Fourth Hong Kong Linguistics Olympiad

February 20, 2022

Problems

- Listen carefully to the invigilators and follow their instructions.

- The contest lasts four hours. The problem set consists of 6 pages and it contains four problems. You may solve the problems in any order.

- You are not allowed to use any electronic device, written or printed material or other external sources of information during the contest.

- If you have a question about any of the problems, put up your hand and ask an invigilator. The invigilator will consult with the jury before answering.

- Rules for writing out solutions:

  - Do not copy the statements of the problems.
  - Write down your solution to each problem on a separate sheet or sheets.
  - Use only the front side of the answer sheet.
  - On each sheet, indicate your name, the number of the problem, and the page sequence of that sheet within the problem, e.g.:

Name	. . .
Problem #	4
Page #	1 / 3

Name	. . .
Problem #	4
Page #	2 / 3

Name	. . .
Problem #	4
Page #	3 / 3

    (meaning first, second, and third sheet of three for the fourth problem.)

    Otherwise, your work may be mislaid or misattributed.

  - Unless stated differently, you should describe any patterns or rules that you identified in the data. Otherwise, your solution will not be awarded full marks.

Problem 1 (25 points).   Here are some verb roots in Barupu and their English translations:

kwau	*to vomit*	**ropoe**	*to deceive*	**ura**	*to swim*
kinakina	*to think*	**pako**	*to be big*	**yara**	*to see*
risii	*to smell*				

Now you are given some sentences in Barupu together with their English translation:

kempupu	*I*(F) *flew.*	**koaichori**	*She sneezed.*
namapupu	*You*(SG, M) *will fly.*	**nanaroponey**	*I*(M) *will deceive them*(M).
kenute	*I*(F) *walked.*	**nengkwanu**	*I*(F) *will vomit.*
nawte	*He will walk.*	**kemitimere**	*We opened them*(F).
kanayaraw	*I*(M) *saw her.*	**kereytiromi**	*They*(F) *threw us.*
kemirinu	*We pulled her.*	**kenitinow**	*I*(F) *threw her.*
kakwaru	*He vomited.*	**nakompu**	*He will fight you*(PL, M).
noyaraka	*She will see him.*	**kerekwaru**	*They*(F) *vomited.*
nekinakina	*They*(M) *will think.*	**nemiropomepu**	*We will deceive you*(PL, M).
kemyaichomi	*We sneezed.*	**natirere**	*He will open them*(F).
konrini	*You*(SG, F) *pulled them*(M).		

(a) Translate into English:

1. **kekonu**
2. **nentinew**
3. **karoporere**
4. **nompako**

(b) Translate into Barupu:

5. *She will throw them*(M).
6. *We smelled her.*
7. *You*(SG, F) *will fight them*(M).
8. *She swam.*

(c) You are reading an old grammar book of Barupu, trying to find the root of the verb *to fold*. On that page, you encounter the sentence **nemipori** written on the side of a page (which contains the verb *to fold*). Nevertheless, both the verb root and the translation of this phrase are missing. What could the root of the verb *to fold* be and what is the meaning of the sentence you found? Write all posibilities.

⚠   Barupu is the name of speakers use to refer to the language Bauni. It belongs to the Piore River branch of the Skou family and it is spoken by approx. 300 people in the Sandaun Province of Papua New Guinea.

ng = *ng* in *king*; **w** = *w* in *week*; **y** = *y* in *yam*.

M = masculine; F = feminine; SG = singular; PL = plural.

—Gustavo Palote

Problem 2 (25 points).   Here are some sentences in Solresol written in the original musical notation and their English translations:

1.

The very good brothers cry because the white dog(M) *left.*

2.

The worst sister mounted our horse(M)*.*

3.

My horse(M) *does not see the small cows.*

4.

Your(SG) *mother would be happy if the old mare lives.*

5.

A dog(F) *will leave if the black bulls come.*

6.

The grandmothers laugh because the sons were happy.

7.

A sad sister will leave if her mother cries.

8.

Our dogs(F) *die if their mothers would not love them.*

9.

Old people will close the very small museum.

10.

The oldest cows did not leave because they are happy.

(a) Translate into English:
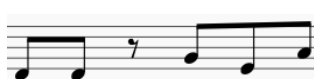
11.

12.

13.

Below are some more constructions in Solresol and their English translations <u>in random order</u>:

14.

15.

16.

17.

18.

19.

20.

21.

a. *cousin*(M)

b. *Eat!*

c. *to eat*

d. *forgetful*

e. *king*

f. *pig*(M)

g. *queen*

h. *(he) had remembered*

(b) Make the correct correspondences.

