(G) Feathers of the Roseate Spoonbill (1/3) [15 Points]

Classical Nahuatl was the language of the Aztec Empire. Although Classical Nahuatl is no longer actively spoken, it is related to modern Nahuatl, which has approximately 1.5 million speakers, mainly in Mexico.

Over the centuries, scholars have proposed several different writing systems for representing Classical Nahuatl. Some early approaches from the 16th century were based on the system used for Spanish at the time. However, this approach faced challenges in how to represent sounds and distinctions that were not present in Spanish.

One solution is to use the International Phonetic Alphabet (IPA). The IPA is designed to represent all sounds of human speech unambiguously, and so it provides a reliable transcription system that can be read by linguists across the world. However, the IPA is often unwieldy and does not reflect the needs of particular language communities. Therefore, the IPA is rarely used by non-linguists.

Some more recent proposals are therefore designed specifically with Nahuatl in mind, in order to ensure both ease of use (which the IPA lacks) and faithfulness to the language (which the 16th-century systems lacked). To illustrate some of the writing systems that have been proposed over the years, the name of the Nahuatl language can be written as *nahuatlatolli* in a 16th-century writing system, /nawat͡ɬaʔtoːlli/ in the IPA, or *nahuatlàtōlli* in a 20th-century writing system.

Below is the first stanza of a Nahuatl poem, "The Song of Temilotzin." On the left is the poem as it appears in a manuscript of the 16th century (modified slightly for clarity). On the right, the text has been rewritten in a system proposed more recently, in the 20th century.

16th-century writing system	20th-century writing system
Ye nihualla, antocnihuan in:	Ye nihuāllâ, antocnīhuān in:
noconcozcazoya,	noconcōzcazōya,
nictzinitzcamana,	nictzinitzcamana,
nictlauhquecholihuimolohua,	nictlāuhquechōlihuimolohua,
nicteocuitlaicuiya,	nicteōcuitlàicuiya,
nicquetzalhuixtoilpiz	nicquetzalhuixtoilpīz
in icniuhyotl.	in icnīuhyōtl.
Niccuicailacatzoa cohuayotl.	Niccuīcailacatzoa cōhuayōtl.
In teucpan nicquixtiz,	In tēucpan nicquīxtīz,
an ya tonmochin,	ān ya tonmochīn,
quin icuac tonmochin in otiyaque	quin ìcuāc tonmochīn in ōtiyàquê
ye Mictlan.	ye Mictlān.
In iuh ca zan tictlanehuico.	In iuh ca zan tictlānehuīcô.

Here are some words and phrases from "The Song of Temilotzin" in the 16th-century writing system, along with their equivalents in the IPA, as well as English translations:

nictlauhquecholihuimolohua
/niktɬaːwketʃoːliwimolowa/
'I adorn it with feathers of the roseate spoonbill (a kind of bird)'

nicteocuitlaicuiya
/nikteoːkʷitɬaiʔkʷija/
'I wrap it with coils of gold'

nicquetzalhuixtoilpiz in icniuhyotl
/nikketsalwiʃtoilpiːs in ikniːwjoːtɬ/
'I have bound up our friendship like a captive with feathers of the quetzal (another kind of bird)'

in teucpan nicquixtiz
/in teːkʷpan nikkiːʃtiːs/
'I will make it emerge in the palace'

otiyaque ye Mictlan
/oːtijaʔkeʔ je miktɬaːn/
'we will have gone to Mictlan (the land of the dead)'

G1. Convert the following phrases from the 16th-century writing system into the IPA:

a. *ye nihualla* 'I have already come'

b. *antocnihuan in* 'my friends'

c. *quin icuac* 'because'

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G2. Convert the following words from the IPA into the 20th-century writing system:

a. /weːweʔ/ 'old man'

[ ]

b. /tʃokolaːtɬ/ 'chocolate'

[ ]

c. /miktɬaːnteːkʷtɬi/ 'Lord of the dead'

[ ]

G3. In set theory (a branch of mathematics), it is said that there is a *bijection* between two sets if it is possible to convert from one set to the other and back without losing any information. This concept can be extended to describe writing systems. For example, there is a bijection between the set of numbers written in numerals (e.g., 43 or 11) and the set of numbers written in letters (e.g., *forty-three* or *eleven*). If you ignore capitalization, there is a bijection between two of the writing systems discussed here. Which two writing systems are they?

16th-century and 20th-century   16th-century and IPA   20th-century and IPA