

**CS-302 Theory of Computation
Assignment 11**

Name: _____

1. Alter the grammar given in class to generate the language $L = \{w \mid w = w^R\}$ of all palindromes.

2. Construct context-free grammars for the following languages:

a) $L_1 = \{a^n b^n a^m b^m \mid n, m = 0, 1, 2, \dots\}$

b) $L_2 = \{a^n b^{n+m} a^m \mid n, m = 0, 1, 2, \dots\}$
