

HOMEWORK #4

Due: Feb 19, 2007; 11:00

*****NO EXTENSIONS FOR THIS HOMEWORK*****

Total: 25 points (2.5% of semester grade)

Name: _____

I worked with: _____

QUESTION 1 **7 points**

List the members of the following natural classes of sounds.

- a. English rounded vowels _____
- b. German rounded vowels _____
- c. English high front vowels _____
- d. German high front vowels _____
- e. English alveolar sonorants _____
- f. English voiced bilabial stops _____
- g. English voiced palatals _____
- h. English alveolar fricatives _____

QUESTION 2 **8 points**

What is the natural class of each of the following sets of sounds in English?

- a. [ʒ, ʒ̥] _____
- b. [m, w] _____
- c. [p, b, m] _____
- d. [d, z, r] _____
- e. [ɪ, ɛ, æ] _____
- f. [ʊ, ɔ] _____
- g. [i, u] _____
- h. [ʊ, ɔ, ɑ] _____

QUESTION 3**5 points**

Consider the following data from Gascon, a language spoken in southwest France and answer the questions below. The tilde (~) on top of a vowel indicates that the vowel is nasalized. As shown in the examples below, Gascon has both oral and nasalized vowels.

a.	[bako]	‘cow’	g.	[br̃ɛn]	‘endanger’
b.	[dilys]	‘Monday’	h.	[d̃iŋko]	‘until’
c.	[fred]	‘cold’	i.	[ũmbro]	‘shadow’
d.	[gutea]	‘flow’	j.	[pũnde]	‘to lay eggs’
e.	[dudze]	‘twelve’	k.	[l̃uŋg]	‘long’
f.	[dusko]	‘sweet’	l.	[ẽŋgwãn]	‘last’

- I) Are there any minimal pairs involving oral and corresponding nasalized vowels? If yes, list them? If no, state what we can conclude from the lack of minimal pairs.
- II) State the phonological environments in which nasalized vowels occur in the data given above. Make sure you provide a generalization stated in terms of natural classes.
- III) Provide a phonological rule that accounts for the distribution of oral and nasalized vowels in Gascon.

QUESTION 4**5 points**

Indicate whether each of the following statements is true or false.

- | | | |
|----|--|-------|
| a. | Phonemes can be contrastive or non-contrastive. | _____ |
| b. | The choice between two allophones of the same phoneme is not always predictable. | _____ |
| c. | In English, aspirated and non-aspirated stops are in free variation. | _____ |
| d. | In Hindi, aspirated and non-aspirated stops are in free variation. | _____ |
| e. | In English, released and non-released stops are in free variation. | _____ |