

# Team selection for the XX International Linguistics Olympiad

Second round, 16 April 2023

Each of the five problems is worth 20 points

The contest lasts 5 hours

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## 1. Doromu-Koki

*Peter Arkadiev*

Given below are sentences in the Doromu-Koki language and their English translations:

1	<b>Na vareyakari ya dairiyo.</b>	While I was sleeping, you (sg.) returned.
2	<b>Na nega ago niyaka.</b>	While I was descending, I talked.
3	<b>Una nega ita ruyafa.</b>	While we were descending, we gathered brushwood.
4	<b>Ya iruku iriyoma ina dairiyadi.</b>	When you (sg.) ate, they returned.
5	<b>Ya ita rusi koru iriyadi.</b>	When you (pl.) gathered brushwood, you (pl.) drank water.
6	<b>Ina tauga iriyori una ago niyafa.</b>	While he was eating a banana, we talked.
7	<b>Ina neyoma na boyaka.</b>	When he descended, I ascended.
8	<b>Ina dairisi iruku iriyadi.</b>	When they returned, they ate.

**Task 1.** Translate into English:

9	<b>Ina boga koru iriyadi.</b>	11	<b>Na dairiyakama ina tauga iriyo.</b>
10	<b>Ya varesi boyo.</b>	12	<b>Ya ago niyadiri na iruku iriyaka.</b>

**Task 2.** Translate into Doromu-Koki:

13	While we were sleeping, you (pl.) ate.	15	When you (pl.) returned, I slept.
14	When you (sg.) drank water, you (sg.) descended.	16	While he was talking, he gathered brushwood.

**Task 3.** Try to translate into English the words **iruku** and **ago**.

**Note.** Doromu-Koki is a Manubaran language. It is spoken by about 1500 people in the southeast of New Guinea Island, including in the city of Port Moresby, the capital of the state of Papua New Guinea.

## 2. Prakrit

Qiu Ao

Here are some words in Prakrit written in the Kharoṣṭhi script, as well as their Latin transliterations and English translations:

Kharoṣṭhi	Transliteration	Translation
𑀧𑀺𑀢𑀺	<b>aṡanaṡmi</b>	in Aṡana ( <i>river</i> )
𑀕𑀺𑀢𑀺	<b>cojhbo</b>	cozbo ( <i>title</i> )
𑀧𑀺𑀢𑀺	<b>durbale</b>	weak
𑀧𑀺𑀢𑀺	<b>ḍhapḡeya</b>	Ḍhapḡeya ( <i>name</i> )
𑀧𑀺𑀢𑀺	<b>prṡheṡu</b>	at the back
𑀧𑀺𑀢𑀺	<b>tasmartha</b>	for that reason
𑀧𑀺𑀢𑀺	(1)	mare given as payment
𑀧𑀺𑀢𑀺	(2)	he said
𑀧𑀺𑀢𑀺	(3)	he died
𑀧𑀺𑀢𑀺	(4)	they will do
𑀧𑀺𑀢𑀺	(5)	he dies
𑀧𑀺𑀢𑀺	(6)	to stay
𑀧𑀺𑀢𑀺	(7)	(8)
𑀧𑀺𑀢𑀺	(9)	(10)
(11)	<b>agachaṡti</b>	they come
(12)	<b>biṡnita</b>	he broke
(13)	<b>cmaka</b>	Cmaka ( <i>name</i> )
(14)	<b>ichati</b>	he wants
(15)	<b>jheniḡa</b>	under the care of
(16)	<b>kariṡyatu</b>	you (sg) will do
(17)	<b>kartavya</b>	to be done
(18)	<b>ṡna</b>	debt
(19)	(20)	they want

**Task.** Fill in the blanks.

**Примечание.** Prakrit is an extinct Indo-Aryan language which was spoken around 2 thousand years ago in the present-day India. *ch, ḍh, jh, ṡ, th, ṡh* and *y* are consonants; *ṡ* is a vowel. A mark above or below a letter denotes a small change in the sound quality.

### 3. Manx

*Irina Česnokova*

Given below are sentences in the Manx language and their translations into English:

1	<b>Deayrtee eh yn ushtey foyd.</b>	He will pour water under you (sg.).
2	<b>Cha goad mee peccagh jiu as ee.</b>	I didn't protect one of you (pl.) and her.
3	<b>Chloie shiu roish y vadrán.</b>	You (pl.) played before the dawn.
4	<b>Kianglee oo y tead rish e doagh.</b>	You (sg.) will tie the rope to his container.
5	<b>Chiangle mee y driaght ree as rish.</b>	I tied the chain to her and him.
6	<b>Cloiemayd marish as marish e shuyr.</b>	We will play with him and his sister.
7	<b>Tayrnym y driaght hiu.</b>	I will pull the chain towards you (pl.).
8	<b>Cha glennym fo as fo e doagh.</b>	I won't wipe under him and under his container.
9	<b>Phaag shin y mac royd.</b>	We kissed the son before you (sg.).
10	<b>Cha deayrt oo yn ushtey fo e eaddagh.</b>	You (sg.) won't pour water under his clothes.
11	<b>Cha gow shiu yn ooyl voish y mac.</b>	You (pl.) won't take the apple away from the son.
12	<b>Cha dayrn eh y tead marym.</b>	He didn't pull the rope with me.

