This pset concerns the realization of stressed syllables in Standard Italian (Roman dialect). We will assume (with the majority of the literature) that the language has an underlying contrast of long (geminate) vs. short consonants while there is no underlying contrast in vowel length.

The following generalizations describe the properties of stressed syllables

1. In a stressed open C(C)V. syllable the vowel is realized as long

   tó:po ‘mouse’  fór.no ‘oven’  gnóc.co ‘dumpling’
   fá:te ‘do!’  cál.do ‘hot’  dráp.po ‘cloth’
   tré:no ‘train’  dén.te ‘tooth’  fratél.lo ‘brother’

2. But if the syllable is word final it is not lengthened

   caffé ‘coffee’  cittá ‘city’  papá ‘dad’ (cf. pá:pa ‘pope’)

3. The initial consonant of a word is geminated after a word ending in a stressed vowel unless that consonant is an [s] followed by a stop. (Chierchia 1986)

   sánta ‘holy’  cittá ssánta ‘holy city’
   puli:ta ‘clean’  cittá ppuli:ta ‘clean city’
   tríste ‘sad’  cittá tríste ‘sad city’
   spórca ‘dirty’  cittá spórca ‘dirty city’  *cittá sspórca, *cittá: spórca

4. Geminate consonants in Italian are restricted to occur intervocally or in a trisonsonantal cluster before a [+sonorant] consonant.

   gatto ‘cat’  appagato ‘satisfied’
   quattro ‘four’  applauso ‘applause’
   quarto ‘fourth’  alpe ‘alp’
   *quarto  *alppe

[5] Develop an OT analysis for these properties of the Italian stressed syllable. Your analysis should include a definitional statement of the constraints, all crucial rankings demonstrated by tableaus, and a Hasse diagram summarizing the rankings.