A. Tibetan Numberals (20%)

The following forms illustrate a process of word formation in modern Tibetan (Lhasa dialect). Tones are omitted. /t͡ɕ/: voiceless alveo-palatal affricate

DATA:

1.	t͡ɕu	'ten'
2.	t͡ɕik	'one'
3.	t͡ɕukt͡ɕik	'eleven'
4.	ɕi	'four'
5.	t͡ɕupɕi	'fourteen'
6.	ɕipt͡ɕu	'forty'
7.	ku	'nine'
8.	t͡ɕurku	'nineteen'
9.	kupt͡ɕu	'ninety'
10.	ŋa	'five'
11.	t͡ɕuŋa	'fifteen' (simplified for this exercise)
12.	ŋapt͡ɕu	'fifty'

QUESTION 1: List all alternants associated with each of the following meanings.

a. 'ten' b. 'one' c. 'four' d. 'nine' e. 'five'

QUESTION 2: The simplest way of describing these forms is to set up an underlying representation (UR) for each word consisting of the base form of each of its morphemes. All forms can be derived from this UR by a regular phonological change. Note that the UR need not be identical to any actually appearing word.

a. What is the UR of the word 'ten'? Justify your answer.

b. Determine the UR of each of the words: 'one', 'four', 'nine', and 'five'

c. What is the phonological change? Write the rule(s) and explain with example(s) how the rule(s) work.

B. Sierra Popoluca (Mexican) (20%)

1. pet — He swept.
2. miñ — He came.
3. wi?k — He ate.
4. nʌk — He went.
5. hoks — He hoed.
6. miññe? — He has come.
7. wi?kne? — He has eaten.
8. hoksne? — He has hoes.
9. pedo?y — He swept here and there.
10. hokso?y — He hoed here and there.
11. wi?kwi?kne? — He kept eating over and over.
12. nʌknʌkne? — He kept going over and over.
13. hokshoksne? — He kept hoeing over and over.
14. petpedo?y — He kept sweeping here and there.
15. hokshokso?y — He kept hoeing here and there.

QUESTION 1: What is the Sierra Popoluca equivalent of the repetitive morpheme ('keep Ving')? Does it have allomorphs? If yes, what are they? How is this morpheme different from other morphemes in the data set? Explain why we do not see *nʌkne ?nʌkne ? for #12.

QUESTION 2. What is /ne?/? We see /ne?/ both in 6-8 and in 11-13. Is it the same morpheme? If yes, explain how the surface meaning can be related. If not, explain why not.

QUESTION 3. Can this language be used to argue for rule ordering? If yes, why? If not, why not?

QUESTION 4. Show how you derive the following sentences from the underlying forms. (You have to show the URs for each morpheme first.)

      a. He has come.

      b. He kept sweeping here and there.

QUESTION 5. Based on your analysis, what will be the Sierra Popoluca equivalent of the following English sentence?

      He kept sweeping over and over.

C. Yakut (Siberia Altaic) (35%)

The data consist of nouns in various case forms. Note: /ɯ/: high back unrounded vowel; /ø/: mid front rounded vowel; /y/: high front rounded vowel

	Absolute	Plural	Our N	Gloss
1.	aɣa	aɣalar	aɣabɯt	father
2.	oɣo	oɣolor	oɣobut	child
3.	kyøl	kyøller	kyølbyt	lake
4.	at	attar	apput	horse
5.	kus	kustar	kusput	duck
6.	sep	septer	seppit	tool
7.	et	etter	eppit	meat
8.	ox	oxtor	oxput	arrow
9.	tobuk	tobuktar	tobukput	knee
10.	tiiŋ	tiiŋner	tiiŋmit	squirrel
11.	aan	aannar	aanmɯt	door
12.	olom	olomnor	olommut	ford

QUESTION 1: For each suffix, list all allomorphs.

      a. absolute   b. plural   c. 1st plural possessive

QUESTION 2. We assume **ONE** underlying form for each morpheme and derive the allomorphs from this underlying form (or base form). What is the UR of the plural morpheme? **Justify your answer.**

QUESTION 3: Decide the URs of the noun stems and the 1st. pl. possessive.

QUESTION 4. Apparently, putting the URs together does not always give you the surface forms. State a set of the rules that will derive the surface forms from the URs you select in Q2 and Q3. Use examples to illustrate each rule.

QUESTION 5. Show step by step how you derive the surface plural and 1st. pl. possessive of the words *tool*, *door*, and *child*.

D. Peñoles Mixtec (Mexican) (25%)

Consider the following sentences.

(1) a. ní-ʃinu   tée-ą́
COMPL-run   man-that
That man ran.

b. ní-ndua-ʃi
COMPL-fall-she
She fell.

c. ní-ʃini   tée-ą́   įį   iná
COMPL-see   man-that   one   dog
That man saw a dog.

d. ní-tuʃi-dě   bítú
COMPL-hew-he   beam
He hewed the beam.

e. ní-sáʔa   tée-ą́   déʔe-dé   įį   iná
COMPL-give   man-that   child-he   one   dog
That man gave his child a dog.

f. ní-ʃii-ʃi   ditó-ʃi   įį   kwèndú
COMPL-say-she   uncle-she   one   story
She told her uncle something.

(2) a. *ní-ʃinu   tée-ą́   įį   iná
CIMPL-run   man-that   one   dog
That man ran a dog.

b. *ní-ʃiní   tée-ą́
COMPL-see   man-that
That man saw.

QUESTION 1. Write a grammar of Peñoles Mixtec that generates sentences in (1). You need to include a set of phrase structure rules and a set of transformation rules (if necessary).

QUESTION 2. Draw a detailed tree diagram for sentence (1e).

QUESTION 3. Why are the sentences in (2) ungrammatical in Peñoles Mixtec?

QUESTION 4. Give the Mandarin equivalents of (2a) and (2b). Are the Mandarin sentences grammatical in your judgment? If yes, explain why the same sentences are grammatical in Mandarin, but not in Peñoles Mixtec? If not, explain why not.