(c) Write in Solresol:

22. *A happy cousin*(F) *had eaten a cow.*
23. *Kings would die if their young pigs*(F) *got blind.*
24. *My biggest dog*(F) *does not remember if a bull lives.*
25. *Your*(PL) *grandfather was sad because the youngest son opened a very small museum.*

⚠ Solresol is a constructed language devised by François Sudre in the 1820s. It was originally called *Langue universelle* and later *Langue musicale universelle.*

A *mare* is a female horse.

M = masculine; F = feminine; SG = singular; PL = plural.

—*Vlad A. Neacșu*

Problem 3 (25 points). Here are some words written in Arabic and transcribed in different Arabic dialects in the Arabizi system, together with their English translation:

Arabic script	N. Levantine	Sudanese	Tunisian	Moroccan	Translation
صغير			**93'eer**	**93'ir**	*small*
ضباب	**9'abaab**	**9'abaab**		**9'bab**	*fog*
جناح		**ganaa7**	**jnaa7**		*wing*
ريشة	**reeche**		**reecha**	**richa**	*feather*
خاف	**7'aaf**	**7'aaf**	**7'aaf**	**7'af**	*to fear*
شم	**cham**	**$am**	**cham**		*to smell*
ثلاثة	**talaate**	**talaata**	**thlaatha**	**tlata**	*three*
قديم	**2adeem**	**gadeem**	**8deem**	**8dim**	*old*
قليل	**2aleel**	**galeel**		**8lil**	*few*
قمر	**2amar**	**gamar**		**8mr**	*moon*
قتل	**2atal**		**8tal**		*to kill*
بصق	**ba9a2**	**basag**	**b9a8**	**b98**	*to spit*
هذا			**hatha**	**hda**	*this*
قريب	**gareeb**	**gareeb**	**8reeb**	**8rib**	*near*
غابة		**3'aaba**			*forest*
أبو		**aboo**	**bou**	**bou**	*father*
خيط		**7'aya6**		**7'y6**	*to sew*
إذا	**iza**		**eetha**	__(1)__	*if*
دودة		__(2)__	__(3)__		*worm*
جبل	**jabal**	__(4)__	__(5)__		*mountain*
نفخ		**nafa7'**	__(6)__		*to blow*
طريق		__(7)__		__(8)__	*road*
ضرب		__(9)__	**dhrab**	__(10)__	*to hit*
ريح		**ree7**	__(11)__	__(12)__	*wind*
قصير			__(13)__	__(14)__	*short*
ثقيل		__(15)__	__(16)__	__(17)__	*heavy*
عاش	__(18)__	__(19)__	__(20)__		*to live*

(a) Fill in the blanks.

⚠ The Arabic chat alphabet (Arabizi) is an informal Romanization method commonly used on social media for various colloquial varieties of Arabic. Arabic is a Semitic language spoken by approx. 520 million speakers, with various varieties such as Northern Levantine (spoken in Syria and Lebanon), Sudanese (Sudan), Tunisian (Tunisia), and Moroccan (Morocco).

—Tung-Le Pan

Problem 4 (25 points). Here are all the positive multiples of 9 smaller than 100 written out in Lutos, <u>in random order</u>:

a.	**b'u zo ᵐbakad'ɛ**	g.	**unda so zo b'u**
b.	**kal b'u**	h.	**unda so zo b'u zo kal b'u**
c.	**unda d'oi zo b'u zo mi zo d'oi**	i.	**unda so zo d'oi**
d.	**unda d'oi zo kal ᵐbakad'ɛ**	j.	**unda zio zo b'u zo so**
e.	**unda muta zo b'u zo zio**	k.	**unda zio zo mi**
f.	**unda muta zo muta**		

(a) Make the correct correspondences.

(b) Write the following equations with numbers:

(1) $$\textbf{ᵐbakad'ɛ} \times \textbf{unda d'oi zo mi} = \textbf{ᵐbambo zio}$$
(2) **unda so zo d'oi** + **unda muta zo b'u zo kal b'u** = **ᵐbambo d'oi zo unda muta**

(c) Write in Lutos: 16, 20, 39, 46, 100, 363, 477, 800.

⚠ Lutos (or Ruto) belongs to the Bongo-Bagirmi branch of the Central Sudanic languages. It is spoken by approx. 19,000 people in the Central African Republic and Chad.

    b', **d'**, and **ᵐb** are consonants; **ɛ** is a vowel.

    The language has two tones, but they were not considered in this problem for the sake of simplicity.

—Vlad A. Neacșu

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Editors: Farhan Ishraq, Vlad A. Neacșu, Tung-Le Pan, Gábor Parti

Good luck!