383
6.2: SIGNIFICANCE OF THE STUDY 384
6.3: STATEMENT OF THE PROBLEM 386
6.4: DELIMITATIONS OF THE STUDY 386
6.5: OBJECTIVES OF THE STUDY 386
6.6: HYPOTHESES OF THE STUDY 388
6.7: METHODOLOGY OF RESEARCH 393
   6.7.1: Design of the study 393
   6.7.2: Tools Used 393
   6.7.3: Sample 394
   6.7.4: Procedure of the Study 395
   6.7.5: Statistical Techniques 396
6.8: MAJOR FINDINGS OF THE STUDY 397
6.9: EDUCATIONAL IMPLICATIONS OF THE FINDINGS 420
6.10: SUGGESTIONS FOR FURTHER RESEARCH 422

REFERENCES 423-444

APPENDICES (i)-(lxi)