**Task 1.** Translate into English:

13	<b>Coadee ee y mac voym.</b>	16	<b>Gowee shiu y tead roee.</b>
14	<b>Paagmayd eh.</b>	17	<b>Cha gloie shin.</b>
15	<b>Glennee oo marin.</b>	18	<b>Ghow mee y driaght voish e shuyr.</b>

**Task 2.** Translate into Manx:

19	You (sg.) didn't pour water under me and under her.	22	She won't pull the clothes towards me.
20	He won't tie one of us.	23	You (pl.) won't kiss the sister before us.
21	We protected the sister from you (sg.).	24	You (sg.) won't play with her and with his sister.

**Note.** The Manx language belongs to the Celtic group of the Indo-European language family. About 1,800 people speak it on the Isle of Man (United Kingdom). The letter *c* at the beginning of a word is pronounced as *k*, *ch* is similar to *ch* in *loch*, *gh* – to Ukrainian *z*, *ph* – to *f*.

#### 4. Kanala and Tinrin

*Svetlana Burlak & Mikhail Zhivlov*

The peoples who now speak the languages of Kanala and Tinrin were once a single people who spoke the same language. Some time after the separation of this language, the peoples began to contact again, and many words from Kanala were borrowed into Tinrin.

Given are some words in the Kanala language and their translations into Tinrin:

Kanala	Tinrin	Translation
mē	bē	arm, branch
b <sup>w</sup> ii	b <sup>w</sup> ii	taro variety
nṣṣ	dṣṣ	tip
ciio	ṭiio	bird species
k <sup>w</sup> iε	wie	rain
b <sup>w</sup> iyaa	p <sup>w</sup> iyaa	to stink
gɔɔ	koo	to be sick
penāā	penāā	mast
p <sup>w</sup> ārə	p <sup>w</sup> ārə	to cultivate the taro field
dāē	dāē	hardwood for a spear-thrower
g <sup>w</sup> a	g <sup>w</sup> a	secondary shoot of yam

Kanala	Tinrin	Translation
ñā	ḍā	to fill up
pṣ	ṣ	pit
jiā	ḍiā	weapon
gε	ke	you (sg.)
ka	a	enemy
cī	ī	to jump
bu	pu	smell
kāā	kāā	skinny
nia	nia	to clear the field
ba	ba	boiled taro stems
katara	katara	carved figure on the threshold

**Task 1.** Determine which of the given words in Tinrin are inherited from the common ancestor language and which are borrowed from Kanala, given that there is an equal number of both.

**Task 2.** Fill in the blanks, given that all words in the left column are inherited from the common ancestral language, and the right column contains only borrowings from Kanala into Tinrin:

Kanala	Tinrin	Translation
p <sup>w</sup> ii	(1)	to open
(2)	tia	spoiled
ŋũ	(3)	to move
kẽ	(4)	to burn
dɔɔ	(5)	earth
(6)	t̥i	to nurse

Kanala	Tinrin	Translation
ga	(7)	to cut wood
dɔɔ	(8)	reed flute
(9)	t̥aa	to shine
p <sup>w</sup> ẽ	(10)	sea turtle
cɛɛ	(11)	edge of reed mat
(12)	ŋ̃ɔ̃	drunk

**Note.** The Kanala and Tinrin languages, spoken in the southern part of the island of New Caledonia, belong to the New Caledonian subgroup of the Oceanian group of the Malayo-Polynesian branch of the Austronesian language family. About 300 people speak the Tinrin language, while about 4 thousand people speak the Kanala language.

The vowels  $\varepsilon$  and  $\text{ɔ}$  are similar to  $e$  and  $o$ , respectively, but are pronounced with a more widely opened mouth; the symbol  $\sim$  over a vowel indicates that this vowel is pronounced nasally;  $\text{ə}$  is a special vowel;  $w$  is pronounced approximately like the English  $w$ ;  $^w$  denotes a rounded (involving lip rounding) pronunciation of a consonant; the consonants  $d$ ,  $t$ , and  $n$  are pronounced roughly the same as in English, while consonants  $\underset{d}{d}$ ,  $\underset{t}{t}$ , and  $\underset{n}{n}$  are pronounced like the Ukrainian  $\text{d}$ ,  $m$ , and  $n$  respectively; the consonants represented by the letters  $b$ ,  $\underset{d}{d}$ ,  $d$ ,  $j$ , and  $g$  have a nasal onset (i.e., they are pronounced approximately as  $mb$ ,  $\underset{d}{nd}$ ,  $nd$ ,  $\tilde{n}j$ , and  $\eta g$ );  $c$  is pronounced like  $ch$ ,  $\tilde{n}$  is a nasal consonant formed in the same place as  $c$  and  $j$  (pronounced similarly to  $\text{н̃}$  in the Ukrainian word  $\text{кин̃ь}$ ),  $\eta$  is a nasal consonant formed in the same place as  $k$  and  $g$  (pronounced approximately like the English  $ng$  in the word *long*).

