Languages and Grammars

10 Jan 2018

Intruction : Write the answers to the problems neatly in loose sheets with your name and roll number. Submit to the TA in the subsequent class.

1. Let $\Sigma = \{a, b\}$. Find a grammar that generates the language $l = \{a^n b^{n-3} | n \geq 3\}$.
2. Give the description of the language generated by $S \to aSb|bSa|a$.
3. Let $\Sigma = \{a, b\}$. Find a grammar that generates the language $L = \{w | n_a(w) = 2n_b(w)\}$.
4. Show that the grammars $S \to SS|aSb|bSa|a$ and $S \to aSb|bSa|\lambda$ are not equivalent.