This dissertation describes the phonetic properties of the Sora language as it is spoken in Assam of north-east India. Sora belongs to the South Munda sub-branch of the Austroasiatic language family and it is mainly spoken in Orissa and Andhra Pradesh of eastern India. Sora was transplanted to Assam after groups of Sora people migrated from Orissa to Assam in the 19th century as indentured tea laborers. This work provides evidence that synchronically the Sora language of Assam and Orissa have similar phonetic properties. Thus, it is revealed that, unlike other transplanted languages, Sora has successfully preserved its phonetic properties even after hundred years of being separated from its place of origin. In the phonetic description of syllable structure, evidences reveal that disyllabic word is the minimal word template in Sora and (C)V(C) is the basic syllable structure of both the syllables. Also, acoustic properties of syllable stress, including vowel duration, fundamental frequency and vowel intensity, reveal the presence of an iambic stress in the Sora language. This indicates that, the typical weak-strong word prosody of Austroasiatic language family, generally argued as lost in Munda languages, is preserved in the Sora language. In the vowel segments, results show that formant frequencies (F1 and F2) adequately categorize the six vowel system of the Sora language. Moreover, correlation between vowels and syllable stress indicate that Sora vowel formants and vowel area space change as a function of syllable position. The results confirm that, vowel area space is generally larger in second syllable than in first syllable. For consonant segments, evidences show that, VOT feature adequately separates word initial voiced and voiceless stops and nasal formants are distinct indicators of nasal coda. Finally, for glottal stops, it is shown that intervocalic glottal stops have three phonetic realizations, including complete glottal stops, voiced glottal stops and creaky voiced glottal stops whereby creaky voiced glottal stops have two way pitch realizations namely, rising and dipped.