

FORMAL LANGUAGES AND AUTOMATA  
Homework-5

For the language  $L = \{a^i b^{i+j} a^j \mid i > 0, j \geq 0\}$ ,

- a) Write the grammar production rules.
- b) Design a PDA for this language.
- c) Show how the strings  $aabbba$  and  $aaabbb$  are accepted by the PDA you designed.

**IMPORTANT:** You must do this homework **by hand** and **submit it using the box in the secreteriat**.