

Write your name on your bluebook. Answer the following questions in it. Follow time indications. You may consult the attached feature matrices as needed. Hand in all papers when you have finished.

1. Feature terminology. Identify the feature necessary to account minimally for each of the phonological contrasts below. 10 minutes.

- a. /p/ vs. /p^h/ d. /s/ vs. /š/
 b. /φ/ vs. /f/ e. /i/ vs. /u/
 c. /l/ vs. /r/

2. In plain English, what do the following rules do? 10 minutes.

a.
$$\begin{bmatrix} - \text{syllabic} \\ + \text{nasal} \end{bmatrix} \rightarrow \emptyset / \begin{bmatrix} + \text{syllabic} \\ + \text{nasal} \end{bmatrix} \text{-----} \left\{ \begin{bmatrix} - \text{syllabic} \\ \# \end{bmatrix} \right\}$$

b.
$$[+ \text{syllabic}] \rightarrow \begin{bmatrix} \alpha \text{ back} \\ \beta \text{ labial} \end{bmatrix} / \text{-----} C_0 \begin{bmatrix} + \text{syllabic} \\ \alpha \text{ back} \\ \beta \text{ labial} \end{bmatrix}$$

3. Using the attached matrices, write the following rules in distinctive features. 15 minutes.

- a. An unstressed vowel is voiceless between two voiceless obstruents.
 b. Word-final stops are deleted after fricatives.
 c. High vowels become mid when followed by syllables containing high vowels.

4. Malay. There are two parts to this question. Answer both of them. 10 minutes.

(1) Discuss the phonological status of [t] and [tʰ]. All forms are phonetic.

- | | | | |
|------------------------|-----------|-------------------------|-------------|
| a. tarek | ‘pull’ | f. t ^y ampah | ‘tasteless’ |
| b. kətɪl | ‘a pinch’ | g. kət ^y ut | ‘shriveled’ |
| c. pitər | ‘disk’ | h. ket ^y ek | ‘pampering’ |
| d. lawat | ‘visit’ | i. bat ^y a | ‘steel’ |
| e. kət ^y il | ‘small’ | j. t ^y arek | ‘rip’ |

(2) What would you conclude from the following additional forms:

- a. čarek ‘rip’ b. čampah ‘tasteless’ c. kəčil ‘small’

5. There are two parts to this question. Answer both of them. 10 minutes.

In Corsican, some, but not all, vowel phonemes have nasal allophones before nasal consonants in the same syllable.

- (1) On the basis of the following phonetic data, characterize as economically as possible the class of vowels that have nasal allophones.
- (2) What can be observed regarding the distribution of the nasal consonants?

a. prinčipe	‘prince’	d. fuŋgu	‘mushroom’
b. ãŋku	‘also’	e. kōntu	‘account’
c. pōnte	‘bridge’	f. fundamēntu	‘foundation’

6. There are four parts to this question. Answer all of them. 20 minutes.

In Slovak, [v] and [w] are allophones of one phoneme. Assume that the following examples exhaustively illustrate the range of their occurrence.

- (1) State their relative distribution.
- (2) Select one of them as the phoneme; justify your choice.
- (3) Write a rule in plain English to predict the other.
- (4) Write the rule formally.

Note: /r/ and /l/ function as vowels in this language; as such, they are indicated by [r̥] and [l̥], resp. Long vowels are denoted by [:]. All forms are phonetic. Hint: don't forget to consider syllable structure as well as other possible conditioning factors.

a. vedro	‘bucket’	l. splaw	‘sluice-gate’
b. vatra	‘camp fire’	m. xl̥yew	‘byre’
c. vyera	‘faith’	n. na:zow	‘title’
d. krava	‘cow’	o. p̥rw	‘first’
e. v̥rx	‘top’	p. d̥yewča	‘girl’
f. v̥lk	‘wolf’	q. n̥em̥rw	‘don’t move’
g. zv̥ln̥it̥y	‘to make waves’	r. kriwka	‘curve’
h. vnada	‘charm’	s. stowka	‘100’
i. červi	‘worms’	t. obuw	‘footwear’
j. vdova	‘widow’	u. k̥rw	‘blood’
k. prawda	‘truth’	v. k̥rwni:	‘bloody’

Castilian Spanish

	Obstruents											Resonants								
												Nasals			Liquids				Glides	
	p	b	f	θ	t	d	s	ç	k	g	x	m	n	ɲ	l	ʎ	ʝ	ʎ̄	y	w
Syllabic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Consonantal	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-
Sonorant	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+
Coronal	-	-	-	+	+	+	+	-	-	-	-	+	+	+	+	+	+	+	+	-
Anterior	+	+	+	+	+	+	-	-	-	-	+	+	-	+	-	+	+	-	-	-
Labial	+	+	+	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	+
High	-	-	-	-	-	-	-	+	+	+	-	-	+	-	+	-	-	+	+	+
Low	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Back	-	-	-	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-	+
Continuant	-	-	+	+	-	-	+	-	-	-	+	-	-	-	-	+	+	+	+	+
Lateral	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	-	-	-	-	-
Strident	-	-	+	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-
Nasal	-	-	-	-	-	-	-	-	-	-	+	+	+	-	-	-	-	-	-	-
Voiced	-	+	-	-	-	+	-	-	-	+	-	+	+	+	+	+	+	+	+	+
Tense (long)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-

		Vowels				
		i	e	a	o	u
High		+	-	-	-	+
Low		-	-	+	-	-
Back		-	-	+	+	+
Labial		-	-	-	+	+
Tense		+	+	-	+	+