*Taro* is a widespread tropical agricultural crop.

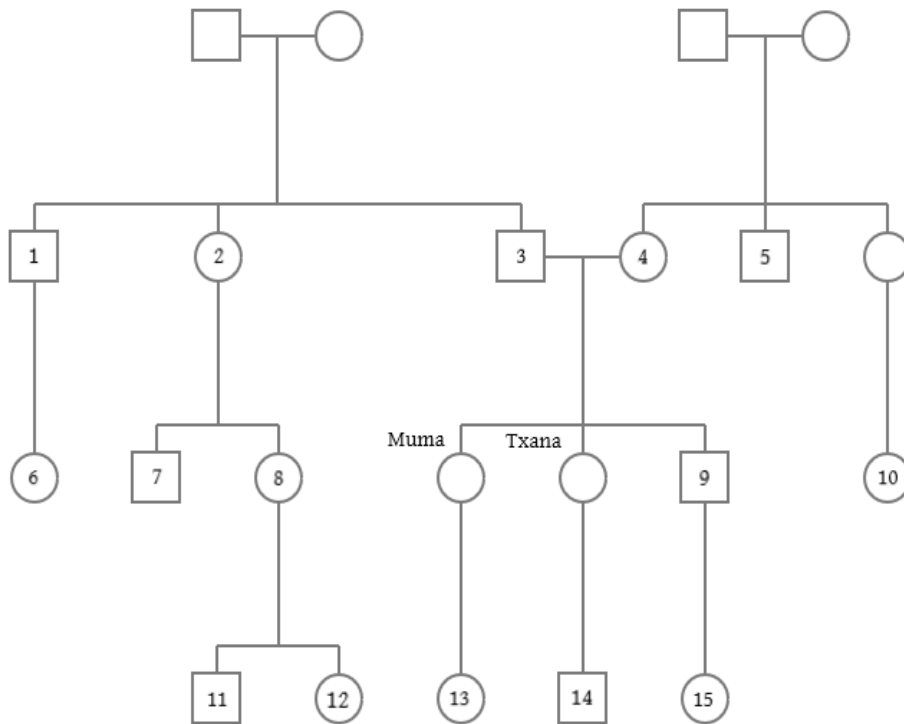
*Yam* is a plant whose tubers resemble potatoes and are used for food.

## 5. Arara

*Maria Eduarda Freitas*

Ukarãngmã (also known as the Arara of Pará) is a tribe living in matrilineal houses. This means that when a man gets married, he moves with his wife's family. Thus, it is considered that the men of this tribe belong to two houses: his original house as well as the house of his new family.

Below is given a family tree spanning different houses. Squares represent men, while circles represent women. Vertical lines represent children:



Below are given, in the Arara language, statements of some members of this family, describing their relationships with some other family members:

	About people from their houses	About people from other houses
<b>Muma</b>	<p><b>papa Iptximaum</b>  <b>jeme Tiapko</b>  <b>iwon Tema</b>  <b>ibin Riten</b>  <b>jenaruam Txana, Tintim</b>  <b>imrenengam Kubenete, Kowik</b></p>	<p><b>itamko Arapuka</b>  <b>jengpi Poti</b>  <b>jemenengam Mandau, Tjeli</b>  <b>iwon Iaut</b>  <b>jenaruam Kaiana, Tixibie</b>  <b>ibin Karaja</b></p>
<b>Tintim</b>	<p><b>jeme Tiapko</b>  <b>iwonengam Tema, Iptximaum</b>  <b>ibin Riten</b>  <b>jenaruam Muma, Txana</b>  <b>imrenengam Kubenete, Kowik</b></p>	—
<b>Mandau</b>	<p><b>papa Arapuka</b></p>	<p><b>itamkonengam Iptximaum, Tema</b>  <b>jengpinengam Tiapko, Poti</b>  <b>jemenengam Muma, Txana, Tintim, Tjeli</b>  <b>jenaruam Kubenete, Tixibie, Kaiana</b></p>
<b>Tixibie</b>	<p><b>papa Riten</b></p>	<p><b>itamko Iaut</b>  <b>jemenengam Kubenete, Kaiana</b>  <b>iwonengam Karaja, Kowik</b></p>

**Task 1.** Assign a name to each of the persons 1—15 in the diagram above.

**Task 2.** Which kinship term would be used:

by **Txana** for **Kowik**;

by **Kubenete** for **Iptximaum**;

by **Kaiana** for **Potĩ**?

**Note.** Arara of Pará is a Cariban language spoken by around 340 Arara people in Brazil.

*tx* is pronounced like *ch*, *j* – like *y* in *yes*, *ŋ* – like *ng* in *long*, *ĩ* – similar to *u* in *but*.