

NAME \_\_\_\_\_

The questions sum up to 80 points. You get 20 points just for submitting the exam. (Total = 100 pts)

The midterm exam is due on Monday, May 11 at 8AM. No late submission will be allowed.

We can answer to clarification questions via email until Friday, May 8 at 6PM. After that, we'll not answer to any questions regarding the exam.

You can either handwrite your answer and scan it or type directly on the .pdf file.

## 1 Short Answer (10 pts)

- (1) Please explain why phonologists posit abstract underlying representations for words.

## 2 Contrast and allophones (20 pts)

The following data from Ganda exemplify the complementary distribution of [r] and [l].

|           |          |           |            |          |                  |
|-----------|----------|-----------|------------|----------|------------------|
| kola      | 'do'     | wulira    | 'hear'     | oluganda | 'Ganda language' |
| wawa:bira | 'accuse' | olulimi   | 'tongue'   | lagira   | 'command'        |
| ebendera  | 'flag'   | lu:la     | 'ruler'    | le:rwe   | 'railway'        |
| sa:fali   | 'safari' | lwana     | 'lwana'    | be:ra    | 'help'           |
| bu:lira   | 'tell'   | ɔ̣ukira   | 'remember' | lja      | 'eat'            |
| erjato    | 'canoe'  | lu:la     | 'sit'      | omuliro  | 'fire'           |
| omugole   | 'bride'  | effirimbi | 'whistle'  | lumonde  | 'sweet potato'   |
| emme:ri   | 'ship'   | eddwaliro | 'hospital' | eraddu   | 'lightning'      |

- (2) State a generalization about where [r] and [l] are found.
- (3) Which allophone is more basic (= underlying form) in Ganda, [r] or [l]? Explain your answer.
- (4) What are the underlying representations for:  
 'sit' \_\_\_\_\_ 'whistle' \_\_\_\_\_ 'accuse' \_\_\_\_\_ 'command' \_\_\_\_\_
- (5) Write a rule for deriving the distribution of Ganda liquids. Use distinctive features.

### 3 Underlying representations (25 pts)

The following words are some examples of numerals in Tibetan.

|     |        |         |            |        |            |
|-----|--------|---------|------------|--------|------------|
| ཇིག | 'one'  | ཇུ      | 'ten'      | ཇུར་གུ | 'nineteen' |
| ཇི  | 'four' | ཇུག་ཇིག | 'eleven'   | ཇིབ་ཇུ | 'forty'    |
| ཇཱ  | 'five' | ཇུབ་ཇི  | 'fourteen' | ཇཱབ་ཇུ | 'fifty'    |
| གུ  | 'nine' | ཇུར་ཇཱ  | 'fifteen'  | གུབ་ཇུ | 'ninety'   |

- (6) What kind of syllables does Tibetan have? State schematically using the C/V bracket notation (as in "(C)VC").
- (7) What is the order of morphemes in Tibetan numerals for teens (e.g., 14) and for multiples of ten (e.g., 40)?
- "14" \_\_\_\_\_ "40" \_\_\_\_\_
- (8) State a descriptive generalization about the phonological alternation you see in this problem.
- (9) What are the underlying representations and allomorphs for:

|        | UR | Allomorphs |
|--------|----|------------|
| 'one'  |    |            |
| 'ten'  |    |            |
| 'four' |    |            |
| 'five' |    |            |
| 'nine' |    |            |

- (10) Write the rule that derives this pattern.

#### 4 Rules and rule interactions (25 pts)

The following paradigms from Catalan (simplified for this question) show evidence of two rules.

| Masc sg | Fem sg  | Gloss      | Masc sg | Fem sg   | Gloss    |
|---------|---------|------------|---------|----------|----------|
| əkəl    | əkələ   | ‘that’     | səyu    | səyurə   | ‘sure’   |
| nu      | nuə     | ‘nude’     | sərəðo  | sərəðorə | ‘reaper’ |
| ʃop     | ʃopə    | ‘drenched’ | siβil   | siβilə   | ‘civil’  |
| əspes   | əspesə  | ‘thick’    | fər     | fərtə    | ‘strong’ |
| bəʃ     | bəʃə    | ‘short’    | sor     | sorðə    | ‘deaf’   |
| tot     | totə    | ‘all’      | san     | santə    | ‘saint’  |
| pək     | pəkə    | ‘little’   | əlβi    | əlβinə   | ‘albino’ |
| mal     | malə    | ‘bad’      | pla     | planə    | ‘level’  |
| kru     | kruə    | ‘raw’      | sərə    | sərənə   | ‘calm’   |
| əskep   | əskepə  | ‘shy’      | al      | altə     | ‘tall’   |
| sek     | səkə    | ‘dry’      | prufun  | prufundə | ‘deep’   |
| gros    | grosə   | ‘large’    | kur     | kurtə    | ‘short’  |
| koʃ     | koʃə    | ‘lame’     | bər     | bərðə    | ‘green’  |
| brut    | brutə   | ‘dirty’    | kələn   | kələntə  | ‘hot’    |
| suβlim  | suβlimə | ‘sublime’  | fəkun   | fəkundə  | ‘bad’    |
| maksim  | maksimə | ‘maximal’  | dəsən   | dəsəntə  | ‘decent’ |

(11) What are the underlying representations for the masculine forms of:

‘all’ \_\_\_\_\_ ‘sure’ \_\_\_\_\_ ‘civil’ \_\_\_\_\_  
 ‘strong’ \_\_\_\_\_ ‘level’ \_\_\_\_\_ ‘deep’ \_\_\_\_\_

(12) State the two rules of Catalan in prose.

Rule 1:

Rule 2:

(13) Now formalize your two rules in terms of distinctive features, and give them names.

|        | Name of the rule | Rule with distinctive features |
|--------|------------------|--------------------------------|
| Rule 1 |                  |                                |
| Rule 2 |                  |                                |

(continue on next page)

- (14) How are these rules ordered with respect to each other? Support your answer with a derivation for masculine forms of 'all', 'sure', 'civil', and 'strong' below. What kind of interaction is this?

|              | 'all (masc.)' | 'sure (masc.)' | 'civil (masc.)' | 'strong(masc.)' |
|--------------|---------------|----------------|-----------------|-----------------|
| UR           |               |                |                 |                 |
|              |               |                |                 |                 |
|              |               |                |                 |                 |
| Surface form |               |                |                 |                 |

Rule ordering type: \_\_\_\_\_

- (15) Now, show a derivation with the opposite (incorrect) order and give the hypothesized surface forms that the opposite (incorrect) order would produce. What kind of interaction is this?

|              | 'all (masc.)' | 'sure (masc.)' | 'civil (masc.)' | 'strong(masc.)' |
|--------------|---------------|----------------|-----------------|-----------------|
| UR           |               |                |                 |                 |
|              |               |                |                 |                 |
|              |               |                |                 |                 |
| Surface form |               |                |                 |                 |

Rule ordering type: \_\_\_\_\_