# CONTENTS

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>List of Tables</td>
<td>i</td>
</tr>
<tr>
<td></td>
<td>List of Figures</td>
<td>iv</td>
</tr>
<tr>
<td></td>
<td>List of Abbreviations</td>
<td>viii</td>
</tr>
<tr>
<td></td>
<td>Preface</td>
<td>ix</td>
</tr>
</tbody>
</table>

## CHAPTER I

### INTRODUCTION

1.1 General Introduction 1
1.2 Growth and Development 3
1.3 Anthropometry and Sports 6
1.4 Regional Variation 8
1.5 Statement of the Problem 11
1.6 Purpose of the Study 11
1.7 Significance of the Study 12
1.8 Delimitation of the Study 12
1.9 Limitation of the Study 13
1.10 Meaning and Definition of the Terms 14

## CHAPTER II

### REVIEW OF RELATED LITERATURE

18
CHAPTER III
MATERIALS AND METHODS

3.1 Introduction 35
3.2 Selection of Subjects 35
3.3 Selection of Variables 38
3.4 Tester Competency 39
3.5 Reliability of the Instruments 40
3.6 Reliability and Validity of Tests 41
3.7 Procedure for Administering the Tests 41
3.7.1 Conductance of Anthropometric Measurements 43
3.7.2 Conductance of Motor Quality Tests 48
3.8 Environmental Condition 58
3.9 Statistical Analysis 58

CHAPTER IV
RESULT AND DISCUSSION 59

4.1 General Introduction 59
4.2 Anthropometric Variables 60
4.2.1 Result 60
4.2.2 Comparison Between Eastern Region (ER) and North East Region (NER) Boys 66
4.2.3 Growth Pattern 74
4.2.4 Discussion on Findings of Anthropometric Variables 78
4.2.5 Summary of Findings on Anthropometric Variables 84
CHAPTER IV
RESULT AND DISCUSSION

4.3 Motor Quality Variables .................................................. 86
4.3.1 Result ............................................................................ 86
4.3.2 Comparison Between Eastern Region (ER) and North East Region (NER) Boys .................................................. 93
4.3.3 Discussion on Findings of Motor Quality Variables .................................................. 105
4.3.4 Summary of Findings on Motor Quality Variables .................................................. 115
4.4 Coefficient of Correlation Between Selected Anthropometric and Motor Quality Variables .................................................. 117
4.4.1 Result ............................................................................ 117
4.4.2 Eastern Region (ER) .................................................. 117
4.4.3 North East Region (NER) .................................................. 121
4.4.4 Discussion on Findings of Coefficient of Correlations Between Anthropometric and Motor Quality Variables .................................................. 123
4.4.5 Summary of Findings Related to the Relationship Between Anthropometric and Motor Quality Variables .................................................. 125
4.5 Percentile Ranking .................................................. 126
4.5.1 Anthropometric Variables .................................................. 127
4.5.2 Motor Quality Tests .................................................. 133
4.5.3 Summary of Findings on Percentile Ranking .................................................. 146
CHAPTER V
SUMMARY, CONCLUSION AND RECOMMENDATIONS 148

5.1 Summary 148
5.2 Conclusion 151
5.2.1 On Anthropometric Variables 151
5.2.2 On Motor Quality Variables 152
5.2.3 On Relationship Between Anthropometric and Motor Quality Variables 153
5.2.4 On Percentile Ranking 153
5.3 Recommendation 154

BIBLIOGRAPHY 155