LIST OF TABLES

Table No. | Title                                                                 | Page No |
----------|----------------------------------------------------------------------|---------|
Table: 1.1 | Soil types of the Shivani watershed area                             | 11      |
Table: 1.2 | Information about Rainfall from last 30 years (1976-2006)            | 17      |
Table: 2.1 | Land use / land cover classification of the Shivani watershed        | 45      |
Table: 4.1 | Calculated value of logarithm cumulative mean length of the stream orders | 74      |
Table: 4.2 | Graded texture of drainage density                                   | 87      |
Table: 4.3 | Quantitative morphometric analysis                                   | 90      |
Table: 4.4 | Details of classified geomorphic units                               | 91      |
Table: 4.5 | Classification of slope                                              | 98      |
Table: 5.1 | Information on VES investigation location                            | 107     |
Table: 5.2 | Interpreted Results of Geo-electrical Survey                         | 115     |
Table: 6.1 | Analytical methods employed for physico-chemical analysis of water samples of Shivani watershed | 136     |
Table: 6.2 | Partial chemical analytical results of groundwaters of Shivani watershed with Comparison of WHO, 2005 drinking water quality standards | 138 - 139 |
Table: 6.3 | Classification of waters of Shivani watershed area                   | 140     |
Table: 6.4 | Classification of groundwater of the study area                      | 143     |
Table: 6.5 | Classification of groundwater from Shivani watershed based on Total Hardness | 148     |
Table: 6.6 | Range of Hardness recommended by USGS                                | 149     |
Table: 6.7 | Fluoride in groundwater of the study area                            | 159     |
Table: 6.8 | Hydro-chemical parameters of Shivani watershed area                  | 167 - 168 |
Table: 6.9 | Characterization of groundwaters of Shivani watershed                | 170     |
Table: 6.10 | Classification of groundwaters of Shivani watershed based on Piper's | 171     |
Table: 6.11 | Back’s hydro-chemical classification of waters of Shivani watershed | 173     |
Table: 6.12 | Basic Criteria used in Handa’s classification                        | 174     |
Table: 6.13 | Classification of groundwaters of Shivani watershed                  | 175     |
Table: 6.14 Classification of groundwaters of Shivani watershed based on Stuyfzands and USSL Class 176-177

Table: 6.15 Classification of groundwaters of Shivani watershed for irrigational suitability (After Wilcox, 1948) 185

Table: 6.16a Sodium percentage in groundwaters of the study area 186

Table: 6.16b Classification of groundwaters 186

Table: 6.17 Sodium Adsorption Ratio Classifications 186

Table: 6.18 Irrigation suitability of groundwaters of Shivani watershed (USSL, 1954) 187